



The Effect of Familism Emotions on Post-Traumatic Growth Among the Elderly in China: The Mediating Roles of Taoist Personality and Sense of Community

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Purpose: Post-traumatic growth is a significant social issue in the management of active aging in elderly people. This study investigates the influence of familism emotions on post-traumatic growth (PTG) of the elderly, and the mediating role of Taoist personality and sense of community (SOC) therein, to provide a scientific basis for the development of positive aging in the elderly.

Methods: A cross-sectional study was conducted in several communities of Hubei Province in China. A total of 338 elderly people were investigated with the Familism Emotion Scale, PTG Scale, Taoist Personality Scale and SOC Scale. SPSS 23.0 was used to derive descriptive statistics and conduct a common method bias test, Pearson correlation analysis, and multiple stepwise regression analysis. Mplus 7.3 was used for structural equation modeling to test the significance of parallel mediation effects on the data.

Results: The results show that: (1) Familism emotions, Taoist personality and SOC are positively correlated with PTG; (2) Familism emotions, Taoist personality and SOC can all positively predict PTG in the elderly; (3) Both Taoist personality and SOC partially mediated the link between familism emotions and PTG in the elderly.

Conclusion: In the context of particularly constraining societal events such as COVID-19, it is necessary to pay careful attention to the impact of external environmental influences upon the elderly, such as family and community, and to encourage elderly people to cultivate a more Taoist personality. The formation of a Taoist personality offers a promising new focus for research in elderly healthcare.

Keywords: familism emotions, post-traumatic growth, Taoist personality, sense of community, elderly

Introduction

The COVID-19 pandemic not only posed a threat to people's physical health but also their mental health to varying degrees. During the pandemic, survey data showed that people aged 30–79 were more prone to COVID-19, with the mortality rate being highest for people aged 80 and over.¹ The mortality rate was especially high for patients with comorbidities. Other studies of the elderly during lockdown found that this burden was further increased by negative news and misinformation, resulting in higher levels of negative emotions such as anxiety and depression.^{2,3} These outcomes of COVID-19 have had a lasting impact on the mental health of the elderly. At present, China has returned to more normal levels of epidemic prevention and control, so relatively little attention is being paid to the sustained impact of COVID-19 in elderly healthcare. It is therefore critical to examine the long-term impact of COVID-19 on the elderly and explore ways in which they might be better protected in the future.

Post-traumatic growth (PTG) refers to positive changes in individual self-cognition, life philosophy and interpersonal relationships.⁴ PTG, as an important factor influencing older people's ability to actively cope with ageing, is closely linked to their traumatic experiences.⁵ During the COVID-19 pandemic, a large number of older single children died, and many older adults experienced child loss, forcing them to become "families without children". Being older, Shidu parents in these families have a much higher prevalence of anxiety and depression and are more likely to suffer from post-traumatic stress disorder and other mental illnesses.^{6,7} Notably, Sun found that it changed people's self-perception, including their ideas about personal growth and their awareness of the importance of health.⁸ Positive concepts such as these may benefit from closer familial and

social relationships, where the adults concerned may experience increased social support and listening opportunities.⁹ Thus, PTG makes it possible for individuals to reassess their life goals and make positive changes after experiencing traumatic events. However, previous studies of trauma have mainly focused on its negative effects and less on possible positive outcomes. Here, then, we use the context of the COVID-19 pandemic to explore its possible positive effects in terms of PTG amongst the elderly.

