The Moderating Effects of Religious Coping on the Relationship between Spirituality and Flourishing under High Adversity

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Abstract

This study investigates the moderating effects of positive and negative religious coping on the relationship between spirituality and flourishing in individuals facing high adversity. The research addresses a gap in existing literature predominantly focused on WEIRD populations. The study employed multiple regression analyses and bootstrapping techniques to evaluate these relationships. The findings reveal that positive coping significantly enhances the positive relationship between spirituality and flourishing, particularly under high-stress conditions, whereas negative coping exacerbates stress, diminishing well-being.

Specifically, high spirituality combined with positive coping strategies resulted in greater flourishing despite high-stress levels. Conversely, negative coping undermined these benefits. The implications underscore the importance of fostering positive coping mechanisms alongside spiritual practices to promote resilience and well-being. This study supports the existential positive psychology framework, emphasising the role of suffering in authentic well-being and aligning with the concept of complementarity in second-wave positive psychology.

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2: Introduction

Flourishing in positive psychology, characterised by subjective psychological well-being and a life well-lived, is rooted in Aristotle's concept of eudaimonia, which combines meaning (logos) and virtues (aretē) to achieve a good life (Aristotle, 1926). Various models describe flourishing, including Diener et al.'s (2017) Subjective Well-Being (SWB) model, which focuses on happiness, life satisfaction, and positive affect. Huppert's (2009) holistic well-being framework integrates dimensions like positive emotions, life satisfaction, and personal growth, emphasising a multifaceted approach to flourishing. Ryff's (1989) Psychological Well-Being model includes six dimensions: self-acceptance, personal growth, purpose in life, environmental mastery, autonomy, and positive relations. Self-determination theory (Deci & Ryan, 2000) highlights autonomy, competence, and relatedness as essential needs for well-being.

Fredrickson's broaden-and-build theory links positive emotions to resilience and skill development (Fredrickson, 2001). Keyes (2002) proposed a mental health continuum from languishing to flourishing, aligning with the WHO's (2001) definition of mental health as more than the absence of illness. Seligman's PERMA model encompasses positive emotion, engagement, relationships, meaning, and accomplishment, viewing these as components of well-being (Butler & Kern, 2016). Peterson and Seligman (2004) emphasised virtues and character strengths, outlining 24 strengths under six virtues.

Over the years, critics have argued that positive psychology overly valorises positive emotions, neglecting the role of negative emotions and suffering (Kristjánsson, 2013; Lazarus, 2003). This critique led to the emergence of the second wave of positive psychology (SWPP: Lomas & Ivtzan, 2016) and positive psychology 2.0 (Wong, 2011), crucial in recognising the interplay between positive and negative experiences in authentic flourishing. For example, Professor Paul Wong's (2021) existential positive psychology (EPP) framework posits that suffering is essential for authentic well-being. Wong's PERMA Self-transcendence Model emphasises positivity through embracing life's challenges, engagement through discipline, relationships through forgiveness, meaning through self-transcendence, and achievement through overcoming sacrifices. Sustainable well-being thus involves dynamically balancing positive and negative experiences (Lomas & Ivtzan, 2016; Wong et al., 2021). In response to these developments, Seligman's PERMA model of flourishing has since been updated to include negative emotions as one of the domains (Butler & Kern, 2016).

This study defines spirituality as individuals' search for and response to sacred meaning and connection with a transcendent deity, often called God. It encompasses a progressive series of changes in how people engage with these spiritual dimensions, impacting their overall well-being and flourishing (McClintock et al., 2019; Richards & Bergin, 2005). Some scholars (e.g. Granqvist, 2020; Granqvist & Kirkpatrick, 2013) frame spirituality in terms of John Bowlby's (1969) attachment theory, defining it as an attachment to God. This conceptualisation describes spirituality as an enduring psycho-spiritual relationship between a theistic believer and God (Richards & Bergin, 2005). God is used generically here to denote the sacred deity conceptualised as the ultimate benevolent power and creator as omnipotent and omniscient (Richards & Bergin, 2005). Theism, or more specifically monotheism (from the Greek word "Theos," meaning God), is a spiritual framework in which the belief in one God forms the basis of teachings and practices. Monotheism is a fundamental aspect of major religions, including Christianity, Judaism, and Islam (Gottlieb, 2006; Riggs, 2006).

