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How Does Strength Use Relate to Posttraumatic Growth in Health Care Workers During the COVID-19 Pandemic? The Mediating Role of Self-Efficacy and Optimism

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Objectives: Research on the use of strengths has suggested that it can promote individuals' psychological health and well-being. This study aimed to examine the relationship between strength use and posttraumatic growth (PTG) in the context of COVID-19 pandemic among health care workers, as well as the mediating role of psychological capital in this relationship. ***Method:*** A total of 740 health care workers completed the Strengths Use Scale, the Positive Psychological Capital Scale, and the Posttraumatic Growth Inventory. Descriptive, correlational, and multiple mediation analyses were performed to analyze the data. ***Results:*** Participants of 55.9% reported experiencing significant PTG during the COVID-19 pandemic. The study found a significant and positive correlation between strength use, psychological capital, and PTG. In addition, the study found that self-efficacy and optimism, but not hope and resilience, mediated the linkage between strength use and PTG linked to the COVID-19 pandemic. The results also indicated that self-efficacy and optimism had equal importance in the strength use—PTG link. ***Conclusions:*** The study concludes that strength use is positively related to PTG in the context of the COVID-19 pandemic through the mediating roles of self-efficacy and optimism.

Clinical Impact Statement
The study suggests that investing in employees' strength use is promising, and health care workers should be encouraged to use their strengths proactively. Managers should also pay attention to the development of employees' psychological capital, particularly in terms of self-efficacy and optimism, both of which facilitate the posttraumatic growth of health care workers.

Keywords: strength use, psychological capital, posttraumatic growth, self-efficacy, optimism

In recent times, researchers have examined the psychological impact of the COVID-19 pandemic on health care professionals. Studies have indicated that health care workers have experienced negative outcomes such as anxiety, depression, and posttraumatic stress disorder (Batra et al., 2020; Salari et al., 2020; Spoorthy et al., 2020). However, some individuals may actually experience positive changes after experiencing a major life crisis. These positive changes, known as posttraumatic growth (PTG), include an increased appreciation of life, greater personal strengths, improved relationships, new possibilities, and spiritual growth (Tedeschi & Calhoun, 2004). Previous research has shown that PTG can have tremendous benefits for individuals, including improved functioning, increased resilience (Finstad et al., 2021), relief from burnout (Hamama-Raz et al., 2021), and alleviation of psychological distress (Pietrzak et al., 2021). Therefore, research into the factors that influence PTG is crucial for health care workers.

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Chengzhi Bai contributed equally to methodology. Jie Ma served in a supporting role for investigation and writing–original draft. Baoyu Bai served as lead for project administration and supervision and served in a supporting role for writing–original draft. Shuzhen Zhu served as lead for investigation and supervision and contributed equally to project administration and writing–review and editing.

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In the past few years, the growing area of positive psychology has shed light on the importance of emphasizing our personal strengths (Miglianico et al., 2020). Empirical studies have consistently shown that using our strengths, which are defined as the positive qualities and characteristics that enable us to reach our greatest potential (Linley, 2008), can yield numerous benefits for our overall well-being and health (Bakker & van Woerkom, 2018; Miglianico et al., 2020). However, to our knowledge, no studies have directly investigated the relationship between strength use and PTG. Therefore, it is worth investigating whether the use of strengths could foster PTG related to the COVID-19 pandemic among health care workers and the underlying mediating mechanisms.

Strength Use and PTG

Our hypothesis is that strength use may contribute to individuals' PTG. Strength use refers to the extent to which individuals use their strengths in different contexts (Govindji & Linley, 2007). Theoretically, character strengths theory suggests that using one's strengths can lead to positive psychological states such as feelings of competence and vitality (Peterson & Seligman, 2004). These positive states, in turn, may contribute to PTG. Furthermore, although no study has directly examined the relationship between strength use and PTG, several indirect lines of evidences have suggested that strength use may be positively related to PTG. For example, previous research has indicated that strength use could lead to subjective well-being and resilience (Bakker & van Woerkom, 2018; Miglianico et al., 2020), both of which have been confirmed to be crucial predictors of PTG (O'Donovan & Burke, 2022; Finstad et al., 2021). Therefore, we hypothesized that greater strength use will be associated with higher levels of PTG linked to the COVID-19 pandemic in health care workers.

