



SAPIENZA
UNIVERSITÀ EDITRICE

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 © Author(s)
E-ISSN 2724-2943
ISSN 2723-973X

Psychology Hub (2024)
XLI, Special Issue, 73-82

Article info

Submitted: 29 January 2024
Accepted: 02 May 2024
DOI: 10.13133/2724-2943/18405

Managing COVID-19 Induced Distress in Italy: The Role of Perceived Spiritual Support

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Abstract

This research wanted to explore if perceived spiritual support (PSS) moderates the link between COVID-19 concerns and psychological distress. Two surveys were conducted in Italy in 2021, involving 218 participants in the first study and 230 participants in the second. Participants completed questionnaires assessing COVID-19 concerns, perceived economic difficulties, perceived spiritual support, and psychological distress. Multiple regression models were performed in both studies to test our hypotheses. In both studies the results demonstrated that the association between COVID-19 concerns and distress was more pronounced among individuals with low PSS compared to those with high PSS. These findings suggest that relying on spiritual support has assisted individuals in managing fear and mitigating distress during the pandemic.

Key words: Concerns during the Covid-19 pandemic, psychological distress, perceived spiritual support

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Introduction

The COVID-19 pandemic has presented global challenges across socioeconomic, political, and public health domains. Numerous studies worldwide have emerged to address its adverse effects (e.g., Keng et al., 2022; Malliet et al., 2020; Rawtani et al., 2021; Zhang et al., 2020). The pandemic has resulted in widespread psychological distress, feelings of uncertainty, and significant life concerns (e.g., fear of infection, worry for family and friends, and anticipated negative outcomes related to changes in family life, education, and business) (Del-Valle et al., 2022; Glowacz & Schmits, 2020; Kruglanski et al., 2021; Wang et al., 2022). Given these detrimental consequences, it is crucial to investigate psychological factors that could mitigate such negative impacts.

We explored the potential contributions of psychological sciences through the lenses of positive psychology and social psychology concepts. Positive psychology, as a modern approach, has aimed to illuminate the optimal aspects of adaptive human responses to catastrophic events (Peterson & Seligman, 2004; Seligman & Csikszentmihalyi, 2000). Within this framework, spirituality is recognized as one of the 24 character strengths (Peterson & Seligman, 2004).

Scholars have argued that spiritual beliefs can nurture hope and serve as a source of strength during challenging circumstances (Ai et al., 2005; Ai et al., 2013; Ai et al., 2014; Ai et al., 2021; Ano & Vasconcelles, 2005; Chatters et al., 2008; Pargament et al., 2005; Peterson & Seligman, 2004; Rosmarin & Leidl, 2020; Sinding Bentzen, 2019). However, the role of spirituality factors during the COVID-19 pandemic has been relatively under-investigated in psychological research. To address this gap, we present two studies conducted in Italy during the COVID-19 pandemic, a period when Italy was one of the EU countries most severely affected by the crisis (see also Kasic et al., 2023; Kasic & Ai, in press). In both studies we explored whether perceived spiritual support (PSS; Ai et al., 2005) moderated the relationships between COVID-19 induced concerns and psychological distress. We hypothesized that belief in a spiritual protective power may have a beneficial effect during unpredictable and uncontrollable circumstances such as the COVID-19 pandemic.

Covid-19 Induced Distress, Concerns, and Uncertainty

Since the onset of the COVID-19 pandemic, research has highlighted the presence of various sources of concern, uncertainty, and stress (Asmundson & Taylor, 2020). Among the most commonly reported concerns by individuals are those related to health and physical well-being, followed by worries about economic security, alongside other sources of stress, anxiety, and even depression (e.g., Osofsky et al., 2020).

Given the detrimental effects of COVID-19-induced concerns and uncertainties on psychological health (e.g., Cullen et al., 2020; Galea et al., 2020; Huang & Zhao, 2020; Kamble et al., 2022; Lakhan et al., 2020; Mazza et al., 2020; Pierce et al., 2020; Rajkumar, 2020; Salari et al., 2020; Torales et al., 2020; Vindegaard & Benros, 2020; Wirkner et al., 2021), it is imperative to explore which factors may prevent or mitigate these consequences.