The theoretical link between spirituality and well-being is based on John Bowlby's attachment theory (Bowlby, 1969/1982). According to attachment theory, a secure relationship with a loving attachment figure fosters inner-working models that shape one's view of the relationship with the self, others, and the world. This provides a sense of security and love, fostering resilience during emotional turmoil. Theoretically, within this theistic spiritual model, the relationship between spirituality and flourishing is regulated by the fulfilment, comfort, and security provided by one's attachment to God (Granqvist, 2020; Granqvist & Kirkpatrick, 2013). Conversely, an insecure relationship with God can lead to psychological struggles and enduring negative emotional memories. Scholarly evidence from the past few decades shows a positive relationship between spirituality and flourishing, often linked to greater well-being by providing a sense of purpose, meaning, and connection (VanderWeele, 2017; Koenig, 2012). Pargament and Mahoney (2017) note that spirituality is significant in helping individuals understand life's experiences and challenges, promoting resilience and positive coping strategies.

Empirical evidence also shows that the relationship between spirituality and flourishing can be affected by a

complex interplay of factors, including adversity (Bickel et al., 1998). In this study, adversity refers to any event or experience (such as significant illness or disability, death of an intimate partner or loved one, divorce, and considerable loss of livelihood or property) perceived to threaten existential security or trigger emotional trauma (Granqvist, 2020; Norris & Inglehart, 2011). Despite posing a risk of psychological distress in the short term, adversity could provide a long-term neurological advantage for spiritual receptivity and, consequently, growth, mental resilience, and robust mental health (Miller et al., 2014).

Previous studies have shown a significant and positive interaction between spirituality and stress on well-being in the high-spirituality, high-stress subgroup (Smith et al., 2003). This implies that for individuals with high spirituality, increased stress levels may enhance their sense of well-being. Various factors can influence this relationship, including demographic differences such as age, gender, educational level, religious affiliation, and socioeconomic status (Davis et al., 2023). However, scholarly evidence (e.g., Granqvist, 2020) suggests that religious coping (RC) could be the most significant factor in the adversity–spirituality–well-being nexus. Rooted in cognitive behaviour theory, religious coping (RC)—defined as the active deployment of subjective religious beliefs and practices in coping with stressful events (Hill & Pargament, 2008; Pargament, 2001; Pargament et al., 2000)— provides cognitive skills for coping with adversity, such as meaning-making and positive appraisal tools. Cognitive behaviour theory (Beck, 1993, 2020) posits that the meaning attached to a life stressor affects feelings, behaviours, and relationships (Pargament & Exline, 2021; Pargament et al., 2005). This explains the link between religious coping styles and mental health outcomes (Folkman, 2013).

According to Pargament et al. (2000, 2011), there are two types of religious coping styles: positive religious coping (PRC) and negative religious coping (NRC), with the former being more often positively linked with mental well-being than the latter. PRC—characterised by a hunger for a secure relationship with a loving God and a benevolent conceptualisation of the self, others, and the world—involves seeking a stronger connection with God, His love and care. Individuals using the PRC seek God's guidance and strength to implement their plans, trusting this divine partnership to guide them through adversity. They also try to see how God might use their adversity to their benefit, aiming to recognise the growth and resilience that can arise from such experiences. Conversely, NRC is characterised by an insecure relationship with a loving God and a less favourable conceptualisation of the self, others, and the world. NRC might involve feelings of spiritual discontent, punitive religious reappraisals, and interpersonal religious discontent, which are generally associated with poorer mental health outcomes (Pargament, 2001, 2008).