Strength Use, Psychological Capital, and PTG

A critical question is how strength use relates to PTG. We speculated that the use of strengths is positively related to PTG, through the mediating role of psychological capital. Psychological capital is a stable and positive psychological state that influences an individual's self-perception and developmental behavior as they grow. It includes four dimensions: self-efficacy, hope, resilience, and optimism, all of which can be developed and invested in by individuals to gain a competitive advantage (Youssef-Morgan & Luthans, 2015). Self-efficacy refers to an individual's assessment of his or her ability to succeed in a task. Hope represents an individual's belief in working toward and achieving a goal. Resilience is a person's confidence and willingness to take action. Optimism reflects an individual's positive outlook on the present and future.

From a theoretical perspective, the revised job demands-resources theory states that using our strengths can help us build personal resources, such as psychological capital (Bakker & van Woerkom, 2018; Stander & Mostert, 2013). These resources can then motivate us to seek out job resources, which in turn help us better cope with job demands and increase our chances of receiving positive feedback and opportunities for growth (Xanthopoulou et al., 2009), and therefore are more likely to grow from trauma.

Our predictions are further supported by several empirical studies. Prior studies have provided evidence that the use of strengths is a reliable indicator of psychological capital (Bai & Bai, 2023; Meyers et al., 2015). In fact, interventions that focus on leveraging strengths have also been proven to significantly improve individuals' psychological capital (Corbu et al., 2021; Katajisto et al., 2021). Furthermore, longitudinal studies have suggested that hope and resilience, two components of psychological capital, and may serve as predictors of PTG (Rzeszutek et al., 2017; Yola, 2011).

Therefore, in line with the job demands-resources theory, we speculated that the use of strengths would be positively associated with health workers' PTG through the mediating role of psychological capital.

The Present Study

The current study sought to examine the linkage of strength use with PTG related to the COVID-19 pandemic among Chinese health care workers, and to explore the mediating role of psychological capital in this relationship. Specifically, we examined the mediating roles of self-efficacy, hope, resilience, and optimism in this relationship. This study extends previous research in several ways. First, it is the first study to examine whether the use of strengths predicts PTG among Chinese health care workers in the context of the COVID-19 pandemic. Second, based on the job demands-resources theory, we examine the mediating role of psychological capital in the relationship between strength use and PTG. Finally, we build a multiple mediation model to determine which types of psychological capital play the most significant mediating role.

Based on the theoretical framework and empirical evidence reviewed, we proposed the following hypotheses for this study:

Hypothesis 1: The use of strengths will positively predict PTG related to the COVID-19 pandemic among Chinese health care workers.

Hypothesis 2: Self-efficacy, hope, resilience, and optimism will mediate the correlation between strength use and PTG linked to the COVID-19 pandemic in Chinese health care workers.

Method

Participants and Procedure

The study was conducted in two separate phases. The first phase, conducted in August 2020 in the major cities of Hubei, Central China, involved 367 workers from the Centers for Disease Control and Prevention (CDC). Data for this phase were collected concurrently with a previously published study that examined the immediate effects of "lockdown" measures after they were relaxed in the region (Bai & Bai, 2023). It is important to note that while this data collection occurred simultaneously, the data sets were tailored to the unique objectives of each study. In this research, we specifically repurposed the "strength use" and "psychological capital" variables due to their pronounced pertinence to the unprecedented challenges faced by CDC workers in epidemic management.

The second phase, which is entirely new, was conducted in Xinjiang in February 2022, when the epidemic was under regular control. A total of 442 nurses participated in this phase. This phase aimed to provide a contrasting perspective from a different health care setting and under different epidemic conditions.

