



Perceived social support and sense of meaning in life of Chinese rural college students: A coping style and psychological resilience moderated mediation model

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Abstract: This study explored how perceived social support (PSS) influences the sense of meaning in life (SML) among rural college students, considering positive coping styles (PCS) as a mediator and psychological resilience (PR) as a moderator. 1444 college students (females; 23.55% only child; $M_{age} = 19.76$ years, $SD = 1.07$; 76.66%) were recruited from Jilin province in China. The college students self-reported their perceived social support and positive coping styles, psychological resilience, and sense of meaning in life. The results indicated that higher perceived social support predicted higher college students' sense of meaning in life. Perceived social support positively contributes to college students' sense of meaning in life through the mediating role of positive coping styles. Psychological resilience moderates the first path of the indirect association, where the positive effect of perceived social support on positive coping styles is more pronounced in college students with higher psychological resilience compared to those with lower psychological resilience. These align with Social Support Theory and Psychological Resilience Theory. That is, individuals with effective social support systems can enhance their positive coping styles, thereby increasing their sense of meaning in life, while psychological resilience strengthens the positive impact of perceived social support on positive coping styles. These findings offer the evidence for intervening and supporting the development of college students' sense of meaning in life. To enhance rural college students' sense of meaning in life, it is essential to establish a comprehensive social support system, promote the development of positive coping styles, and provide targeted training to strengthen psychological resilience.

Keywords: perceived social support; sense of meaning in life; positive coping styles; psychological resilience; rural college students

Introduction

College students as emerging adults are working on the their sense of meaning in life to be who they are. They have begun to resist the gradual “involutionalization” of the social development model (Li & Yang, 2024). Most rural college students in China come from resource-deprived rural areas, with relatively poor family economic conditions and traditional educational values (Ma, 2015). Due to their long-term life in rural areas, many rural students face significant cultural adaptation challenges when they enter university (Xiao & Wu, 2019). Among them, rural students' mental health levels are generally lower than those of urban students (Guo et al., 2013; Zhang et al., 2017). It has been found that rural college students are generally weaker in interpersonal skills, and after entering urban universities, they are subjected to greater impacts in terms of both their living habits and ways of thinking, and their life adaptation pressures and relationship distress are significantly higher than those of urban students (Zhang, et al., 2020). In addition, those from rural areas are more prone to psychological maladjustment being away from their families of origin (Hu et al., 2023), risking lower sense of meaning in life. According to Steger et al. (2009), meaning in life encompasses an individual's perception that their existence holds purpose, direction, and intrinsic value. It is a key indicator of psychological well-being (Wang et al., 2022; Hooker et al., 2018). To flourish their sense of meaning, people need social support

from others going beyond trivial and transient events, set meaningful life goals, use their life energy to realize a desired future, and experience life as worth living. Xiao (1994) conceptualized social support as a multifaceted construct, including perceived emotional backing, tangible assistance, and the individual's engagement with available resources. With college students, their meaning in life futures would depend on sense of coping and psychological resilience in way less well explored among those from rural areas. Coping style refers to the mental and behavioral strategies individuals adopt to relieve psychological stress when encountering difficult or stressful situations, and it is generally divided into positive and negative types (Lazarus & Folkman, 1984; Xie, 1998). Psychological resilience is defined as the personal qualities and psychological strengths that help individuals withstand adversity (Connor & Davidson, 2003), (Connor & Davidson, 2003) or the psychological capitals of an individual (Luthan et al., 2007). The present study aimed to explore the potential mechanisms underlying the association between perceived social support and sense of meaning in life among Chinese rural college students.

Perceived social support and sense of meaning in life

Social support typically encompasses various forms of assistance from family, friends, and other social networks (Zimet et al., 1988). According to social support theory, individuals who have access to reliable support systems



tend to experience more positive emotions and receive consistent feedback (Cohen & Wills, 1985). Relationships and social support are important to all people, regardless of culture. Those who live in collectivist societies, such as China, may prioritize social interactions more (Wong & Tjosvold, 2006). Good social relationships and social support are important sources of sense of meaning in life (Liu et al., 2020; Zhang et al., 2016; King & Hicks, 2021). Meaningful relationships with family, friends, and close companions, alongside feelings of belonging and closeness, contribute significantly to a richer sense of meaning in life (Krause, 2007; Elizabeth & Chang, 2021; Stavrova & Luhmann, 2015). The study found that over time, adults who reported more support and less stress in their social relationships were more likely to increase their sense of purpose (Weston et al., 2021). On the contrary, social exclusion and ostracism can lead to a feeling that life is meaningless (Krause, 2007; Lambert et al., 2013).