Familism Emotions and Post-Traumatic Growth

Familism is a collectivist tendency that puts the interests of the family at its heart. This includes family values, familial emotions and the associated behavioral tendencies.¹⁰ According to family ecosystem theory,¹¹ the development of an individual is influenced by the interplay between family members and the family environment, with the behavior of one member affecting behavioral, cognitive, and affective changes among the remaining members. This can also lead to reflections about their behavior, cognition, and emotions. In particular, the theory suggests that the emotional connection between children and their parents and parents and their children may affect their behavioral and cognitive changes. Some researchers believe that in collectivism-oriented cultural contexts, strong familism-related values make individuals more emotionally dependent on their family members when receiving social support.¹² In times of crisis or emergency, close ties between family members are typically enhanced. Empirical research suggests that increases in supportive familism values among individuals and families are associated with decreases in the symptoms of depression. Thus, adolescents' mental health benefits from beliefs about family unity and emotional closeness, particularly if they feel that their individual behavior should be consistent with family expectations.¹³ The research also suggests that high levels of consistent familism in the family environment help to promote emotional support and increase individuals' pro-social behavior.^{14,15} These studies provide strong evidence of an association between familism emotions and posttraumatic growth. However, some scholars have argued that familism can be a detrimental factor in posttraumatic growth. Specifically, when groups of individuals are in a highly unified emotional state, they tend to be weakly connected to the outside world and are prone to falling into a negative state should some unfortunate event befall a family member. For example, family caregivers with a strong sense of filial piety are more likely to exhibit depression and anxiety.¹⁶ Studies have also found that Latino adolescents who have attempted suicide exhibit familism by making material or emotional sacrifices for their family members.¹⁷ Zhu et al¹⁸ suggest that Confucian familism may play a dual role by both motivating and placing emphasis upon Chinese people's emotional labor and well-being. For older adults, high levels of familism can promote the positive effects of autobiographical memory, which may then underpin the hopes of those who have lost their children. However, compared to their peers with children, bereaved parents are more likely to experience physical and psychological problems, such as an increased prevalence of depression, higher risk of death, and accelerated cognitive decline.^{19,20} In summary, although an absence of familism can have a persistent negative impact on the health of older adults, interpersonal connections through familism emotions is more likely to have a more positive than negative effect.

H1 Strong familism emotions promote the development of PTG amongst the elderly.

The Mediating Role of Taoist Personality

Taoism is an important part of Chinese traditional culture. The core of Taoism is "Tao", and its fundamental characteristic is "nature and truth". Ancient Chinese society was an agricultural civilization with farming as its mainstay. The key to the continuation of a farming civilization lies in the harmony between man and nature and man and man. The natural truth between man and nature and man and man forms the core of Taoism. A Taoist personality has four traits: knowledge; emotion; will; and action. This is consistent with the theory of human nature advocated by Taoism, with roots in Taoist ideology and culture.²¹ Thus, "nature and truth" sit at the heart of a Taoist personality and the pursuit of human nature, permeating all aspects of human psychology and behavior. Through knowledge, one can approach things from a paradoxical point of view; through emotion, one focuses on one's inner self and is at peace; through will, one can act with perseverance and flexibility; and through one's treatment of others and oneself, one knows how to be humble and can strive to be free from the mundane and return to the natural world. Overall, the theoretical model of how Taoist personality is constructed is consistent with the basic framework of Western philosophers' understanding of human beings, but it is different from traditional Western schools

of personality. Taoist personality embodies the characteristics of traditional Chinese culture and brings together the ideological features of connection, change, and contradiction.

Positive psychologists hold that the Taoist concept of happiness advocates understanding and adapting to Tao, with an emphasis on the improvement of the quality of people's inner spiritual lives.²² Taoism is rich in wisdom about life and death, and can alleviate the fear and anxiety of death to a certain extent. It has been found that the optimistic attitude to life advocated by Taoism can offset elderly people's negative feelings about aging, disease, and death, and improve their satisfaction with life.²³ This raises the possibility of Taoist personality affecting the level of PTG amongst the elderly. In addition, people's personalities can directly affect their individual mental health in family environments.²⁴ Meta-analyses have shown that helping people with borderline personality disorder to understand some of the behaviors of their relatives can improve their relationships and the family atmosphere.²⁵ Our next hypothesis is therefore:

H2 A Taoist personality will play a partial mediating role in the influence of familism emotions on PTG amongst the elderly.