Finally, a total of 69 questionnaires were excluded from the analysis because they were incomplete or showed signs of hasty or careless answers. We identified these questionnaires by observing patterns of repetitive responses or inconsistencies within the responses. This left 740 participants for data analysis. Of these participants, 590 were female, representing 79.7% of the total, while 150 were male, representing 20.3% of the total. The distribution of participants by age group was as follows: 199 participants (26.9%) were aged 20–30 years, 252 participants (34.1%) were aged 31–40 years, 210 participants (28.4%) were aged 41–50 years, and 79 participants (10.7%) were aged 51 years or older.

Measures

Strength Use

The Chinese version of the Strength Use Scale (Govindji & Linley, 2007) was used to assess participants' level of strength use. The scale consists of 14 items, and participants were asked to rate their level of agreement using a 7-point Likert-type scale, with 1 representing *strongly disagree* and 7 representing *strongly agree*. The mean score of all items was used to represent the level of strength use. Prior research has shown good construct validity of the scale in Chinese culture (Bai & Bai, 2023; Bai et al., 2021). The internal consistency of the scale in the present study was high, with a Cronbach's α coefficient of .976.

Psychological Capital

The Chinese version of the Positive Psychological Capital Questionnaire (K. Zhang et al., 2010) was used to measure participants' levels of psychological capital. The scale contains four dimensions: self-efficacy, hope, resilience, and optimism. Participants rated their agreement on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), with higher scores indicating higher levels of psychological capital. The total scale had high internal consistency (Cronbach's $\alpha = .919$), and the four dimensions also had good reliability (self-efficacy = .793, hope = .836, resilience = .717, and optimism = .922).

PTG Related to the COVID-19 Pandemic

The Posttraumatic Growth Inventory (PTGI; Tedeschi et al., 2017) was used in this cross-sectional study to assess positive changes in participants after experiencing the COVID-19 pandemic. Participants were instructed with the following prompt: "Given your experience with the COVID-19 pandemic, rate the degree to which you feel you have changed in the following ways (0 = *I did not experience this change as a result of the COVID-19 pandemic*, 5 = *I experienced this change to a very great degree as a result of the COVID-19 pandemic*)." The scale is made up of 25 items across five domains: relationships with others, personal strengths, new possibilities, appreciation of life, and spiritual and existential change. Participants used a 6-point Likert scale to rate the degree to which they felt changed, with 0 indicating *not changed at all* and 5 indicating *changed very much*. The internal consistency of the scale in the current study was high, with a Cronbach's α of .969.

Data Analysis

We conducted descriptive and bivariate correlation analysis using SPSS 25.0, and employed Model 4 of the PROCESS macro V3.00 in SPSS 25.0 to explore the independent mediating role of self-efficacy, resilience, optimism, and hope in the relationship between strength use and PTG related to the COVID-19 pandemic. Additionally, we used the PROCESS macro to compare the mediating effect of self-efficacy, resilience, optimism, and hope. This involved randomly sampling 5,000 bootstraps from the initial data and generating 5,000 pathways. A mediating effect was considered significant if its 95% confidence interval (CI) did not overlap with zero, as recommended by Preacher and Hayes (2008).

Ethical Statement

This study was approved by the Ethics Committee of the Department of Psychology, School of Philosophy, Wuhan University (2020071601). Prior to participation, all participants were fully informed of the purpose, benefits, potential harms, and use of their data. Informed consent was obtained from each participant, confirming that they fully understood and agreed to the terms and conditions of the study.

Results

Descriptive Statistics and Correlational Analyses of the Variables

Overall, the mean PTG scale score for health care workers in the COVID-19 pandemic context was 75.47 ($SD = 21.80$). Specifically, 55.9% ($n = 407$) of participants reported experiencing significant PTG, defined as a total score of ≥75 on the PTGI scale.

The results of the descriptive statistics and correlational analyses for the total variables and subdomains of PTG related to the COVID-19 pandemic are presented in Table 1. Overall, the variables were significantly and positively correlated with each other. Specifically, the use of strengths was not only significantly and positively associated with psychological capital (self-efficacy, hope, resilience, and optimism), but also with PTG and its subdomains related to the COVID-19 pandemic ($p < .001$). Moreover, self-efficacy, hope, resilience, and optimism were also significantly correlated with both the total PTG score and its subdomains ($p < .001$).

