

# Impact of Easing COVID-19 Restrictions on Fear of COVID-19 and Social Support Among Chinese Students: A Longitudinal Analysis

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**Introduction:** This longitudinal study aims to investigate the relationship between fear of COVID-19, support-seeking behaviors, and perceived social support among Chinese college students during two distinct periods of the COVID-19 pandemic: the period of strict control (time 1) and the period following a relaxation of restrictions (time 2).

**Methods:** A total of 408 Chinese college students participated in this study. Data collection included demographic information, measures of fear of COVID-19, support-seeking behaviors, and perceived social support.

**Results:** Fear of COVID-19 at time 1 showed a significant positive association with fear of COVID-19 at time 2. The relationship between support-seeking behavior at time 1 and fear of COVID-19 at time 2 was significantly mediated through a chain mediation effect of support-seeking behavior at time 1 and perceived social support at time 2.

**Discussion:** This study contributes to the growing body of evidence on the psychological impacts of the COVID-19 pandemic and underscores the significance of social support in mitigating fear of COVID-19. It calls for a re-evaluation of public health policies considering their potential psychological effects and introduces new opportunities for developing psychosocial interventions.

**Keywords:** fear of COVID-19, social support, Chinese students, COVID-19 policy, longitudinal study

## Introduction

The COVID-19 pandemic, which surfaced in December 2019, has left a deep global impact, severely affecting both public health and economic sectors.<sup>1,2</sup> By January 2023, the pandemic had led to nearly 664 million confirmed cases and over seven million fatalities across 223 countries.<sup>3</sup> Despite the widespread distribution of vaccines and the relaxation of control measures in various regions, the pandemic consequences persist on a global scale. In the face of a crisis of this magnitude, effective crisis management is vital to mitigate further public health challenges.<sup>4,5</sup> The Chinese government's implementation of a strict zero-tolerance strategy, in effect until December 2022, played a pivotal role in curbing the virus's spread. However, as the virus became less lethal, the government adjusted its approach, signaling a diminishing public health concern.<sup>6</sup>

The unpredictability brought by the pandemic disrupted the innate human desire for stability, resulting in a surge in mental health issues, including depression, trauma-induced stress, and anxiety.<sup>7,8</sup> Nonetheless, the Chinese government's rigorous policies fostered a sense of stability, distinguishing it from countries like the United States and Italy.<sup>9</sup> However, this prolonged stability might have inadvertently reduced the overall awareness and perceived immediacy of COVID-19 among the Chinese population.<sup>10</sup>

As control measures were eased and a prolonged sense of safety prevailed, mainland China witnessed a renewed sense of apprehension and anxiety regarding COVID-19.<sup>11,12</sup> This heightened concern manifested in a rush for anti-epidemic medications, reduced travel, and a scarcity of medical resources.<sup>13</sup> Prior traumatic events, such as the initial outbreak in Wuhan, may have exacerbated vigilance and stress surrounding COVID-19 for the Chinese populace.<sup>14</sup> Furthermore, the psychological challenges of transitioning from stringent restrictions to a more open society became apparent.<sup>15</sup> Specifically, Chinese college students, a demographic highly attuned to societal shifts and expectations, experienced pronounced effects.<sup>16</sup> Their narratives provide insight into the wide-ranging societal challenges encountered during this transition.

This study investigates the psychological and societal consequences of relaxing COVID-19 measures in China, with a focus on the experiences of Chinese college students. By examining their fear of COVID-19, support-seeking behaviors, and perceptions of social support, we aim to shed light on the broader implications of policy changes during global health emergencies.

## Literature Review

### Fear of COVID-19

Fear, a fundamental adaptive emotion, arises when individuals perceive threats or potential harm.<sup>8,17</sup> The COVID-19 pandemic, with its extensive impact and persistent unpredictability, has triggered this emotion on an unprecedented global scale. Factors contributing to this fear include concerns about personal health, the well-being of loved ones, experiences of social isolation, economic volatility, and uncertainties regarding career prospects. Taken together, these concerns can heighten the risk of mental health disorders and, in some cases, lead to thoughts of suicide.<sup>18</sup>