Several scholars have suggested that people may turn to religion and/or spirituality to find meaning and cope with difficulties during distressful and uncertain situations (Ai et al., 2021; Ai et al., 2005; Aten et al., 2019). This study aims to explore whether beliefs in perceived spiritual support may moderate the relationship between COVID-19-related concerns and psychological distress.

Perceived Spiritual Support

Ordinary people and some scholars use the terms “religion” and “spirituality” interchangeably (e.g., Gonçalves et al., 2015; Hai et al., 2019; Koenig, 2020; Pellebon & Anderson, 1999), but others suggest that these two concepts should be differentiated (e.g., Carroll, 1998). Spirituality is generally conceptualized as a “personal, intrinsic phenomenon,” involving a sense of interconnectedness with a transcendental higher power or entity that provides existential meaning or belief systems answering life’s big questions (Cascio, 2008; Gray, 2017), whereas religion can be viewed as social feelings and beliefs (Anderson & Worthen, 1997; Carroll, 1998). Some researchers have suggested that spirituality may represent adaptive coping strategies that serve as protective factors or coping responses to psychological distress (Imperatori et al., 2020; Martínez et al., 2020; Pargament et al., 1998).

The present study focused on a measurable aspect of spirituality known as perceived spiritual support (PSS). PSS is a concept that emerged from investigations into spirituality as a potential resource for coping with significant existential crises and mortality (Ai et al., 2005; Ai et al., 2011; Ai et al., 2014). PSS reflects an ancient phenomenon centered on an internalized resource within humans derived from their personal relationship with a higher power before the development of institutional religion (Ai et al., 2005).

PSS was defined as “a function of believing one has support from a deep connection with a higher power or a spiritual relationship, which includes intimacy, emotional, cognitive, and resource aspects of this relation” (Ai et al., 2005, p. 767). A 12-item scale of PSS was developed to capture its four interrelated components perceived within a sacred relationship between humans and their significant higher power or entities.

Several studies have demonstrated that spirituality and religion, including perceived spiritual support (PSS), can serve as character strengths when dealing with difficult and challenging situations (Ai et al., 2005; Ai et al., 2013; Ai et al., 2014; Ai et al., 2021; Ano & Vasconcelles, 2005; Chatters et al., 2008; Pargament et al., 2005; Pargament et al., 1998; Rosmarin & Leidl, 2020; Sinding Bentzen, 2019). For example, spirituality has been linked with lower levels of anxiety and less depression (Bovero et al., 2019; Gonçalves et al., 2015; González-Sanguino et al., 2020; Johnson et al., 2011; Rias et al., 2020; Tolentino et al., 2022). Other authors have observed the beneficial impacts of spirituality and religion on people’s abilities to reduce psychological distress, cope with diseases, and enhance their quality of life and overall well-being (Gayatri et al., 2021; Hall, 2006; Schuster et al., 2001). Prieto-Ursúa and Jódar (2020) found that religiousness/spirituality could contribute to post-traumatic growth during stressful times.

Several studies have investigated the effectiveness of spirituality factors in reducing symptoms of anxiety and psychological distress during COVID-19 (Algahtani et al., 2022; Alquwez et al., 2022; Coppola et al., 2021; Esmaeili Darmian & Javadi, 2022; Kosic et al., 2023). Esmaeili Darmian and Javadi (2022) found that resilience and spiritual health helped to decrease psychological vulnerability during the pandemic. Similarly, Coppola and colleagues (2023) confirmed evidence that spirituality and religious practices were protective factors associated with psychological and mental health. Alquwez and colleagues (2022) highlighted that spirituality was critical in helping nurses overcome the myriad of adversities they faced during the pandemic. Kosic and collaborators (2023) discovered that resilience moderated the relationship between COVID-19 induced concerns and psychological distress, particularly among participants who held strong beliefs in spiritual support.