Regression Analyses

First, we assessed the presence of multicollinearity in the regression analysis. The variance inflation factor statistics for all predictor variables were less than 4.15, indicating that they were not highly correlated with the other variables included in the analysis. Specifically, the variance inflation factor statistic for strength use was 1.65, for self-efficacy was 2.55, for hope was 4.05, for resilience was 1.82, and for optimism was 4.15.

For the regression analysis, we used the total PTG score as the dependent variable. The predictors included demographic variables such as age and gender, the independent variable strength use, and the mediator variables self-efficacy, hope, resilience, and optimism. The results showed that strength use, gender, self-efficacy, and optimism were significant predictors of PTG among health care professionals (see Table 2).

Table 1
Descriptive Statistics and Correlations Among the Key Variables

Variable	*M* (*SD*)	Correlation											
		1	2	3	4	5	6	7	8	9	10	11	12
1. Strength use	4.54 (1.10)	—											
2. Self-efficacy	4.35 (0.85)	.53**	—										
3. Hope	4.71 (1.08)	.57**	.68**	—									
4. Resilience	4.31 (0.94)	.38**	.64**	.56**	—								
5. Optimism	4.93 (0.69)	.60**	.69**	.85**	.52**	—							
6. PTG total	75.47 (21.80)	.63**	.60**	.60**	.41**	.63**	—						
7. PTG_AL	3.29 (0.92)	.50**	.45**	.53**	.36**	.57**	.84**	.—					
8. PTG_PS	3.22 (0.92)	.56**	.54**	.60**	.44**	.63**	.91**	.78**	—				
9. PTG_NP	2.83 (0.99)	.61**	.54**	.53**	.36**	.56**	.93**	.74**	.80	—			
10. PTG_RO	2.99 (0.91)	.58**	.49**	.54**	.37**	.58**	.94**	.74**	.80**	.86**	—		
11. PTG_PS	2.93 (0.99)	.59**	.50**	.56**	.37**	.59**	.93**	.70**	.82**	.83**	.84**	—	
12. Gender	1.20 (0.42)	−.02	.07	.06	.10**	−.05	−.08*	−.04	−.08*	−.10**	−.07	−.08*	—
13. Age	3.23 (0.96)	.34	.10**	.09*	.11**	.11**	.03	.03	.03	.00	−.01	.07	.14*

Note. Age 3 represents participants aged between 30 and 40 years. PTG = posttraumatic growth; AL = appreciation of life; PS = personal strengths; NP = new possibilities; RO = relationship to others; SEC = spiritual and existential change.
* $p < .05$. ** $p < .01$.

Our findings indicated that health care professionals who had higher levels of strength use, self-efficacy, and optimism tended to report higher levels of PTG. Interestingly, gender also played a significant role, with females reporting higher levels of PTG compared to males ($p = .013$). However, age, hope, and resilience did not have a significant impact on PTG in our sample.

When we examined the different dimensions of PTG, we found specific patterns. For the dimensions of "personal strength" and "new possibilities," almost all predictors were significant, except for age. For the dimensions of "relating to others," "new possibilities," and "spiritual and existential changes," age, strength use, self-efficacy, and optimism emerged as significant predictors. However, when considering the "appreciation of life" dimension, only strength use and optimism were significant predictors. This suggests that there is a unique interplay of variables that influence the appreciation of life compared to other dimensions of PTG.

Mediation Analyses

Next, we employed a multiple mediation model to explore the mediating roles of self-efficacy, hope, resilience, and optimism in the relationship between strength use and PTG linked to the COVID-19 pandemic, while controlling for demographic factors such as age and gender. Our analysis revealed that strength use accounted for 39.70% of the observed variance in PTG, while the overall model was responsible for explaining 51.20% of the variance.