College students, in particular, are vulnerable to the tumultuous changes brought about by the pandemic. The closure of academic institutions has confined many to their family homes, while necessary social distancing measures have limited their interactions with peers and faculty.<sup>19</sup> Adding to these challenges, the economic consequences of the pandemic have resulted in widespread job losses, leading to significant career-related anxieties among this demographic.<sup>8,20</sup> While navigating this critical phase of life, these students, who are already prone to mental health challenges during major life transitions, are confronted with heightened stressors arising from academic obligations and uncertainty about their professional paths.<sup>21–23</sup>

### Social Support Under the COVID-19 Pandemic

Lazarus and Folkman's seminal stress coping theory<sup>24–26</sup> provides a valuable framework for understanding the psychological impact of the pandemic. This theory emphasizes coping mechanisms as transactional, categorizing them into problem-focused and emotion-focused strategies. The former, which includes resource mobilization and seeking social support, is crucial during sudden crises like disease outbreaks.<sup>27</sup> Existing literature suggests that individuals with strong coping abilities are better at navigating and recovering from stress-inducing events.<sup>28,29</sup> Effective problem-focused coping, when combined with appropriate cognitive and emotional processing, can significantly reduce vulnerabilities to stress-related mental health issues. Leveraging social support as a coping mechanism is considered a problem-focused strategy,<sup>30</sup> and its effectiveness in alleviating stress is well-documented. Furthermore, perceiving social support from colleagues, family, and friends is essential for maintaining emotional stability during times of adversity and tension.<sup>31</sup>

### Fear of COVID-19 and Social Support

The COVID-19 pandemic has given rise to a pervasive atmosphere of fear. Paradoxically, this environment can also strengthen a sense of unity and interdependence among individuals. Shared adversities and objectives, especially in crises, can foster cooperation, altruism, and group cohesion. This idea aligns with a combination of evolutionary models and social psychological perspectives.<sup>32–35</sup>

In China, collective efforts, exemplified by community-wide nucleic acid testing, have showcased the power of working together to maintain low infection rates. The visible successes of these collaborative endeavors have reinforced

individuals' belief in their collective resilience, a concept known as collective self-efficacy.<sup>36,37</sup> Such a united response to a widespread health threat underscores the vital role of societal bonds and mutual support in navigating crises.

Studies have suggested that fear can motivate individuals to engage in collective efforts that enhance the well-being of the community, ranging from following health advisories to participating in mutual aid.<sup>38</sup> Active participation in task-oriented community groups during crises can alleviate feelings of despair and increase optimism.<sup>3,39</sup> However, the relationship between the fear induced by COVID-19 and the perception of social support remains relatively unexplored. While previous research during different health outbreaks offers initial insights,<sup>40</sup> the complex dynamics unique to the COVID-19 pandemic warrant further investigations. Social support, stemming from various sources, whether it's family, peers, or institutions, has the potential to modulate fear responses, positively affecting both psychological and physiological well-being.<sup>41-45</sup>

For the student cohort during the pandemic, the effects of social support remain somewhat unclear. While some studies suggest that social support can alleviate fears related to job security and COVID-19 in specific demographics,<sup>46,47</sup> the unique challenges students face, such as the shift to virtual education, may limit the applicability of these findings. Furthermore, the long-term consequences of social support during pandemic events are yet to be definitively determined. Robust social support has been linked to reductions in depression, anxiety, and overarching psychological distress post-crisis, but its impact on post-traumatic stress manifestations remains uncertain.<sup>48-50</sup>

Given the emergence of COVID-19 variants with varying virulence, like Omicron, the continuous assessment of evolving fear dynamics and associated social response is essential. Amid fluctuating infection patterns and the diverse spectrum of fear experienced by university students, examining the role of perceived social support in mitigating fear becomes crucial, especially through longitudinal research methods. Such an investigative trajectory promises to elucidate the temporal shifts in fear intensity alongside the pandemic's progression and the evolution of policy responses.

## Support Seeking and Perceived Social Support

Support-seeking behavior is a widely recognized coping strategy that individuals frequently employ in response to challenges.<sup>51</sup> This adaptive, problem-focused approach involves actively seeking information, guidance, and emotional reassurance as a means to address and navigate the perceived challenge.<sup>24,52,53</sup> Contemporary research outlines three fundamental phases inherent in support-seeking behavior: (1) Recognizing the problem; (2) Deciding to seek help; and (3) Choosing a source of assistance.<sup>54,55</sup>

Amid the COVID-19, the psychological upheavals induced by the virus—manifested as heightened anxiety, panic episodes, sleep disruptions, and irritability—may enhance support-seeking tendencies. Especially when individuals perceive limited personal coping resources in the face of this unprecedented threat, they are inclined to seek external assistance to alleviate their concerns and refine their coping strategies.