Recent studies have also found that perceived social support significantly predicts Chinese college students' sense of meaning in life. In China, college students from rural areas are still at a relative disadvantage compared to those from urban areas (Rui, 2020). However, few studies have focused on the special group of Chinese rural college students. Compared with college students from urban areas, perceived social support plays a more important role in this special group of rural Chinese college students and may influence the formation and development of their sense of meaning in life. Therefore, we recruited a sample of Chinese rural college students to examine this relationship, which enriches the research on Chinese rural college students' sense of meaning in life.

Positive coping styles as a mediator

A positive coping style involves using cognitive or behavioral efforts aimed at achieving constructive results when dealing with stressful experiences (Wu et al., 2020). Social support can affect an individual's coping style (Dong et al., 2019). Individuals who experience emotional support and understanding in their relationships are more prone to adopt positive coping styles (Shen et al., 2018). When the level of perceived social support is lower, individuals are more likely to adopt relatively negative coping styles, such as avoidance (Meng & Ma, 2019). Other researchers have studied college students with traumatic childhood experiences and have found that the higher the level of perceived social support, the more likely such college students are to adopt positive coping styles with negative life events (Zhou et al., 2024). At the same time, positive coping styles are related to the individual's sense of meaning in life. Individuals who utilize positive coping styles are more likely to experience a stronger sense of meaning in life, whereas those who rely on negative coping styles often report a diminished perception of life's meaning (Li et al., 2014).

Psychological resilience as a moderator

According to resilience theory and the risk-buffering framework, psychological resilience acts as an internal safeguard that mitigates the detrimental effects of various risk factors, thereby fostering healthier developmental

outcomes by cushioning individuals from potential harm (Fergus & Zimmerman, 2005; Hollister-Wagner et al., 2001). This means that individuals who are more psychological resilience, as opposed to those who are less psychological resilience, are typically more adaptive and flexible, which allows them to better integrate and utilize social support in order to adapt to different challenging and stressful situations using more positive coping styles, resulting in a higher level of sense of meaning in life (Cai, 2010). Thus, with the help of high levels of psychological resilience, perceived social support can be more effective in promoting positive coping styles.

Goals of the study

Building on the above review, this study aimed to examine the relationship between perceived social support and sense of meaning in life among rural college students, with positive coping styles serving as a mediator and psychological resilience acting as a moderator. We proposed a moderated mediation model (Figure 1) to examine whether (a) perceived social support is related to rural college students' sense of meaning in life, (b) positive coping styles mediates the relation between perceived social support and rural college students' sense of meaning in life, and (c) psychological resilience play a moderating role in the influence mechanism?

Aligned to these research questions, we proposed the following hypotheses:

H1: Higher perceived social support of college students predict higher sense of meaning in life.

H2: Positive coping styles plays a mediating role in the relationship between perceived social support and sense of meaning in life for higher sense of meaning in life.

H3: Psychological resilience moderates the first path of the indirect association, where the positive effect of perceived social support on positive coping styles is more pronounced in college students with higher psychological resilience compared to those with lower psychological resilience.

Methods

Participants and setting

A total of 1444 rural college students from a normal university in Jilin Province, China, participated in the study. By sociodemographics, 76.66% are females, 23.55% are only child. Furthermore, 44.5%, 54.29%, 0.42%, and 0.76% were freshmen, sophomores, juniors, and seniors, respectively. Participants' average age was 19.76 years ($SD = 1.07$). The age distribution ranged from 16 to 29 years.

Measures

The perceived social support scale

The Perceived Social Support Scale (PSSS) (Zimet et al., 1988; Jiang, 2001) consists of 12 items on assessing support from friends, others and family. Sample items are "I can rely on my friends when things go wrong" and "I can receive emotional help and support from my family when needed". The items are on a 5-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. Higher scores indicate greater perception of social support.