Table 2
Predictors of PTG Related to the COVID-19 Pandemic

Variables	*B*	*SE*	β	*p*	95% CI
Constant	0.912	0.171		.000	[0.576, 1.249]
Gender	−0.143	0.058	−.066	.013	[−0.256, −0.030]
Age	−0.024	0.024	−.026	.320	[−0.070, 0.023]
Strength use	0.279	0.026	.352	.000	[0.227, 0.330]
Self-efficacy	0.124	0.042	.121	.003	[0.041, 0.207]
Hope	0.078	0.050	.081	.119	[−0.020, 0.175]
Resilience	0.042	0.044	.033	.349	[−0.044, 0.129]
Optimism	0.203	0.043	.251	.000	[0.120, 0.287]

Note. PTG = posttraumatic growth.

Direct and Indirect Effects

When we included the four psychological capital dimensions as mediators, the direct effect of strength use on PTG linked to the COVID-19 pandemic was reduced from 0.495($p < .001$) to 0.279 ($p < .001$). This equates to a mediating effect of 0.216 (total effect-direct effect: 0.495–0.279). Approximately 43.64% of the total effect was mediated by the psychological capital dimensions. This suggests that psychological capital partially mediates the association between strength use and PTG. Details of these effects are presented in Table 3.

Bootstrap Analysis

We employed a bootstrap estimation method, utilizing 5,000 bootstrap samples, to rigorously assess the significance of the mediating effects in our study. Our results indicated that the 95% CIs for

Table 3
Standardized Indirect Effects and 95% Confidence Intervals

Model pathways	Estimated	95% CI	
		Lower	Upper
Direct effect			
Strength use → PTG	0.279[a]	0.227	0.330
Indirect effect			
Strength use → PTG	0.216[a]	0.151	0.287
Strength use → self-efficacy → PTG	0.051[a]	0.014	0.093
Strength use → optimism → PTG	0.119[a]	0.055	0.193
Strength use → hope → PTG	0.036	−0.018	0.089
Strength use → resilience → PTG	0.010	−0.018	0.036
IndEff (self-efficacy) minus IndEff (optimism)	−0.068	−0.151	0.007

Note. "Estimated" values represent the specific sizes of these standardized indirect effects. IndEff = indirect effect; PTG = posttraumatic growth.
[a] Empirical 95% confidence interval does not overlap with zero.

both self-efficacy (95% CI [0.011, 0.093]) and optimism (95% CI [0.054, 0.191]) did not include zero, thereby confirming their significant roles as mediators in the association between strength use and PTG related to the COVID-19 pandemic. In contrast, the 95% CIs for hope (95% CI [−0.017, 0.091]) and resilience (95% CI [−0.019, 0.036]) did cross zero, suggesting that they did not significantly mediate this relationship. Comprehensive details of the bootstrap analysis can be found in Table 3.

Comparative Analysis of Mediators

To rigorously compare the significance of the mediating effects of self-efficacy and optimism, we utilized a "pairwise of indirect effects" test within the Process macro. Specifically, this test compares the difference between the two indirect effects by subtracting them and examining whether the resulting CI includes zero. We calculated the difference between the indirect effects of self-efficacy and optimism, and generated a 95% CI for this difference. Our analysis revealed that the 95% CI for this difference included zero (95% CI [−0.187, 0.006]), indicating that there was no statistically significant difference between the mediating effects of self-efficacy and optimism. This suggests that both self-efficacy and optimism played equally important roles in mediating the relationship between strength use and PTG. These comparative analyses are illustrated in Figure 1 and detailed in Table 3.

Discussion

The purpose of this study was to examine whether health care workers' strength use could predict their PTG related to the COVID-19 pandemic and to explore the mediating roles of self-efficacy, hope, resilience, and optimism. The results showed that the use of strengths could be positively related to PTG in the context of the COVID-19 pandemic through the mediating effects of self-efficacy and optimism, but not hope or resilience.