While perceived spiritual support (PSS) has shown positive effects in major natural and man-made disasters in the U.S. (Ai et al., 2005; Ai et al., 2011; Ai et al., 2013; Ai et al., 2021), it has not been well examined in the context of COVID-19. Therefore, we conducted two studies with aim to explore whether PSS moderates the relationship between concerns about COVID-19 and psychological distress, and whether it may protect individuals from distress amid the constraints of the pandemic.

Several authors suggested that when people feel uncertain about something, they desire certainty and closure (Kruglanski, 1989, 2004; Vos, 2020). In relation to that, we hypothesized that individuals who feel uncertain will experience less distress if they perceive spiritual support, which can provide them with comfort in uncertain and difficult moments (Aten et al., 2019). We expect that individuals with strong beliefs in spiritual support may experience less worry and distress about potential negative outcomes, and they may be more open to considering positive outcomes.

Beliefs in spiritual support may shift focus towards positive aspects, potentially protecting individuals from distress and enhancing their well-being.

Two surveys were conducted during the lockdown in Italy in the spring of 2021, a challenging time when Italy was grappling with the COVID-19 pandemic. The aim of these surveys was to investigate the relationship between concerns about COVID-19, perceived spiritual support (PSS), and distress during the pandemic.

Study 1

Participants

This study involved 215 participants of Italian nationality, comprising 117 females and 98 males. The majority of participants resided in the region of Lazio (central Italy). The mean age was 27.19 years ($SD = 12.02$ ranging from 18 to 65 years). In terms of educational attainment, most participants completed secondary school (69.8%), followed by those who completed an undergraduate course (13%), graduate course (10.7%), or post-graduate studies (1.9%). More than half of

the participants were students (57%). In terms of relationship status, nearly half of the participants were single (48.1%), followed by those in a relationship (32.2%), while the remaining were married (17.3%) or divorced (1.9%).

Procedures

The survey was conducted online using Google Forms. Participants were recruited through an advertisement posted by the principal investigator on her social media platforms (e.g., Facebook, WhatsApp). Additionally, some participants were recruited from a pool of students attending an introductory course in Social Psychology, who were requested to share the survey link within their social networks. Participants were informed that the questionnaire would take approximately 15 minutes to complete.

Ethical approval for the studies was obtained from the Ethics Committee of the Department of Developmental and Social Psychology, Sapienza University of Rome (Prot. 468). Informed consent was obtained from participants at the beginning of the questionnaire, and the anonymity of responses was emphasized. Participation in the study was voluntary.

Measures

The questionnaire included several instruments developed or adapted by the researchers for assessing psychological responses during the COVID-19 pandemic, as outlined below:

Scale of distress: This scale comprised 9 adjectives describing positive or negative emotional states (e.g., calm, concerned, anxious, distressed, tense). Participants were asked to rate how they had been feeling recently using a 5-point Likert scale (1=never; 5=always/usually). The Principal Axis Factoring analysis yielded a single dimension explaining 47.3% of the variance. An index of distress was computed by summing the ratings of the negative items (e.g., concerned, anxious, distressed, tense), after previously reversing the scoring for positive items. Higher scores indicate higher levels of distress ($M = 3.09$; $SD = .75$). The reliability of this scale, assessed by Cronbach's α , is .85.

The level of concern about COVID-19 was assessed using an 8-item scale developed by Kosic & Dzamonja Ignjatovic (2021) and Kosic et al. (2021). Participants rated their level of concern and fear related to COVID-19 on a 5-point Likert scale ranging from 1 (not at all) to 5 (very much). Examples of items include: "I am afraid that the Coronavirus may continue to spread in Italy" and "I am afraid that I may get infected by the Coronavirus." The Principal Axis Factoring analysis revealed a one-factor structure explaining 58.55% of the variance. An index of concerns about COVID-19 was computed by summing the ratings across the items, with higher values indicating greater levels of concern ($M = 3.40$; $SD = .97$). Cronbach's α was .90.