The Mediating Role of Sense of Community

Community is one of the most important environmental factors that affect the quality of life and mental health of the elderly. A sense of community (SOC) is defined as identification of an interdependent relationship with others when providing them with help and being willing to maintain this interdependent relationship, thereby generating feelings of belonging to a definite stable structure.²⁶ Many studies have shown that a good SOC can encourage elderly people to actively participate in more social activities, thereby obtaining more social support and improving their physical and mental health.²⁷ In ecosystem theory, it is argued that individuals are affected by the various complex environments around them during their growth, including family, school, and community.^{28,29} Over time, individual ecosystems are therefore subject to change, which in turn further affects the environment. Studies have shown that the mental health of the elderly is affected by family structure and social support,³⁰ and familism emotions play a particularly important part in this.³¹ Another hypothesis is therefore:

H3 SOC plays a partial mediating role in the influence of familism emotions on PTG amongst the elderly.

The Mediating Role of Taoist Personality and Sense of Community

Ecosystem theory also holds that individuals are affected not only by factors within the system but also by people's dynamic interaction with the external environment.¹¹ Previous studies have shown that the mental health of the elderly in the face of negative events is affected by internal factors such as their physical condition, the way they try to cope, and the nature of their cognition.³² However, it is also affected by external factors, such as social inclusion/exclusion, organizational identification, and interpersonal trust.³³ In the process of the development of an individual's PTG, familism emotions may therefore be influenced by both internal factors (eg, the individual's personality) and external factors (eg, their SOC). This leads to our final hypothesis:

H4 Familism emotions can influence PTG amongst the elderly through the dual mediating roles of their Taoist personality and SOC.

In summary, this study examines the impact of familism on PTG in older adults. It also explores the role of Taoist personality and SOC in this context, using family ecosystem theory as a framework. Both internal and external influences on the individual are considered, with the goal of revealing the factors that influence PTG among older adults and the impact upon this of the dynamic interaction between family and community. The study also explores how PTG might be effectively cultivated, thereby providing guidance for positive aging development.

Materials and Methods

Participants and Procedures

The study employed Cluster random sampling to ensure a representative sample that could be easily collected. Data were collected from 342 elderly people in three communities and two senior universities in Wuhan, China. Following the

experimenter's instructions, the volunteers spent about 45 minutes completing a series of surveys. The participant inclusion criteria were as follows: residing in urban Wuhan; over 50 years of age and retired; no serious hearing, vision, or speech disorders; no history of serious mental disorders (schizophrenia, anxiety, obsessive-compulsive disorder, etc.); and basic reading and comprehension skills. It is worth noting that some data were collected online through Questionnaire Star (<http://www.wjx.cn>), a Chinese online questionnaire platform. Participants completed a separate informed consent form to confirm their willingness to participate in the study.

A total of 338 questionnaires were collected, resulting in a valid recovery rate of 98.83%. Of the participants, 171 (50.6%) were male and 167 (49.4%) were female. Of the total sample, 211 (62.4%) were aged 50–59 years old, 100 (29.6%) were aged 60–69 years old, and 27 (8.0%) were aged 70 years old or above. In terms of education, 11 (3.3%) had an elementary school education or below, 48 (14.2%) had a junior high school education, while 94 (27.8%) and 93 (27.5%) had a bachelor's degree or above, respectively (see Table 1). Normally, the sample size for a questionnaire should be 5 to 10 times the total number of questions, and there were 42 questions in this study. Therefore, all research criteria were met.^{34,35} The study was approved by the Medical Ethics Committee of Wuhan Sports University (No. 2023024) and was conducted in accordance with the ethical standards set forth in the Declaration of Helsinki.

Measurements

Basic Information

Self-designed questionnaires were used to collect basic demographic information about the study subjects, including their gender, age, marital status, educational level, and living conditions.