The Protection Motivation Theory (PMT) provides a robust framework for understanding this behavior.<sup>56</sup> PMT elucidates the mechanisms through which individuals interpret and respond to fear-inducing stimuli, such as severe health threats like COVID-19. The theory posits that an individual's assessment of a threat, including its severity and their vulnerability to it, can trigger fear, which subsequently catalyzes tendencies to seek help. Simultaneously, an assessment of coping strategies, which evaluates the available tools and their perceived effectiveness, can influence the inclination to seek assistance. This depends on the individual's belief that such behavior will effectively mitigate the threat and enhance well-being. Recent empirical evidence supports an increase in help-seeking tendencies in regions dealing with the pandemic, reinforcing this aspect of PMT.<sup>57</sup>

Furthermore, when individuals actively engage in support-seeking, they emphasize the importance of social connection and their faith in the reservoir of support within their networks.<sup>58</sup> Such a deliberate quest for support signifies confidence in one's social fabric and enhances the perception of existing social support—a critical indicator of an individual's perceived worth and integration within their social environment, founded on mutual communication and reciprocity.<sup>59-61</sup> Notably, the mere perception of such support often has a more significant impact on mental and physical health improvements than tangible support received. It serves as a protective barrier against psychological challenges (eg, Li et al, 2015; McDowell and Serovich, 2007).<sup>62,63</sup>

## Current Study

Despite the plethora of research on online social interactions and their implications in the digital age, the dynamics of face-to-face interactions, particularly in crisis contexts, have remained relatively underexplored. The COVID-19 pandemic introduced an unprecedented context, impacting both online and offline social behaviors. For instance, although studies have discovered positive correlations between help-seeking behaviors and perceived social support among online communities,<sup>64</sup> it remains unclear whether these findings can be extended to face-to-face interactions during the pandemic. Addressing this gap is essential for comprehending how individuals navigate their social worlds in times of global crises. This study aims to contribute to this body of knowledge by exploring the relationship between fear of COVID-19, support-seeking behaviors, and perceived social support in offline contexts.

Based on the aforementioned rationale, the following hypotheses are proposed (as shown in the conceptual framework in Figure 1):

Hypothesis 1 (H1): Fear of COVID-19 at time 1 will be positively associated with fear of COVID-19 at time 2.

Hypothesis 2 (H2): Support-seeking behavior at time 1 will mediate the relationship between fear of COVID-19 at time 1 and perceived social support at time 2.

Hypothesis 3 (H3): Support-seeking behavior at time 1 will mediate the relationship between fear of COVID-19 at time 1 and fear of COVID-19 at time 2.

Hypothesis 4 (H4): The relationship between support-seeking behavior at time 1 and fear of COVID-19 at time 2 will be mediated through a chain mediation effect of support-seeking behavior at time 1 and perceived social support at time 2.

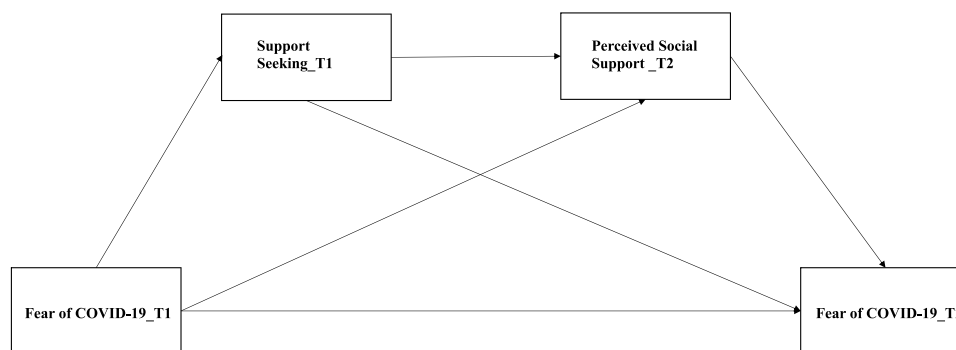
## Method

### Participants and Procedures

To address safety and social distancing requirements during the COVID-19 outbreak period, we conducted a longitudinal study using two-wave online self-administered surveys to collect data for this study. The first wave of data collection took place in November 2022 (Time 1), during a period when the Chinese government implemented strict control measures. The second wave of data collection occurred from the end of December 2022 to January 2023 (Time 2; about two months after Time 1), following the relaxation of control measures in the COVID-19 policy.