The level of concern about the personal economic difficulties (Kosic et al., 2023) was assessed using two items: (1) How do you rate your current economic situation compared with the period before the start of the COVID-19 pandemic. Participants responded on a 5-point scale ranging from 1 (much worse) to 5 (much better). (2) Are you concerned about your economic situation at the moment? Participants responded on a 5-point scale ranging from 1 (not concerned

at all) to 5 (very much concerned). A single index of economic concerns was computed by combining the ratings from these two items ($M = 3.28$; $SD = .79$).

Perceived Spiritual Support Scale (PSSS-S2; Ai et al., 2005, 2021) was used in this study. This six-item scale had previously been validated in Italy (Kosic et al., 2023). Participants responded using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Examples of items include: "I have an inner resource from my spiritual relationship with God that helps me face difficulties," "My religious or spiritual faith has helped me cope during times of difficulty," and "My religious or spiritual faith has provided me with comfort in uncertainty. The Principal Axis Factoring analysis revealed a single dimension that explained 81.51% of the variance. An aggregated index of perceived spiritual support was computed by summing the ratings across the items, with higher scores indicating greater levels of perceived spiritual support ($M = 1.79$; $SD = 1.06$; Cronbach's $\alpha = .96$).

Demographics: gender, age, level of education, civil status, and profession.

Data Analysis

First, the assumption of normality of the variables was assessed to ensure that distributions within all groups met the criteria for skewness and kurtosis. Skewness measures the symmetry of the data distribution, with a skewness value near zero indicating symmetry. Kurtosis measures the tail heaviness of the distribution. According to George & Mallery (2010), values of skewness and kurtosis between -2 and +2 are considered acceptable for demonstrating normal distribution.

After confirming that the variables met the assumptions of normality, correlations and multiple linear regression analyses were conducted to estimate the relationships between independent and dependent variables.

Results

Correlations

Bivariate correlations among variables were presented in Table 1. We observed that higher levels of concern about COVID-19 were positively correlated with both, perceived spiritual support (PSS) and psychological distress. Additionally, concerns about COVID-19 and distress were significantly correlated with gender, indicating that male participants tended to report lower levels of concern and distress compared to female participants.

Tab. 1. Correlations between the variables (Study 1)

	1)	2)	3)	4)	5)	6)
1) Concerns about COVID-19	-					
2) Perceived economic difficulties	-.03	-				
3) Perceived spiritual support	.10*	.03	-			
4) Distress	.35**	.08	-.09	-		
5) Gender	-.30**	-.03	-.09	-.23**	-	
6) Age	.05	.05	.31**	-.18*	-.05	-
7) Level of education	.06	-.06	.13	-.11-	.16	.41

* $p < .05$; ** $p < .01$

Multiple Regression Analyses

We conducted a regression analysis using SPSS 25 software to investigate the relationships between perceived main concerns during the COVID-19 pandemic and psychological distress, while considering the perceived spiritual support (PSS). In this analysis, the level of distress was the criterion variable. The predictors included concerns about COVID-19, perceived spiritual support (as a moderator), perceived economic difficulties, and the interaction between these variables. Additionally, socio-demographic variables such as age, gender, and level of education were included as covariates. All the variables were standardised.

The regression model explained 24% of the variance ($F[8, 208] = 7.96$, $p < .001$). Our analysis revealed several significant effects: (a) Concerns about COVID-19 had a significant positive correlation with psychological distress ($\beta = .33$, $t = 4.94$, $p < .001$), indicating that higher levels of concern about COVID-19 were associated with increased distress; (b) perception of economic difficulties was positively associated with psychological distress ($\beta = .12$, $t = 1.93$, $p < .05$), indicating that higher levels of economic problems were associated with increased distress; (c) The interaction between concerns about COVID-19 and perceived spiritual support (PSS) had a significant negative effect on psychological distress ($\beta = -.20$, $t = -3.01$, $p < .003$). This suggests that perceived spiritual support moderated the relationship between concerns about COVID-19 and distress, buffering the impact of concerns on distress; (d) Age also showed a significant negative effect on distress ($\beta = -.21$, $t = -2.88$, $p < .004$), indicating that older individuals tended to report lower levels of distress. However, we did not find a significant effect of the interaction between perceived economic difficulties and perceived spiritual support (PSS) on psychological distress.