Table 1 Socio Demographic Characteristics of the Participants (N = 338)

Variables	Total
Gender, n(%)	
Male	171(50.6)
Female	167(49.4)
Age, n(%)	
50–54 years	112(33.1)
55–59 years	99(29.3)
60–64 years	50(14.8)
65–69 years	50(14.8)
Over 70 years	27(8)
Marital status, n(%)	
Married	302(89.3)
Divorced	15(4.4)
Remarried	3(0.9)
Widowed	18(5.3)
Educational level, n(%)	
Primary school or below	11(3.3)
Junior high school	48(14.2)
Senior high school or technical secondary school	94(27.8)
Junior college	92(27.2)
Undergraduate or above	93(27.5)
Living conditions, n(%)	
Living with spouse and children	136(40.2)
Living with children	39(11.5)
Living with spouse	137(40.5)
Living alone	26(7.7)

Familism Emotion Scale

A Familism Emotion Scale developed by Zhang and Jia³⁶ was used to assess the family relationships amongst the elderly participants. The scale consisted of six items, including their sense of family unity (eg, “You feel very close to your family”), belonging (eg, “You feel like you belong to your family”), responsibility (eg, “You feel very responsible for your family”), care (eg, “You’re very concerned about the well-being of your family”), security (eg, “Your family gives you a great sense of security”), and honor (eg, “You are very proud to be part of your family”). A four-point Likert scoring method was adopted where: 1 = almost completely in disagreement; 4 = almost completely in agreement. The higher the score, the stronger the individual’s familism emotions or feelings. The fit metrics for the model were as follows: $\chi^2/\text{df} = 3.23$; RMSEA = 0.07; CFI = 0.95; TLI = 0.93; and SRMR = 0.06. The 90% confidence interval for the RMSEA was [0.04, 0.07], which indicates a good fit. In this study, Cronbach’s alpha coefficient was 0.85.

SOC Scale

The SOC Scale developed by Townley and Kloos³⁷ was used to assess the level of SOC amongst the elderly. It consisted of 12 items, with four dimensions, namely: mutual concern (eg, “In many cases, people in the community are able to take care of each other and help each other out”); social connection (eg, “I can recognize most of the people in the neighborhood”); community value (eg, “Living in this community means a lot to me”); and place attachment (eg, “This community makes me feel at home”). Here, a five-point Likert scoring system was adopted (1 = disagree; 5 = strongly agree). The higher the score, the stronger the individual’s SOC. The model had a good fit, where $\chi^2/\text{df} = 2.11$, RMSEA = 0.06, CFI = 0.93, TLI = 0.90, and SRMR = 0.06. The 90% confidence interval for the RMSEA was [0.03, 0.07]. Here, Cronbach’s alpha coefficient was 0.91.

Taoist Personality Scale

A Taoist Personality Scale developed by Tu and Guo³⁸ was used to assess the Taoist personality of the participants. The scale had 17 items, across four dimensions: simplicity and detachment (eg, “I prefer simplicity to luxury”); nature (eg, “I’m honest with myself about everything”); inaction (eg, “Sometimes, inaction is better than action”); and world outlook (eg, “I’ll accept the reality of whatever I’ll be subjected to”). Again, a five-point Likert score was used (1 = disagree, 5 = strongly agree) and the higher the score, the stronger the leaning towards a Taoist personality. The fit indices were as follows: $\chi^2/\text{df} = 1.91$, RMSEA = 0.05, CFI = 0.97, TLI = 0.95, and SRMR = 0.04, with a 90% confidence interval for the RMSEA of [0.02, 0.06]. Here, Cronbach’s alpha coefficient was 0.92.

PTG Scale

The Chinese version of the PTG Scale revised by Tedeschi and Calhoun⁴ was used to assess the participant’s PTG. This scale consisted of 25 items, with five dimensions: appreciation for life (eg, “I can appreciate each day more”); personal strength (eg, “Sometimes, inaction is better than action”); openness to new possibilities (eg, “I try to change things”); relationship with others (eg, “I feel close to others”); and spirit and survival-related changes (eg, “I have a better understanding of spiritual things”). This time, a six-point Likert score was used (0 = not at all; 5 = definitely). The higher the score, the higher the level of PTG. This model fitted the data well. The metrics were: $\chi^2/\text{df} = 2.11$; RMSEA = 0.05; CFI = 0.96; TLI = 0.94; and SRMR = 0.05. The 90% confidence interval for the RMSEA was [0.03, 0.07]. In this case, Cronbach’s alpha coefficient was 0.96.