Findings from this study showed that health care professionals commonly experience PTG related to the COVID-19 pandemic, which is consistent with findings from previous surveys that focused on PTG among health care workers during the same crisis (Feingold et al., 2022; N. Zhang et al., 2023). Several factors may explain this phenomenon. Firstly, health care workers are typically highly dedicated to their work and have a strong sense of purpose, which allows them to remain motivated and focused despite challenging circumstances (Balch et al., 2009). Additionally, exposure to stressful and traumatic events may actually enhance their resilience over time, enabling them to adapt to new challenges and grow from the experience (Heath et al., 2020). Furthermore, previous research has suggested that health care workers receive significant social support during the COVID-19 pandemic, which is a critical factor contributing to their PTG linked to the COVID-19 pandemic (Alnazly et al., 2021).

The results of this study revealed a positive association between strength use and PTG among health care workers dealing with the COVID-19 pandemic. This extends our understanding of the beneficial outcomes of strength use, which has previously been mainly associated with individual well-being and performance (Bakker & van Woerkom, 2018; Miglianico et al., 2020). Furthermore, we found that this positive relationship held true not only for the overall PTG score but also for its various subdomains. This nuanced finding highlights the multifaceted effects of strength use on different aspects of PTG, which is consistent with our correlational analyses presented in Table 1. Our findings are consistent with character strengths theory (Peterson & Seligman, 2004) and support the idea that using one's strengths can lead to flourishing, increased energy, and improved overall well-being (Harzer & Ruch, 2013). Thus, the implications of our study extend beyond well-being and performance, highlighting the potential role of strength use in promoting PTG and its subdomains. This suggests the importance of cultivating and using one's strengths in various aspects of life, especially in challenging times such as the current pandemic.

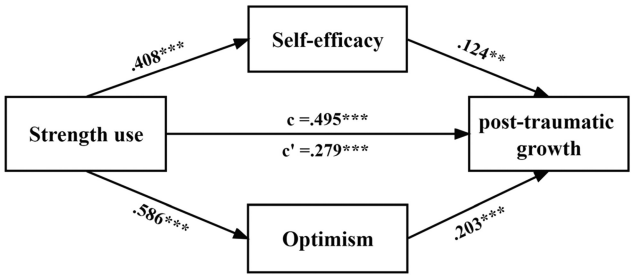
Furthermore, our study expands the antecedent variables of PTG by identifying the use of strengths as a significant predictor. This has important practical implications, as both managers and health care workers themselves can encourage the use of strengths to achieve PTG during or in the aftermath of challenging experiences. Our findings suggest that interventions or programs aimed at promoting PTG in health care workers could focus on the use of strengths as a key component.

To our knowledge, we are among the first to investigate the psychological mechanisms underlying the association between strength use and PTG during the COVID-19 pandemic. Results from our study indicated that strength use can positively predict PTG relates to the COVID-19 pandemic through the mediating effect of psychological capital. Specifically, we found that people who use their strengths are more likely to possess greater levels of self-efficacy and optimism, which further enhances their PTG. Our study supports the positive activity model (Lyubomirsky & Layous, 2013), which suggests that the use of personal strengths can result in positive outcomes via positive behaviors. Additionally, we have expanded this model by demonstrating that the variables mediating the association between strength use and PTG are linked to the COVID-19 outbreak are optimism and self-efficacy, as opposed to resilience and hope. Another finding indicated that the influence of self-efficacy as a mediator is not statistically different from that of optimism. This implies that both self-efficacy and optimism play equally significant roles in linking the use of strengths to PTG among health care workers. These findings highlight the importance of developing psychological capital as a means to promote psychological well-being and growth in the workplace.

Interestingly, this finding contradicts the results of a recent study by Bai and Bai (2023). They found that the use of strengths was negatively related to employee burnout through the mediating role of

Figure 1

The Mediating Effects of Self-Efficacy and Optimism Between Strength Use and Posttraumatic Growth



** $p < .01$. *** $p < .001$.

resilience and hope, but not self-efficacy and optimism. A possible explanation for this is that PTG associated with the COVID-19 pandemic and burnout is distinct phenomena that require different approaches and factors for successful management. In the context of PTG during the COVID-19 pandemic, self-efficacy and optimism may play a more important role than resilience and hope because they can help individuals find meaning and purpose in their traumatic experiences (Kwak et al., 2021). On the other hand, resilience and hope may be more important factors in coping with burnout, as they can help individuals overcome burnout and regain a sense of control and balance in their lives (Gustafsson et al., 2010; McCain et al., 2018).