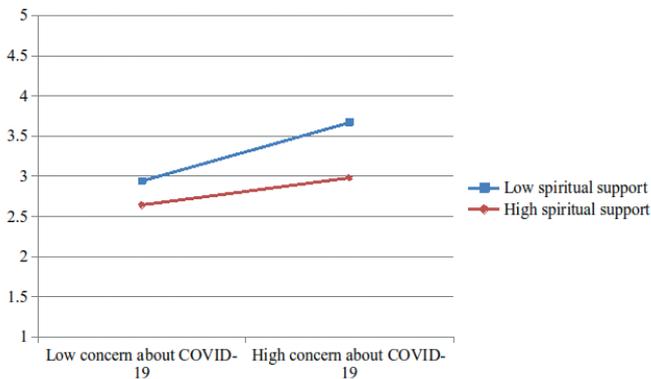
Tab. 2. Results of Multiple Regression Analysis for Distress as a criterion variable (Study 1)

	β	t	p
Concerns about COVID-19	.33	4.94	.001
Perceived economic difficulties	.12	1.93	.05
Perceived spiritual support	-.04	-.63	n.s.
Concerns about COVID-19 x Perceived spiritual support	-.20	-3.01	.003
Perceived economic difficulties x Perceived spiritual support	-.04	-.60	n.s.
Age	-.21	-1.66	.004
Gender	-.11	-2.88	n.s.
Level of education	-.02	-.28	n.s.

We conducted a simple slope analysis (Cohen et al., 2003) to further examine the effect of the interaction between concerns about COVID-19 and perceived spiritual support (PSS) on distress levels. As illustrated in Figure 1, the analysis revealed the following: (a) When participants perceived low spiritual support, the association between concerns about COVID-19 and distress was stronger ($\beta = .51$, $t = 5.57$, $p < .001$), indicating that higher levels of concern were significantly associated with greater distress among individuals with lower perceived spiritual support; (b) In contrast, when participants perceived high spiritual support, the association between concerns about

COVID-19 and distress was weaker and not significant ($\beta = .18, t = 1.84, p = .06$). This suggests that perceived spiritual support moderated the relationship, buffering the impact of concerns on distress levels among individuals with higher levels of perceived spiritual support.

Fig. 1. Two-way interaction between Concern about COVID-19 and the Perceived spiritual support on Distress (Study 1)



Discussion

The results of our study supported our hypothesis (1) that perceived spiritual support (PSS) moderates the relationship between concerns about COVID-19 and levels of distress, which is consistent with previous research (e.g., Ai et al., 2005, 2011, 2013, 2021; Kosic et al., 2023). These findings suggest that spirituality may have protective effects against psychological distress during disasters and prolonged crises such as the COVID-19 pandemic. Individuals with high PSS may be better able to contextualize uncontrollable circumstances within a broader perspective, finding comfort and reassurance in their belief system, which includes spirituality (Aten et al., 2019). PSS may function similarly to perceived social support in providing psychological protection during uncertainty induced by major disasters, fostering optimism and hope (Ai et al., 2013). In this context, both intrapersonal (spiritual beliefs) and interpersonal (social support) connections may contribute to a sense of psychological ease or certainty.

We did not find a significant effect of the interaction between the PSS and perceived economic difficulties. This result suggests that spiritual beliefs may not be sufficient to alleviate economic concerns that require tangible material support or assistance. While spiritual and social connections can provide important psychological support, economic challenges often demand practical solutions beyond the scope of interpersonal or intrapersonal resources.