We used online posters to disseminate invitations to participate in the study, providing details about the survey link, the study's objectives, confidentiality policies, and contact information for the researchers. Participation in this study was voluntary and anonymous.

The initial criterion for participation in this study was being a currently enrolled undergraduate student in a Chinese university, and consent provided through a consent form. Exclusion criteria involved not being an undergraduate student or not being enrolled in a Chinese university during the specified time frame. All valid participants were undergraduate



**Figure 1** Conceptual model.

**Notes:** T1 = at Time 1; T2 = at Time 2.

students currently studying at Chinese universities. In total, 408 participants (mean age =  $20.67 \pm 5.59$  years), including 141 males (34.6%) and 267 females (65.4%), from five universities in three Chinese cities, took part in the study. The dataset contained no missing entries, as participants were required to complete all survey components before submission. All participants in the research were adults, for whom the requirement for parental informed consent was waived. Informed consent was obtained directly from each participant prior to their participation, ensuring compliance with the Declaration of Helsinki.

## Measures

### Demographic Information

Participants provided information on their age, gender (coded as 0 for male and 1 for female), and region of study.

### Fear of COVID-19

In this study, we employed the Fear of the COVID-19 Scale (FCV-19S)<sup>65</sup> to measure fear of COVID-19. The FCV-19S comprises seven items that assess two factors: physical fear response and fear thinking. Participants rated each item on a five-point scale (1 = disagree; 5 = completely agree), for example: “It makes me uncomfortable to think about coronavirus-19”. Higher mean scores on this scale indicate greater levels of fear of COVID-19. The FCV-19S demonstrated good internal consistency with a Cronbach’s alpha of 0.89.

### Support Seeking

Support seeking was assessed using the eleven items Seeking Social Support of Coping Strategy Indicator (CSI).<sup>66,67</sup> The CSI was rated on a three-point scale (1 = not at all; 3 = a lot), for example: “Sought friends for advice”. Higher mean scores on this scale indicate a greater level of support seeking. The CSI was translated into Chinese by,<sup>68</sup> and showed a Cronbach’s alpha of 0.85.

### Perceived Social Support

Perceived social support was assessed using six items COVID-19 Version Perceived Social Support Questionnaire (F-SozU), developed by<sup>69</sup> and adapted from the Perceived Social Support Questionnaire<sup>70</sup> to measure perceived social support during the COVID-19 pandemic. Participants rated each item on a 5-point scale, ranging from 1 = not at all true to 5 = very true). For example, “If I get sick, I have friends and family who will take care of me”. A higher mean score on this scale indicate a greater level of perceived social support. The F-SozU was validated in Chinese populations by<sup>71</sup> and demonstrated good internal consistency, with a Cronbach’s alpha coefficient of 0.83.

## Statistical Analysis

We performed data analysis using SPSS 27.0 software. Descriptive analyses were conducted to examine the demographic variables. Bivariate correlations among fear of COVID-19, support seeking, and perceived social support were explored using Pearson’s correlation coefficient. We examined the mediating roles of fear of COVID-19 at Time 1 and Time 2 using Model 6 in the SPSS PROCESS macro version 3.5.3.<sup>72</sup> Bootstrap estimates were resampled 5000 times to calculate 95% confidence intervals of the indirect effects. A mediating effect was considered significant at  $p < 0.05$  if the confidence interval did not include zero.

## Results

The current study yielded insights into the relationships among fear of COVID-19, seeking social support, and perceived social support at two different time points.

### Descriptive Statistics and Correlations

As illustrated in Table 1, fear of COVID-19 at time 1 exhibited significant positive correlations with fear of COVID-19 at time 2, perceived social support at time 2, and seeking social support at time 1. Conversely, seeking social support at time 1 showed a negative correlation with fear of COVID-19 at time 2.