Data Analysis

SPSS 23.0 was used to undertake a descriptive analysis, Pearson correlations analysis, and multiple stepwise regression analysis. Considering the complex relationships in this research, which require more sophisticated multivariate data analysis methods,³⁹ structural equation modeling (SEM) was used. A structural equation-based model was established using Mplus 7.3 for path analysis to test the mediating role of Taoist personality and SOC between familism emotions and PTG. Sequential tests and bootstrapping were used and, if the 95% confidence interval did not contain 0, it meant that there was a mediating effect. The fit metrics used here were: $1 < \chi^2/\text{df} < 3$; RMSEA < 0.08; CFI > 0.9; TLI > 0.9; and SRMR < 0.06.

Results

Common Method Bias Test

Harman's single-factor test was used to undertake an exploratory factor analysis across all the original questions for each master variable. The results showed that there were 8 common factors with an eigenvalue greater than 1, with the interpretation rate (24.25%) of the first common factor being below the critical value of 40%. The study therefore had no significant common method bias.⁴⁰ To reduce the impact of any collinearity, the items for the PTG, familism emotions, Taoist personality, and SOC were centralized.

Correlation Between PTG and Familism Emotions, Taoist Personality, and SOC

Correlation of the Variables

As shown in Table 2, there was a significant positive correlation between each of the variables and PTG. Familism emotions were also positively correlated with a Taoist personality and SOC. The Taoist personality results were positively correlated with the SOC. These results provided preliminary support for our hypotheses, so the other hypotheses were also tested.

PTG Regression Analysis

The effect of familism emotions on PTG was investigated first, after controlling for age, gender, educational level and living conditions. The results showed that familism emotions can significantly positively predict PTG amongst the elderly ($\beta = 0.47, p < 0.001$). The Taoist personality and SOC results were then tested together, and it was found that both a Taoist personality and SOC can significantly positively predict PTG amongst the elderly ($\beta = 0.42, p < 0.001$; $\beta = 0.30, p < 0.001$). The results of the study therefore support hypothesis 1 (see Table 3).

Table 2 Descriptive Data and Pearson Correlation Results

	<i>M</i> ± <i>SD</i>	1	2	3	4
1.PTG	3.65 ± 0.77	1	–	–	–
2.Familism emotions	3.53 ± 0.46	0.47***	1	–	–
3.Taoist personality	4.01 ± 0.56	0.61***	0.44***	1	–
4.SOC	3.79 ± 0.66	0.65***	0.38***	0.56***	1

Note: *** $p < 0.001$.

Abbreviations: M, mean; SD, standard deviation; PTG, posttraumatic growth; SOC, sense of community.

Table 3 Demographics-Based Regression Analysis

Independent Variable	Model 1		Model 2		Model 3	
	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>
Sex	–0.02	–0.37	–0.02	–0.32	–0.02	–0.42
Age	–0.02	–0.29	–0.04	–0.83	–0.05	–1.21
Educational level	0.06	1.05	0.03	0.56	0.04	1.04
Living conditions	0.02	0.33	0.06	1.29	0.02	0.48
Familism emotions			0.47	9.65***	0.17	4.05***
Taoist personality					0.30	6.22***
SOC					0.42	9.02***
R^2	0.01		0.22		0.54	
<i>F</i>	0.45		19.09***		55.08***	

Notes: *** $p < 0.001$.

Abbreviation: SOC, sense of community.

Table 4 Research Hypothesis Model Path Analysis

Paths	β	SE	95% CI	
			Lower	Upper
Total effect	0.63	0.04	0.53	0.7
Direct effect Familism emotions→PTG	0.19	0.06	0.05	0.3
Indirect effects Familism emotions→Taoist personality→PTG	0.21	0.05	0.11	0.31
Familism emotions→SOC→PTG	0.23	0.05	0.14	0.34
CI	0.02	0.04	-0.14	0.29

Notes: CI was the difference between Familism emotions→Taoist personality→PTG and Familism emotions→SOC→PTG.