Concerning the covariates, it was observed that emotional distress was lower among older participants in our study. One possible explanation for this this negative correlation could be that older people experienced fewer negative impacts from lockdown measures compared to younger individuals (Birditt et al., 2021; Cunningham et al., 2021). The psychological health of younger people was strongly affected by the COVID-19 pandemic probably because they have been more susceptible to social isolation and several other restrictions. In contrast,

older people may have been better able to manage health risks by isolating themselves more effectively, whereas younger individuals rely heavily on peer engagement and socialization for social development and psychological well-being. Additionally, older age is often associated with greater capacity for reflection, meaning-making, wisdom, and problem-solving skills, which may contribute to better psychological resilience and coping during challenging times like a pandemic. These factors could explain why emotional distress levels were lower among older participants in our study.

The obtained results were re-examined in Study 2, which was conducted a month later with a different group of participants.

Study 2

Participants

The study involved 235 participants of Italian nationality, with 177 females (66.8%). The mean age was 32.45 years ($SD = 15.07$, ranging from 18 to 69 years). In terms of educational attainment, 68.5% of participants completed high school, 6.8% had an undergraduate degree, 11.9% had a graduate degree, and 5.1% had a post-graduate degree. Approximately half of the participants (48.9%) were students.

Procedures

The participants were asked to respond to a questionnaire using Google Forms during March and April 2021, a period when the Italian government implemented emergency measures including a lockdown, travel restrictions between regions, and online schooling throughout the country. Recruitment for the study was conducted through an advertisement posted by the principal investigator on her social media (e.g., Facebook, WhatsApp). Although the survey link was distributed nationwide, the majority of participants (76.3%) were residents of central Italy, where the city of Rome is located. Participation in the study was voluntary. Informed consent was obtained from the participants at the beginning of the questionnaire, and the anonymity of responses was guaranteed.

Measures

We used a questionnaire that contained several scales:

Scale of Distress (9 items as in the Study 1): The same scale was used like in Study 1. The Principal Axis Factoring analysis yielded a single dimension explaining 54.03% of the variance. An index of distress was calculated by reversing the scoring for positive items, with higher scores indicating greater levels of distress ($M = 3.08; SD = .82$). Cronbach's α is .91.

Concerns about COVID-19 (Kosic et al. 2021) (10 items). The same scale was used as in the Study 1. The Principal Axis Factoring analysis revealed a one-factor structure explaining 53.11% of the variance. An index was created, with higher

scores indicating greater levels of concern about COVID-19 ($M = 3.12$; $SD = .92$). Cronbach's α was .92.

Perceived Spiritual Support Scale (PSSS-S2; Ai et al., 2005, 2021). The same scale was used as in the Study 1. The Principal Axis Factoring analysis resulted in a single dimension explaining 84.16% of the variance. An aggregated index of perceived spiritual support (PSS) was calculated, with higher scores indicating higher levels of perceived spiritual support ($M = 1.90$; $SD = 1.13$). Cronbach's α is .97.

Demographics: the participants indicated their age, gender, and level of education.

Data Analysis

We initially assessed the skewness and kurtosis values, which fell within the acceptable range of -2 to +2, indicating a normal distribution of the data.

Furthermore, we examined the relationships between concerns about COVID-19 and distress, while investigating the role of perceived spiritual support (PSS).

Results

Correlations

As shown in Table 3, concern about COVID-19 exhibited a positive correlation with distress, suggesting that greater concerns were associated with higher distress levels. In addition, perceived spiritual support (PSS) demonstrated a negative correlation with distress, indicating that higher levels of PSS were associated with lower levels of distress. Moreover, the analysis revealed that distress were higher among female participants compared to males. Furthermore, there was a strong negative correlation between age and distress, and between education level and distress, indicating that distress levels were lower among older participants and those with higher levels of education.

Tab. 3. Correlations between the variables (Study 2)

	1)	2)	3)	4)	5)
1) Concerns about COVID-19	-				
2) Perceived spiritual support	.11	-			
3) Distress	.29**	-.28**	-		
4) Gender	.29**	.10	.19**	-	
5) Age	-.02	.36**	-.51**	-.01	-
6) Level of education	-.14*	.01	-.23**	-.01	.31**

* $p < .05$; ** $p < .01$

Multiple Regression Analyses

To test our hypothesis that perceived spiritual support moderates the relationship between concerns about COVID-19 and distress, we conducted a regression analysis using Process Model 1 (Hayes, 2017). In this analysis, distress was considered as the outcome variable, while concerns about

COVID-19 and perceived spiritual support, along with their interaction effects, were included as predictors. Additionally, socio-demographic variables such as age, gender, and level of education were included as covariates. All variables were standardized as in Study 1.