These findings are important and should be considered by policymakers. Different psychological capital must be valued in order to achieve different goals. As these two studies show, to reduce negative outcomes such as burnout, we should prioritize increasing resilience and hope. In contrast, to increase positive outcomes such as PTG, we should focus on increasing self-efficacy and optimism. Future research should continue to test this hypothesis. Furthermore, because psychological capital can be developed through targeted interventions (Luthans et al., 2007), we can promote PTG by increasing employees' levels of psychological capital, particularly self-efficacy, and optimism, in addition to encouraging them to use their strengths.

Limitations and Future Directions

While this study provides important insights, there are several limitations that should be acknowledged.

Current Limitations

Firstly, the use of a cross-sectional design, while theoretically sound, precludes the establishment of causal relationships. Secondly, the self-report measures used to assess strength use, psychological capital, and PTG linked to the COVID-19 pandemic are subjective and may introduce bias. Thirdly, it is important to note that all participants in this study were Chinese health care workers. Therefore, the generalizability of the findings may be limited to this population and cultural context. Lastly, this study did not collect data on the number of the years participants had worked in the health care field, which has been shown in prior research to influence the psychological effects of traumatic events such as the COVID-19 pandemic. The absence of this variable may limit the generalizability and interpretation of our findings.

Future Research Directions

First, given the partial mediating effects of self-efficacy and optimism, future research should explore the underlying mechanisms that contribute to these observed roles. Different cultural or occupational settings may provide new perspectives on these relationships. Second, our study raises the question of how interventions designed to enhance self-efficacy and optimism might affect PTG. Thus, future studies could explore the development and effectiveness of such interventions among health care workers, particularly in the context of current or future pandemics. Third, given the noncausal nature of our study, it would be beneficial for future research to utilize longitudinal or experimental designs to establish causality between strength use and PTG. Finally, because we were unable to account for the number of years participants have worked in the health care field, future research should include this variable, along with other potential moderating variables, to provide a more comprehensive understanding of PTG among health care workers.

Implications for Practice

Our study provides potentially valuable insights for health care workers and their managers. However, it's crucial to clarify that these findings are based on observed associations rather than established causal relationships. In the context of the COVID-19 pandemic, our data suggest that exploring the use of individual strengths might be beneficial for health care workers in coping with traumatic events.

First, during the acute phase of the pandemic, rapid identification of health care workers' primary strengths via brief online tools could be beneficial. As the pandemic continues, organizations should consider fostering a culture centered around individual strengths, optimizing performance through team exercises and managerial training. After the pandemic, sustained attention to the use of strengths could be maintained through performance evaluations and postcrisis debriefs.

Second, prior research suggested that a supportive work environment can positively contribute to employee well-being and performance (Meyers et al., 2019). Considering the potential of using strengths in the workplace, organizations might consider the following steps (Dubreuil et al., 2016): identifying individual strengths through validated scales, reflecting on past successes that incorporate these strengths, and planning for a future that incorporates the use of these strengths.

Furthermore, our study indicated that psychological capital may act as a mediator between strength use and PTG. Managers could explore various ways to cultivate employees' psychological capital, such as goal-setting exercises, anticipation of challenges and solutions, resource integration, feedback mechanisms, and positive brainstorming (Dello Russo & Stoykova, 2015).

Conclusions

Our study provides evidence that the use of personal strengths is significantly and positively associated with PTG, especially in response to traumatic events such as the COVID-19 pandemic. Additionally, our findings suggest that self-efficacy and optimism, rather than hope or resilience, play a mediating role in the relationship between strength use and PTG. To promote PTG among health care workers, organizations can create a culture that emphasizes the use of personal strengths and supports employees' psychological capital.

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