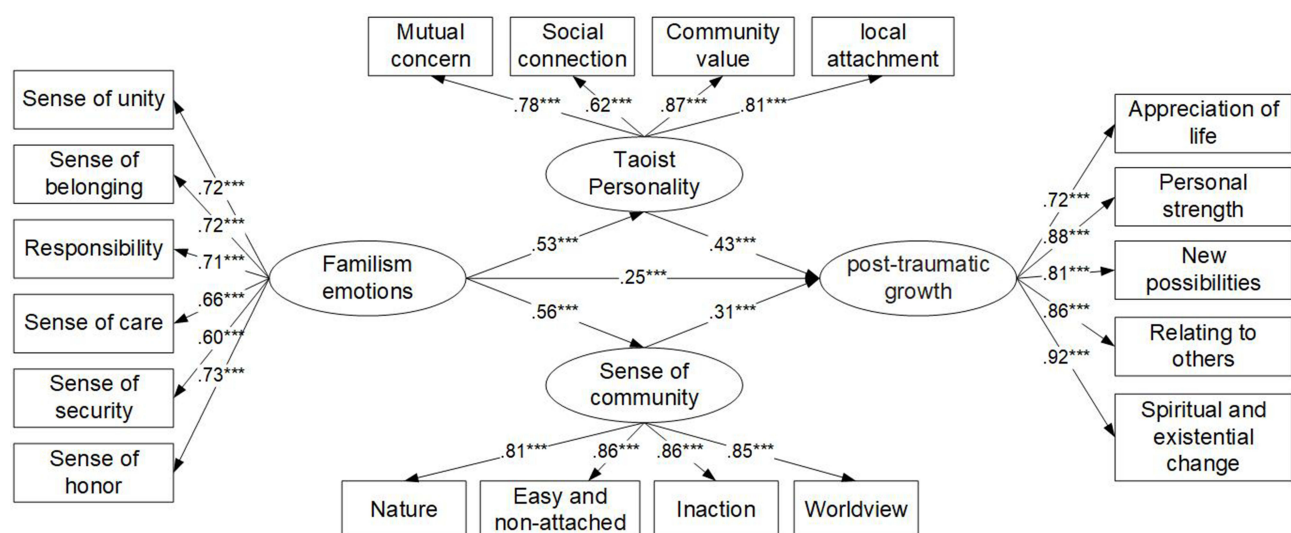
Abbreviations: PTG, posttraumatic growth; SOC, sense of community.

Influence of Familism Emotions on PTG: The Mediating Effects of a Taoist Personality and SOC

Based on the above findings, a mediation model was established using Taoist personality and SOC as the mediating variables. Familism emotions were used as an independent variable and the PTG was treated as a dependent variable. The model proved to have a good fit index ($\chi^2/df = 3.67$, RMSEA = 0.08, 90% CI = [0.08, 0.09], GFI = 0.91, CFI = 0.90, SRMR = 0.08), suggesting that further analysis could be conducted using the structural equation model.⁴¹

As shown in Table 4 and Figure 1, hypotheses 2 and 3 were supported by the findings and the direct effect of familism emotions on PTG was significant, with a Taoist personality and SOC playing a partial mediating role in their influence. The ratio of the indirect effect, 1, generated along the pathway 1 was 0.21 (95% CI = [0.12, 0.31]), which accounts for 33.3% of the total effect. The ratio of the indirect effect, 2, generated along the pathway 2 was 0.23 (95% CI = [0.14, 0.34]), which accounts for 36.5% of the total effect.

The two indirect effects were then tested for differences. The results showed that the Bootstrapped 95% CI of the difference between indirect effect 1 and indirect effect 2 contained 0 (95% CI = [-0.14, 0.29]). Overall, the indirect effect of an SOC was stronger than that of a Taoist personality. Hypothesis 4 was therefore proved.

**Figure 1** The multiple mediation model.

Notes: Full model primary path coefficients are standardized. N=338, *** $p < 0.001$.