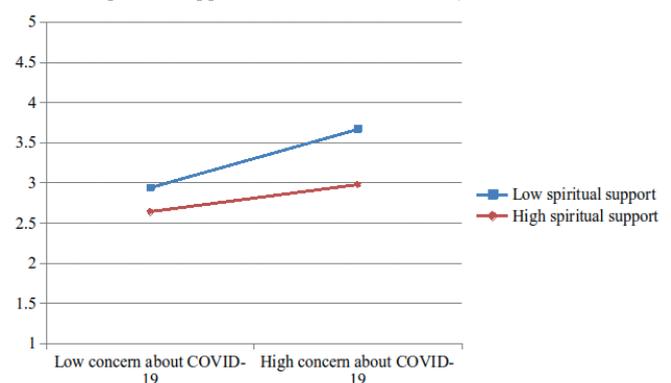
The regression model accounted for 40% of the variance ($F[6, 228] = 24.91, p < .001$). Our results showed: (1) a significant positive effect of concerns about COVID-19 ($\beta = .22, SE = .04, p < .001$), suggesting that higher levels of concern about COVID-19 were associated with higher distress; (2) a significant negative effect of perceived spiritual support ($\beta = -.13, SE = .05, p < .007$), indicating that higher levels of perceived spiritual support were associated with lower distress, and also (3) a significant effect of interaction between concerns about COVID-19 and perceived spiritual support ($\beta = -.13, SE = .04, p < .003$), suggesting that perceived spiritual support moderated the relationship between concerns about COVID-19 and distress.

Tab. 4. Results of Multiple Regression Analysis for Distress as a criterion variable (Study 2)

	β	t	p
Concerns about COVID-19	.22	4.86	.001
Perceived spiritual support	-.13	-2.71	.007
Concerns about COVID-19 x Perceived spiritual support	-.13	-2.99	.003
Age	.09	2.08	.04
Gender	-.35	-7.38	.001
Level of education	-.05	-1.19	n.s.

If we look at the relationship between concerns about COVID-19 and distress, conditional to levels of perceived spiritual support (PSS) we observe the following pattern: when PSS is low, the effect of concerns about COVID-19 on distress is significant and stronger ($\beta = .35, SE = .06, p < .001, 95\% CI: .23; .47$). When PSS is high, the effect remains significant but is weaker ($\beta = .16, SE = .07, p < .02, 95\% CI: .03; .30$). This indicates that individuals with lower perceived spiritual support (PSS) experience a more pronounced impact of concerns about COVID-19 on distress compared to those with higher perceived spiritual support. While the effect remains significant across both groups, the buffering effect of perceived spiritual support is evident in mitigating the impact of COVID-19 concerns on distress levels.

Fig. 2. Two-way interaction between Concern about COVID-19 and Perceived spiritual support (PSS) on Distress (Study 2)



Discussion

Study 2 confirmed the results obtained in Study 1 that perceived spiritual support (PSS) may have a positive role in alleviating psychological distress during widespread concerns about COVID-19 (Kosic et al., 2023). By perceiving spiritual support, individuals can contextualize life-and-death risks within a broader framework, enabling them to face the dangers that are beyond human control with a greater sense of acceptance and resilience.

General discussion

The COVID-19 pandemic has brought about significant existential and health concerns for billions of people worldwide since its onset. The current study investigated the relationship between concerns about COVID-19 and psychological distress in Italy, exploring the extent to which this relationship may be moderated by perceived spiritual support. The results align with previous findings and support our hypotheses (e.g., Ai, Huang, Bjorck, & Appel, 2013; Ano & Vasconcelles, 2005; Chatters et al., 2008; Kimhi et al., 2020; Pargament et al., 2005; Rosmarin & Leidl, 2020; Sinding Bentzen, 2019; Yıldırım & Arslan, 2022). Both studies suggest that the distress associated with COVID-19 worries could be mitigated among individuals who perceive higher spiritual support, reflecting a key aspect of Character Strength Spirituality in positive psychology.