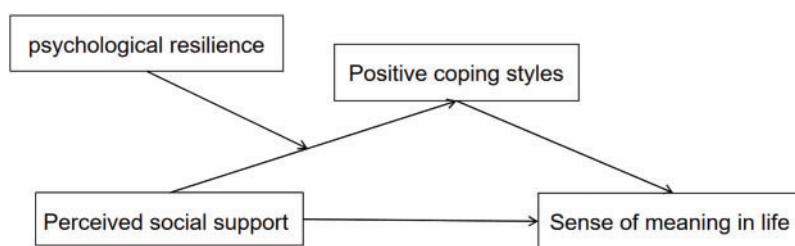


Figure 1. The proposed model

The Cronbach's α coefficient for PSSS scores a previous study was 0.88, indicating good reliability (Zimet et al., 1988). In this study, the Cronbach's α coefficients for family support, friend support, and other support were 0.952, 0.962, and 0.948, respectively. The Cronbach's α coefficient for the total scale was 0.970.

Simplified coping style questionnaire (SCSQ)

The Simplified Coping Style Questionnaire (SCSQ; Xie, 1998) is a 20-item instrument assessing individuals' typical strategies in response to stress. Items 1 through 12 evaluate positive coping approaches (e.g., "seek advice from relatives, friends, or classmates"), while items 13 to 20 measure negative responses such as substance use or emotional eating. Responses are given on a 4-point frequency scale from 1 ("not adopted") to 4 ("frequently adopted"). Only the positive coping subscale was utilized in the present study. This subscale demonstrated excellent internal reliability, with a Cronbach's α coefficient of 0.967.

Psychological resilience scale

The Psychological Resilience Scale (Connor & Davidson, 2003; Xu et al., 2016) includes 17 items that assess individual resilience across four domains: tenacity, self-regulation, goal orientation, and social adaptability. An example item is "I will not be discouraged by failures". Respondents rated each item on a 5-point scale (1 = very inconsistent to 5 = very consistent). Average scores were computed, with elevated scores indicating higher levels of psychological resilience. In this study, internal consistency coefficients for the four dimensions were 0.946 (tenacity), 0.898 (self-regulation), 0.961 (goal orientation), and 0.896 (social adaptability), with the full scale achieving an α of 0.975.

The sense of meaning of life questionnaire

The Chinese version of the Meaning in Life Questionnaire (MLQ-C; originally developed by Steger et al., 2006 and localized by Liu & Gan, 2010) includes two distinct sub-dimensions: presence of meaning and search for meaning, each with five items. Example statements include "I have already found a life purpose that satisfies me" (presence) and "I am searching for the meaning of my life" (search). Responses were recorded on a 7-point Likert scale ranging from 1 (completely untrue) to 7 (completely true), with the second item reverse-scored. Greater total scores reflect a stronger perceived sense of life meaning. The overall scale exhibited high internal consistency (Cronbach's

$\alpha = 0.928$), with the two subscales yielding α values of 0.839 and 0.937, respectively.

Procedure

The study received approval from the corresponding author's University Ethics Committee. Students' consent was obtained for the survey, with assurances of voluntary, anonymous, and confidential participation. Data were collected online.

Data analysis

IBM SPSS (version 22.0) was used for common method bias testing, descriptive statistics, and correlation analysis, while AMOS 24.0 was used for structural equation modeling and bootstrap analysis. The bootstrap method involved 5000 resamples to estimate 95% confidence intervals.

Common Method Bias Test. In this study, a one-factor confirmatory factor analysis was conducted to assess common method bias for all items. The results indicated poor model fit, with $\chi^2/df = 26.173$, GFI = 0.335, NFI = 0.658, RFI = 0.644, TLI = 0.653, and RMSEA = 0.132. Thus, no significant common method bias was identified. (Zhou & Long, 2004).

A mediation model with the positive coping styles as a mediator was tested using AMOS 24.0. The data were standardized prior to analysis, and bootstrap resampling (5000 iterations) was used to estimate 95% confidence intervals.

Results

Descriptive statistics and correlation

Pearson correlation was applied to assess the variables in this study, and the results are presented in Table 1. The analysis revealed significant positive correlations between college students' perceived social support, positive coping styles, psychological resilience, and sense of meaning in life, with all dimensions showing significant positive bidirectional correlations.