Discussion

Effects of Variables on PTG

Regression analyses revealed that demographic variables such as gender, age, literacy level, and residency were not significant predictors of post-traumatic growth in older adults, suggesting that the negative impact of COVID-19 on older adults was widespread and pervasive. This is consistent with the findings of previous studies.⁴² Willey et al suggest that differences in ethnicity and socioeconomic status for rates of PTG among older adults during the COVID-19 pandemic reflect religious and positively reconfigured coping strategies, and thus may not be related to age and gender.⁴³ The Model 2 results indicated that familism positively predicted PTG after controlling for demographic variables. It is believed that emotional support, emotion-focused coping, and problem-focused coping can help PTG in bereaved families, especially for older family members.⁴⁴ The results of the study are therefore consistent with this. In Model 3, Taoist personality, and a sense of community significantly and positively predicted PTG, with an improved prediction of 32%. Zhao argues that community, as a form of place attachment, provides residents with the resources and space to meet their activity needs and establish emotional connections with their neighbors. This, in turn, improves the positivity of their emotional feelings and life satisfaction.⁴⁵ Meanwhile, at a micro level, family emotion as a core source of social support for the elderly gives them a safe and solid foundation, making it easier to align with the Taoist law of natural inaction.³⁶ This also validates the ideas underpinning ecosystem theory.

The Influence of Familism Emotions on PTG Amongst the Elderly

In this study, it was found that familism emotions are positively correlated with PTG and that they can positively predict PTG amongst the elderly, which is consistent with previous study results.^{44,46} This proved Hypothesis 1. Generally, the results indicate that PTG amongst elderly people who had experienced the COVID-19 lockdown was affected by familism emotions. This underscores the suggestion that family relationships play an important role in elderly people's experience of traumatic events. Faced with the negative nature of the news about the epidemic, the elderly inevitably had an increased psychological burden. When they were able to obtain enough family support and companionship from their children, this generated a strong sense of family belonging, love, and security, making their psychological state sounder because they felt immersed in a wealth of emotional care. When women had lost a spouse or partner, they showed more appreciation for life despite the numerous resulting stresses.⁴⁷ Song et al⁴⁸ have similarly found that the spouses of cancer patients have a positive impact on their PTG. This suggests that the PTG of elderly people is affected not only by their children or grandchildren but also by their spouses or partners. So, when familism is internalized, the related emotions can play a protective role when confronted with a negative emotional state.⁴⁹ This further affirms the importance of familism emotions for PTG amongst the elderly.

The Mediating Effects of Taoist Personality and SOC

The results showed that familism emotions can directly influence PTG amongst the elderly, with a Taoist personality having an indirect influence by playing a partial mediating role, which verifies Hypothesis 2. This is basically consistent with previous study results^{23,50} where it has been noted that elderly people's mental health is affected jointly by family factors and personality traits. In our study, individuals reporting high levels of familism-related emotions displayed a relatively strong connection with their family members. From the perspective of the "flexibility" dimension of Taoist personality, when elderly people with a Taoist personality have a strong connection with deceased relatives, this sense of connection does not end at death. Instead, they gradually adapt to the changes in their external environment and adapt their outlook upon life.⁵¹ Alongside this, elderly people with high levels of familism emotions and a Taoist personality are likely to be more eager to protect and act to resist any arising threats to their lives and the lives of their families. Ontologically-speaking, elderly people with a Taoist personality can get rid of unrealistic fears of the unknown and anxiety about death, conform to nature and recover some sense of there being a meaning and value to life. Familism emotions can therefore provide the internal conditions necessary to the cultivation of a Taoist personality, as well as being a primary influence upon PTG.