**Table 1** Correlations Among Variables

	M	SD	1	2	3	4
1. Fear of COVID-19 Support at Time 1	13.613	3.007	1			
2. Support Seeking Support at Time 1	2.018	0.506	0.279***	1		
3. Perceived Social Support at Time 2	3.294	0.660	0.849***	0.521***	1	
4. Fear of COVID-19 Support at Time 2	15.900	2.414	0.324***	-0.112*	0.167**	1

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

The study evidenced that fear of COVID-19 at time 1 was positively correlated with fear of COVID-19 at time 2 ( $r = 0.324, p < 0.01$ ), as well as with perceived social support at time 2 ( $r = 0.849, p < 0.01$ ) and seeking social support at time 1 ( $r = 0.279, p < 0.01$ ). Seeking social support at time 1 was negatively correlated with fear of COVID-19 at time 2 ( $r = -0.112, p < 0.01$ ), while perceived social support at time 2 was positively correlated with fear of COVID-19 at time 2 ( $r = 0.167, p < 0.01$ ). Moreover, the correlation between seeking social support at time 1 and perceived social support at time 2 was in the expected direction ( $r = 0.521, p < 0.01$ ).

### Chain Mediation Model Analysis

Table 2 presents the results of the chain mediation model analysis, which examined the mediating effect of seeking social support at time 1 and perceived social support at time 2 in the relationship between fear of COVID-19 at time 1 and fear of COVID-19 at time 2. The findings revealed several key relationships. Fear of COVID-19 at time 1 was a significant positive predictor of fear of COVID-19 at time 2 ( $\beta = 0.23, p < 0.001$ ), supporting *H1*. Fear of COVID-19 at time 1 emerged as a significant predictor of its level at time 2. Meanwhile, both seeking social support at time 1 ( $\beta = -0.15, p < 0.05$ ) and perceived social support at time 2 ( $\beta = -0.24, p < 0.05$ ) were significant negative predictors of fear of COVID-19 at time 2. And the direct path from fear of COVID-19 at time 1 to fear of COVID-19 at time 2 ( $\beta = 0.56, p < 0.001$ ) was significant. Additionally, the direct effect of fear of COVID-19 at time 1 on seeking social support at time 1 ( $\beta = 0.28, p < 0.001$ ) and perceived social support at time 2 ( $\beta = 0.76, p < 0.001$ ) was significant. In line with *H2* and *H3*, both seeking social support at time 1 and perceived social support at time 2 were significant negative predictors of fear of COVID-19 at time 2.

**Table 2** Regression Analysis of Relationship Between Fear of COVID-19 at Time 1 and Fear of COVID-19 at Time 2 with Mediation Analyses

Regression Equation Result Variable	Predictor Variable	Fitting Index			Significance		
		R	R2	F	Coeff	Standardized Coeff	t
SS at Time 1		0.279	0.078	34.181	1.379		12.33***
	FOC at Time 1				0.047	0.28	5.847***
PSS at Time 2		0.899	0.808	852.401	0.202		2.584*
	FOC at Time 1				0.168	0.76	33.655***
FOC at Time 2	SS at Time 1				0.402	0.31	13.593***
	FOC at Time 1	0.400	0.160	25.575	13.978		23.170***
	SS at Time 1				0.454	0.56	6.108***
FOC at Time 2	PSS at Time 2				-0.695	-0.15	-2.544*
	PSS at Time 2				-0.869	-0.24	-2.276*
	FOC at Time 1	0.324	0.105	47.474	12.364		23.5277***
	FOC at Time 1				0.260	0.32	6.8901***

Notes: \* $p < 0.05$ ; \*\*\* $p < 0.001$ .

Abbreviations: SS, support seeking; PSS, perceived social support; FOC, fear of COVID-19.



**Table 3** Fear of COVID-19 at Time 1 and Fear of COVID-19 at Time 2 in the Mediation Effect Analysis

	Indirect Effects	Boot SE	Boot LLCI	Boot ULCI
Total	-0.2417	0.0815	-0.4034	-0.0848
Indirect effect 1	-0.0406	0.0775	-0.0788	-0.0094
Indirect effect 2	-0.1807	0.0775	-0.3337	-0.0312
Indirect effect 3	-0.0203	0.0099	-0.0420	-0.0034

**Notes:** Indirect effect 1 (H2): Fear of COVID-19 at Time 1→Seeking Social Support at Time 1→Fear Of COVID-19 at Time 2; Indirect effect 2 (H3): Fear of COVID-19 at Time 1→Perceived Social Support at Time 2→Fear Of COVID-19 at Time 2; Indirect effect 3 (H4): Fear of COVID-19 at Time 1→Seeking Social Support at Time 1→Perceived Social Support at Time 2→Fear Of COVID-19 at Time 2.