A Moderated Mediation Model

Test of the mediating effect

Testing the mediation model revealed a good fit: $\chi^2/df = 8.959$, RMSEA = 0.074, CFI = 0.993, GFI = 0.987, AGFI = 0.960, NFI = 0.992, and IFI = 0.993.

Table 2 shows that perceived social support directly influences the sense of meaning in life, with a coefficient of 0.472 (95% CI [0.372, 0.673], $p < 0.001$), indicating that parents' perceived social support positively predicts sense of meaning in life. Hence, **Hypothesis 1 was supported**. The indirect effect of the perceived social

Table 1. Descriptive analysis and correlation matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. PSS	—												
2. FaSu	0.951***	—											
3. FrSu	0.954***	0.837***	—										
4. OS	0.976***	0.898***	0.916***	—									
5. PCS	0.703***	0.669***	0.674***	0.683***	—								
6. PR	0.809***	0.776***	0.768***	0.787***	0.718***	—							
7. SA	0.763***	0.724***	0.724***	0.750***	0.656***	0.914***	—						
8. GO	0.763***	0.727***	0.728***	0.744***	0.665***	0.938***	0.830***	—					
9. tenacity	0.772***	0.742***	0.733***	0.749***	0.689***	0.968***	0.834***	0.885***	—				
10. self-control	0.739***	0.721***	0.697***	0.710***	0.682***	0.929***	0.780***	0.809***	0.892***	—			
11. SML	0.659***	0.626***	0.632***	0.641***	0.692***	0.704***	0.636***	0.674***	0.675***	0.655***	—		
12. SM	0.603***	0.564***	0.578***	0.595***	0.631***	0.625***	0.561***	0.610***	0.593***	0.582***	0.912***	—	
13. PM	0.605***	0.583***	0.581***	0.579***	0.636***	0.664***	0.603***	0.624***	0.642***	0.618***	0.921***	0.679***	—
M	3.848	3.806	3.862	3.875	3.052	3.787	3.807	3.917	3.762	3.671	4.971	5.185	4.799
SD	0.796	0.856	0.819	0.811	0.646	0.762	0.797	0.808	0.818	0.818	0.994	1.189	1.001

Note. *** $p < 0.001$; PSS = Perceived social support (total), FaSu = Family support, FrSu = Friend support, OS = Other support, PCS = Positive coping styles, PR = Psychological resilience (total), SA = Social adaptability, GO = Goal orientation, SML = Sense of meaning in life (total), PM = The presence of meaning, SM = The search for meaning.

Table 2. Mediation analysis

	Estimate	Bias-corrected 95% CI			Percentile 95% CI			Percentage of effect
		Lower	Upper	<i>p</i>	Lower	Upper	<i>p</i>	
Indirect effect	0.432	0.359	0.507	***	0.357	0.506	***	47.79%
Direct effect	0.472	0.373	0.573	***	0.372	0.573	***	52.21%
Total effect	0.904	0.827	0.981	***	0.826	0.980	***	

Note. *** $p < 0.001$.

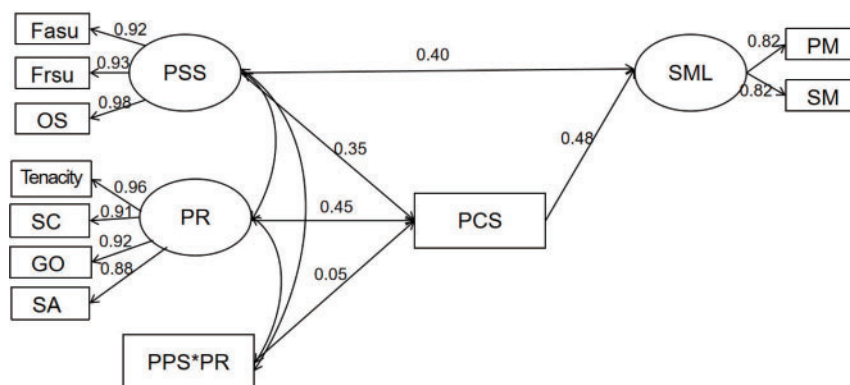


Figure 2. A moderated mediation model. PSS = Perceived social support, FaSu = Family support, FrSu = Friend support, OS = Other support, PCS = Positive coping styles, PR = Psychological resilience, SA = Social adaptability, GO = Goal orientation, SML = Sense of meaning in life, PM = The presence of meaning, SM = The search for meaning