The structural equation model of the influence of familism emotions on PTG amongst the elderly also made use of SOC as a mediating variable. Here, the results showed that SOC can also have an indirect influence on PTG by playing

a partial mediating role in the influence of familism emotions. This verifies Hypothesis 3 and is again consistent with previous study results,^{52,53} where it was found that family care affects the mental health of the elderly and that elderly people who actively participate in community activities gain a sense of organizational belonging, which contributes to their positive growth. Lai et al⁵⁴ also found that high levels of social participation are related to social support from family and friends and SOC. So, individuals with high levels of familism emotions are also likely to have a greater SOC, resulting in them participating in more social activities. After retirement, the elderly are prone to loneliness, due to their separation from organized groups. When they actively participate in a variety of community activities, such as square dancing, playing chess and recitals, this helps them to establish a new interpersonal network,²² integrate into the collective, and obtain a stronger sense of organizational identification. This makes it easier for them to continue to carry out physical activities and obtain additional social support. To sum up, elderly people with high levels of familism emotions are likely to get more social support as a result of their close interpersonal relationships. Even if they have experienced trauma, they can expect to receive care from their community, which makes up for other emotional losses, thereby helping them to regain some sense of their being a meaning to life and a reason to exist.

The structural equation model also made it possible to examine the mediating roles played by Taoist personality and SOC together. Here, the results showed that familism emotions significantly positively predict a Taoist personality, SOC, and PTG. A Taoist personality and SOC partially mediate the influence of familism emotions on PTG amongst the elderly. This verifies Hypothesis 4. The pathway 1 explained 33.3% of the variation of the PTG amongst the participants. The pathway 2 explained 36.5% of the variation. This indicates that the influence of familism emotions on PTG amongst the elderly is particularly strongly affected by an SOC. This is consistent with the findings of Lai, Li, Lee and Dong,⁵⁴ where it was established that neighborhood cohesion has a stronger relationship to social participation than other environmental or individual factors. This may be because the elderly tend to spend more of their life after retirement with their local neighbors than their children, so the community plays a particularly important protective role in their daily lives. It is believed in environmental gerontology that elderly people with lower internal capabilities are more dependent on their external environment. A highly consistent SOC improves the social support received by the elderly, better motivating the development of PTG.

Limitations and Prospects

Although this study has deepened our understanding of the relationship between familism emotions and post-traumatic growth, there are still some limitations. Firstly, the study lacks longitudinal analysis of the sample. Future research can conduct longitudinal analysis of the sample to validate the results. Secondly, the distribution of age groups in the sample was uneven (fewer older people were aged 70 years or over). However, age was used as a covariate to avoid any confounding effects.

Despite some limitations, the present study has important implications in the field. First, this study developed a parallel mediating model to explore the relationship between familism emotions and post-traumatic growth in older adults, contributing to an understanding of how family environment influences positive growth in older adults. Secondly, this study is informative in terms of intra-individual personality and community environment to promote positive development in older people. Therefore, focusing on the Taoist personality and capturing the impact of the dynamic interaction of both family and community is a viable approach to fostering post-traumatic growth in older adults.

Conclusion

In summary, this study explored the impact of familism emotions on post-traumatic growth in older adults through the validation of a parallel mediation model, which showed that (1) The presence of familism emotions significantly positively predicts PTG amongst the elderly. (2) A Taoist personality plays a partial mediating role in the influence of familism emotions on PTG amongst the elderly. (3) SOC plays a partial mediating role in the influence of familism emotions on PTG amongst the elderly. (4) Familism emotions play a parallel mediating role in PTG amongst the elderly according to the presence of a Taoist personality and SOC.

Overall, this study emphasized the impact of concerns about COVID-19 on the mental health of Chinese older adults but also identified the potential for positive growth. It is important not only to acknowledge the value of traditional

Chinese culture and recognize the dynamic relationship between both family and community, but also to cultivate their capacity for post-traumatic growth and the development of positive aging in the elderly.

Data Sharing Statement

The data of the present study supporting the conclusions will be made available on request by the first or corresponding authors.

Ethics Statement

This study was conducted in accordance with the Declaration of Helsinki. This study was approved by the Medical Ethics Committee of Wuhan Sports University (No. 2023024). Informed consent was obtained from all participants included in this study.

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Disclosure

The authors report no conflicts of interest in this work.

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