## Mediation Effects

The results presented in Table 3 demonstrate a significant cascading mediating effect between fear of COVID-19 at time 1 and fear of COVID-19 at time 2. Specifically, seeking social support at time 1 and perceived social support at time 2 acted as significant mediators between fear of COVID-19 at time 1 and fear of COVID-19 at time 2 ( $\beta = -0.24$ ,  $SE = 0.08$ , 95%  $CI = -0.4034$  to  $-0.0848$ ). Furthermore, all predicted indirect paths in the mediation model were significant: (1) Path 1 (H2): fear of COVID-19 at time 1→ seeking social support at time 1→ fear of COVID-19 at time 2 ( $\beta = -0.04$ ,  $SE = 0.08$ , 95%  $CI = -0.0788$  to  $-0.0094$ ); (2) path 2 (H3): fear of COVID-19 at time 1 → perceived social support at time 2 → fear of COVID-19 at time 2 ( $\beta = -0.18$ ,  $SE = 0.08$ , 95%  $CI = -0.3337$  to  $-0.0312$ ). (3) path 3 (H4): fear of COVID-19 at time 1 → seeking social support at time 1 → perceived social support at time 2 → fear of COVID-19 at time 2 ( $\beta = -0.02$ ,  $SE = 0.01$ , 95%  $CI = -0.0420$  to  $-0.0034$ ). Since the 95% confidence intervals for all of these paths did not include a value of 0, the results confirmed that H4 was supported. Specifically, seeking social support at time 1 and perceived social support at time 2 significantly mediated the relationship between fear levels of COVID-19 at the two-time points.

## Discussion

This longitudinal study, grounded in the framework of social support theory,<sup>73</sup> aimed to elucidate the complex interplay between social support and the dynamic fear associated with COVID-19 among college students. Our findings robustly validated our hypotheses, shedding light on a significant increase in fear levels following the government's shift toward more lenient pandemic control measures. Importantly, the results emphasize the critical role of social support and support-seeking behavior in mitigating the apprehension and anxiety induced by COVID-19.

The observed escalation in fear levels related to COVID-19 after the relaxation of preventive measures aligns with previous research. Prior studies have suggested that fear and anxiety levels fluctuate over the course of an epidemic and are significantly influenced by public health interventions.<sup>74</sup> For example, during the Severe Acute Respiratory Syndrome (SARS) outbreak in Taiwan, anxiety levels peaked during the initial phase but declined as containment strategies were implemented.<sup>75</sup> This study expands on this understanding, highlighting how shifts in public health directives and policy changes can influence fear and anxiety levels. These insights hold significant implications for future policy development.<sup>76</sup>

## Role of Social Support in Mitigating Fear of COVID-19

Social support theory posits that strong social relationships and networks act as protective buffers, shielding individuals from the adverse consequences of stressors, including fear, anxiety, and depression.<sup>73</sup> This investigation elucidated the multifaceted ways in which social support can mitigate fears associated with COVID-19, encompassing emotional, informational, tangible, and appraisal dimensions of support.<sup>77-79</sup>

The fear surrounding COVID-19 characterized as a multidimensional construct, encompasses both the physiological and psychological aspects of apprehension and anxiety related to virus.<sup>80</sup> This fear can motivate individuals to seek social support from their connections. Grounded in the concept of collective efficacy, this act of seeking support can enhance

individuals' abilities to protect themselves and their communities from the virus.<sup>81,82</sup> This theoretical perspective provides a compelling rationale for the observed positive correlation between the fear of COVID-19 and perceived social support.

## Perceived Social Support and Collective Efficacy

Empirical studies consistently indicate a positive correlation between fear of COVID-19 and perceived social support. This suggests that individuals experiencing heightened fear tend to perceive stronger affiliations and support from their social circles.<sup>57,83</sup> This correlation may be attributed to an increased awareness of vulnerability and potential hazards associated with the pandemic, compelling individuals to seek and perceive higher levels of social support to navigate prevailing uncertainties.<sup>71</sup> Furthermore, research has suggested that perceived social support can serve as a protective buffer, attenuating the adverse psychological consequences of fear and anxiety.<sup>84</sup>