support, positive coping styles, and sense of meaning in life was 0.432 (95% CI [0.357, 0.506], $p < 0.001$), with all confidence intervals not containing 0. Both direct and indirect effects were significant, indicating that the positive coping styles partially mediates the relationship between perceived social support and sense of meaning in life. Hence, **Hypothesis 2 was supported.**

Test of the moderated mediation model

In line with the proposed hypotheses, a latent variable structural equation model was developed, as illustrated in Figure 2. The model was evaluated using the bootstrap method with 5000 resamples and 95% confidence intervals, following the procedure outlined by Wen and Ye (2014). The results indicated a good model fit ($\chi^2/df = 12.700$, RMSEA = 0.090, CFI = 0.973, GFI = 0.941, NFI = 0.971, IFI = 0.973, TLI = 0.961). Psychological resilience was found to positively and significantly predict positive coping styles ($\beta = 0.445$, 95% CI [0.351, 0.536]). Additionally, the interaction between perceived social support and psychological resilience had a significant positive effect on positive coping styles ($\beta = 0.054$, 95% CI [0.023, 0.088]). Since the confidence interval did not include zero, this interaction was statistically significant, indicating that psychological resilience moderated the initial stage of the indirect relationship. Therefore, **Hypothesis 3 was supported.**

To further investigate the mechanism underlying the first stage of the mediation involving psychological resilience, the sample was divided into high ($M + 1SD$) and low ($M - 1SD$) resilience subgroups. A simple slope analysis was then conducted, and the results are

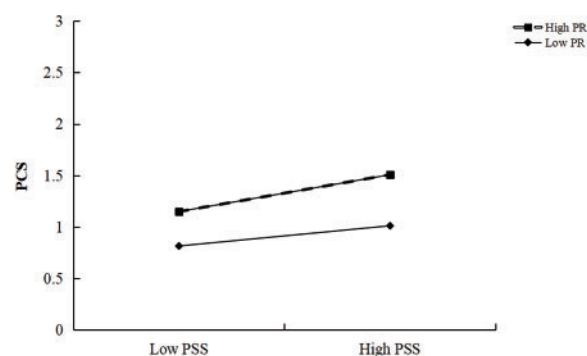


Figure 3. The moderating role of PR. PSS = Perceived social support, PCS = Positive coping styles, PR = Psychological resilience

illustrated in Figure 3. Among students with high psychological resilience, perceived social support showed a significant positive association with positive coping styles ($\beta = 4.549$, 95% CI [0.2706, 0.3762]). Although this relationship remained significant in the low-resilience group, its strength was notably reduced ($\beta = 3.026$, 95% CI [0.2113, 0.3118]).

Discussion

Our results indicated that higher perceived social support was associated with higher sense of meaning in life among rural college students. This finding can be explained by Social Support Theory in three aspects: first, when feeling more social support, the individual can construct his own positive belief system, he will have stronger motivation to pursue his existing goals, and enhance the sense of meaning in life (Snyder, 2002). Rural college students

experience more difficulty adjusting to college life than their urban counterparts, and positive support from family, friends, teachers and the community can enhance their confidence and quality of life. Social support also helps them to better face the challenges of life, and thus strengthen their sense of meaning in life (Liao & Huang, 2020; Jenkins et al., 2013; Trepte, et al., 2015). Second, Rural college students with high social support tend to have access to more resources, such as educational opportunities, economic assistance, and information resources important for their college life with sense of meaning (Awang et al., 2021). Third, When rural college students feel supported and recognized by society, they will feel that they are a useful part of society, and this sense of recognition can also enhance their sense of meaning in life (Lian, 2015).