As expected, individuals who draw on their existential connection with a higher power may experience greater relaxation, as demonstrated in this and prior studies (see also Kosic et al., 2023; Kosic & Ai, in press). This inclination can lead to a sense of confidence in spiritual protection. Perceived spiritual support is often associated with a reassuring, soothing, and hopeful outlook during stressful and uncertain times (Ai et al., 2005, 2022, 2013, 2021). In several studies in U.S., this protective function was predominantly indirect, explained by different other factors. An important contribution of our research is demonstrating the moderating role of spirituality in diverse populations with varied cultural and belief systems (Kosic et al., 2023; Kosic & Ai, in press). Additionally, our findings further validate a short form of the PSSS within the context of a global crisis like the COVID-19 pandemic. This scale was designed to encompass diverse spiritual beliefs, not limited to mainstream religions (Ai et al., 2005). Indeed, it indicates that the PSSS can serve as an effective tool for investigating spiritual coping during stressful life events in future research.

In addition, the findings from Study 1 suggest that perceived spiritual support (PSS) could effectively moderate the relationship between concerns about COVID-19 and emotional distress, but not necessarily the relationship between economic concerns and distress. It's possible that perceptions of economic hardship are more closely linked to concrete or materialistic support and proactive actions, rather than the confidence derived from spiritual beliefs. Future studies should investigate this hypothesis using prospective designs to gain a deeper understanding of these relationships.

The results of this research offer practical applications and valuable insights for researchers, practitioners, and policymakers concerned with maintaining psychological well-being during social health threats. Individuals' tendencies to focus on positive possibilities rather than threats, and their subjective assessments of potential outcomes, may be predicted by their desire for certainty and optimism. Those who believe in spiritual support may draw strength from within to achieve serenity, certainty, and optimism about the future.

Therefore, practitioners and policymakers should aim to cultivate a culture that empowers individuals to find inner strength and serenity, aiding them in coping with challenges and maintaining psychological well-being. It's crucial to help people maintain a sense of self-efficacy and the perception that they can take care of themselves, even amidst uncertainty and threats. These findings could inform strategies designed to promote resilience and well-being during challenging times, paving the way for further research into psychological interventions aimed at supporting highly stressed populations.

This study has several limitations that should be acknowledged. Firstly, reliance on self-report measures may introduce biases related to social desirability and unexplored vulnerabilities. To address this, future research could incorporate qualitative methods such as professional interviews and objective measurements of distress. Secondly, the online survey method used in this study may have introduced selection bias, as it primarily reached individuals who are active on social media platforms. This may have led to an overrepresentation of younger participants in the samples. Additionally, the study employed a cross-sectional design with a relatively small sample size. Future studies should address these limitations by employing longitudinal designs and recruiting more representative samples or diverse populations. Furthermore, investigating additional factors that may interact with perceived spirituality in dealing with various concerns, could provide valuable insights into the broader context of spirituality's impact on well-being.

Ethical approval

Research protocols were approved by the Ethics Committee of the Department of Social and Developmental Psychology (*Dipartimento di Psicologia dei Processi di Sviluppo e Socializzazione*), Sapienza – University of Rome (Prot. 468). Informed consent was obtained from all participants prior to data collection.

Data availability statement

Requests for access to the data reported in this study should be made to the corresponding author.

Funding/Financial Support

Grant support was received from the Sapienza-University of Rome, Italy) to collect the data (RM11916B45F8FE71).

Authors' contribution:

Project administration and conceptualization: AK; Methodology: AK; Data curation: AK; Formal analysis: AK; Writing—original draft preparation: AK and ALA; Writing—

review and editing: K and ALA. All authors have read and agreed to the submitted version of the manuscript.

Declaration of Conflicting Interests

The authors declare that there are no conflicts of interest.

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