A pronounced sense of collective efficacy, rooted in robust social networks and mutual trust, also influences the intensity of individuals' fear responses. For instance, individuals residing in regions characterized by abundant social capital exhibited lower fear levels concerning COVID-19.<sup>85</sup> These observations suggest that strengthening social ties and support networks can play a crucial role in reducing fear levels and fostering a stronger sense of collective efficacy. Consequently, collective efficacy and perceived social support are interconnected, serving as valuable assets in reducing fear and anxiety, thereby enhancing individual and communal resilience.<sup>86</sup>

## Support Seeking: Opportunities and Challenges

During the COVID-19 pandemic, support-seeking has emerged as a vital mechanism for nurturing resilience. Such support can manifest in various forms, including interpersonal, professional, and community-based support.<sup>87</sup> However, inherent challenges, such as societal stigmatization and limited access to support, need acknowledgment and remediation.<sup>88</sup> Throughout the pandemic, community and professional support paradigms have risen as indispensable pillars, correlating with increased resilience and better mental health outcomes in crisis situations.<sup>49,89,90</sup>

## Theoretical and Practical Implications

This study's findings offer insights of both theoretical and practical significance. The research contributes to our understanding of post-COVID-19 mental well-being by providing a framework for interpreting the fluctuations in fear and anxiety witnessed throughout the pandemic, emphasizing the interplay of uncertainty and social support.<sup>91</sup>

Practically, the results underscore the importance of evaluating the psychological impact of public health interventions. Policymakers must recognize the potential consequences of policy shifts on the fluctuations of fear and anxiety related to COVID-19 to prevent a resurgence of infection surges.<sup>92</sup> In clinical practice, it is crucial to acknowledge the potential psychological burden of the pandemic. Initiatives promoting social support can serve as powerful tools in mitigating associated fear and anxiety.<sup>76</sup>

## Policy and Public Health Interventions

The fluctuations in fear levels in response to changes in public health measures align with prior research suggesting that public sentiment, specifically fear and anxiety, can be significantly influenced by the stringency of public health interventions.<sup>93</sup> Policy shifts, especially those affecting public health, often have a profound psychological impact on the population. The nature and immediacy of these policies can either alleviate or exacerbate existing anxieties. Chinese experience during the SARS outbreak manifested a similar trajectory where initial heightened anxiety tapered with stringent control measures.<sup>94,95</sup> This study emphasizes the need for policymakers to be aware of these psychological consequences when designing and implementing public health strategies. A comprehensive approach that combines epidemiological strategies with psychological insights may lead to more effective and well-received public health interventions.



## Limitations and Future Directions

While this study provides valuable insights into the relationship between social support and the fear of COVID-19 among college students, several limitations should be acknowledged. Firstly, the longitudinal design, while offering temporal depth, may be vulnerable to participant attrition, potentially affecting the results or reducing statistical power.<sup>96</sup> Additionally, relying on self-reported data may introduce social desirability or recall biases. The use of an online survey platform, though convenient, might inadvertently exclude individuals with limited internet access or technological proficiency, resulting in a selection bias. Moreover, the relatively small sample size, limited to college students from a singular Chinese city, may impact the study's statistical robustness and generalizability of its findings.<sup>97</sup> Future research should aim to diversify participant demographics across various locations, employ mixed-method approaches for a more nuanced understanding, increase sample sizes, and explore alternative data collection techniques. These refinements will contribute to a more comprehensive understanding of the complex relationship between social support and the psychological repercussions of global health disruptions.

## Conclusion

In summary, this longitudinal study investigated the fear of COVID-19 among Chinese college students during two distinct periods of the pandemic—while strict control measures were in place and after their relaxation. The findings revealed a significant increase in fear levels following the government's policy changes, underscoring the potential psychological impact of public health measures. Additionally, the study emphasized the crucial role of support-seeking behaviors and perceived social support in alleviating the fear of COVID-19. This study is significant because it underscores the value of collective efficacy and social support systems in reducing crisis-related fear, which can subsequently enhance individual and community resilience during health crises. By providing empirical evidence of the association between social support and fear of COVID-19, it opens new avenues for the development of psychosocial interventions and calls for a re-evaluation of public health policies to consider their potential psychological impacts.

## Data Sharing Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

## Ethics Approval

This study has been approved by the Survey and Behavioural Research Ethics Committee of the Qingdao University.

## Disclosure

The authors declare that they have no conflicts of interest in this work.

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