Our results indicated positive coping styles mediated the relationship between perceived social support and sense of meaning in life of rural college students. In theory, college students perceived social support could have a positive effect on positive coping styles, which in turn helps stimulate their sense of meaning in life. Social support provides individuals with the necessary resources, such as information, material help, emotional comfort, etc., which helps individuals adopt more positive attitudes and actions in the face of stress and challenges (Shen et al., 2018). At the same time, positive coping styles are generally more effective in helping individuals to better solve problems and overcome difficulties, and the sense of accomplishment that comes from successfully coping with challenges can increase individuals' perceptions of control and understanding of their lives, and individuals who use positive coping styles tend to show higher levels of sense of meaning in life (Li et al., 2014).

This study found psychological resilience to moderate the mediating effect of positive coping styles in the relationship between perceived social support and sense of meaning in life for higher sense of meaning in life. According to the theory of psychological resilience (Gooding et al., 2012), individuals possess an inherent capacity to adjust and transform when confronted with stressful or adverse circumstances. This self-regulatory process emerges as individuals actively engage their internal strengths to cope constructively with external demands and challenges. Rural college students often face more severe existential problems, and the internal strengths of rural college students with high psychological resilience will help them to better utilize the power of social support to positively cope with life's challenges than those of rural college students with low psychological resilience (Amstadter et al., 2014; Gooding et al., 2012).

Implications for theory and practice

Although there is some evidence that perceived social support has an effect on sense of meaning in life, the underlying mechanisms of this correlation remain unknown. In addition, there are fewer studies on the relationship between perceived social support and sense of meaning in life targeting Chinese rural college students. The progression of online buzzwords from "Buddhist" to "lying flat" and more recently "swinging rotten" reflects more than

just playful or carefree language trends—it also reveals a growing existential anxiety among some college students, resulting in a weakened sense of direction and diminished clarity about life's meaning (Ling & Wang, 2023; Peng & Yu, 2023; Wu & Kong, 2019). This study findings provides some insights into the meaning of life education and mental health promotion of Chinese rural college students and even college students from less developed regions of the world, but will also provide inspiration for policy makers to narrow the urban-rural education gap and promote educational equity.

First, colleges and universities should pay attention to the social support system of rural college students to enhance their social ties and sense of belonging by establishing good teacher-student relationships and peer support groups, et cetera. Families should also endeavor to provide rural college students with emotional care, information help and resource support. Second, educators can help rural college students learn and adopt positive coping styles to face challenges and pressures in life through mental health education programs, guide students to identify and utilize their strengths, and develop problem-solving abilities and optimistic attitudes toward life. Third, schools can help students improve their psychological resilience through activities such as mental toughness training and stress management seminars.

Strengths, limitations, and future recommendations

This study makes two primary contributions to the existing body of literature. First, it adds valuable insights to the relatively limited research on rural college students, enhancing understanding of this underrepresented population. Second, it offers more robust empirical evidence on the association between perceived social support and sense of meaning in life, while further examining the underlying mechanisms involved in this relationship.

Despite its contributions, this study has several limitations. To begin with, the use of a cross-sectional, self-reported survey design restricts the ability to infer causality. Future research would benefit from employing longitudinal approaches to gain a deeper and more dynamic understanding of the relationships examined. Secondly, we only investigate the role of perceived social support, positive coping styles, and psychological resilience among rural college students and findings may be different for urban background college students. Moreover, the influence of other factors (e.g., personality traits, parent-child relationships, academic achievement and so forth) should be considered by future studies. Finally, this research relied exclusively on quantitative methods. Incorporating qualitative techniques, such as in-depth interviews with rural Chinese college students, could offer richer perspectives and help validate the current findings.

Conclusion

In conclusion, we found that perceived social support is positively related to Chinese rural college students' sense of meaning in life, and positive coping styles partially mediated this relationship. Moreover, psychological resilience moderates the mediating effect of positive coping styles in the relationship between perceived social

support and sense of meaning in life, which means that this mediating effect is stronger when Chinese rural college students have strong psychological resilience. This study deepened the understanding towards Chinese rural college students by investigating how to improve their sense of meaning in life.

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Availability of Data and Materials: Data are available from the corresponding authors upon reasonable request.

Ethics Approval: All procedures involving human participants were conducted in compliance with the ethical standards set by the institutional or national research committee (Ethical Approval No. 20240611.03). Informed consent was obtained from all individual participants included in this study.

Conflicts of Interest: The authors declare no conflicts of interest to report regarding the present study.

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