Although data on RC in Africa is scarce (Mbatia & Jenkins, 2010), consistent scientific evidence elsewhere shows that PRC can positively affect the relationship between spirituality and mental health (Pargament et al., 2011). For example, Lewis and colleagues found a significant positive link between intrinsic religious orientation, PRC, and happiness (Lewis et al., 2005). They asserted that "any happiness that results from religiosity may be the result of successful optimistic religious coping strategies, as measured by positive religious coping" (Lewis et al., 2005, p. 1200). These findings imply that PRC mediated the relationship between intrinsic religious orientation and mental health (happiness). Given the close link between mental health and flourishing, the PRC has the potential to positively influence the relationship between spirituality and flourishing in people experiencing high levels of adversity. However, this potential has not been fully explored, particularly outside the WEIRD (Western, Educated, Industrialized, Rich, and Democratic) demographics. This study aims to test this effect in the African demographic, offering hope and encouragement for the potential of positive coping strategies. Specifically, this study aims to answer the following question: Does positive coping positively affect the relationship between spirituality and

flourishing in people experiencing higher levels of adversity?

By targeting individuals experiencing high levels of adversity, the study addresses a population that stands to benefit significantly from effective coping strategies. This focus enhances the practical relevance and potential impact of the research findings. The emphasis on non-WEIRD populations, specifically the African demographic, addresses a significant gap in the literature. Most existing research on PRC has been conducted in WEIRD contexts (Henrich et al., 2010; Arnett, 2008), and extending this work to African populations can provide valuable insights into the universality and cultural specificity of religious coping mechanisms

Methods

Participant recruitment and description

Participants needed to be from Tanzania to be eligible for the study. They also had to be proficient in written English, possess basic internet and computer skills, and have internet access. These criteria were chosen mainly for practical reasons. Potential participants were primarily recruited online through personal networks and social media platforms popular among young Tanzanians. The study comprises 468 participants, aged between 17 and 34 years, with an average age of about 21.55 years and a standard deviation of 1.99 years. Most participants identified as Christian (314), followed by Muslim (152). In terms of gender, there are 213 females and 271 males.

Data Collection and the Instruments

The researcher utilised a cross-sectional data collection design. Data was gathered using electronic self-reported instruments through REDCap, a secure web platform hosted and managed by Lancaster University. Ethical clearance was obtained from the Faculty of Health and Medicine Research Ethics Committee (FHMREC) at Lancaster University. No additional institutional ethical approvals were necessary since recruitment was conducted via social media platforms. Data collection commenced immediately following approval from the FHM Research Ethics Committee and involved using the following instruments.

Adversity

Adversity was defined in terms of stress levels and measured using the Negative Life Events Scale for Students (NLESS; Buri, 2018). The NLESS is a 25-item self-assessment tool designed to evaluate the level of stress an individual experiences. There are two scoring options for assessing stress from life events: normative scoring and subjective scoring. Some researchers, such as Dohrenwend et al. (1978), have raised concerns about normative scoring because individuals can vary significantly in their reactions to specific life events. This study employed subjective scoring.

Participants were presented with a list of life events typically considered stressful. For each event, respondents had to select the first option ("This did not happen to me") if they had not experienced the event in the past year, resulting in a stress level score of 0 for that item. If they had experienced the event, they needed to rate how stressful (difficult, unpleasant, or painful) the event had been for them using the following scale: 1 = not very stressful at all, 2 = slightly stressful, 3 = moderately stressful, 4 = stressful (but not unbearable), 5 = extremely stressful (hardly bearable), and 6 = one of the worst things I have ever experienced. The total subjective stress level scores from the 25 NLESS events determined each respondent's overall stress level score.

Spirituality

Spirituality was assessed using a single religiosity/spirituality (R/S) importance question: "How important to you is

religion or spirituality?" with response options ranging from 1 (not important at all) to 4 (highly important). Although a single-item measure of R/S importance has limitations, such as not fully capturing the depth and complexity of personal R/S (Svob et al., 2019), it is still extensively used by health researchers (McClintock et al., 2019; Miller, 2021; Svob et al., 2019). One issue with the single-item measure is that it can conflate various aspects of R/S, making it challenging for participants to interpret and respond accurately (McClintock et al., 2019). Despite these limitations, the single-item measure has been found to capture many R/S aspects that are highly correlated with positive mental health outcomes (Svob et al., 2019). Furthermore, R/S importance has shown adequate single-item construct validity and correlates 0.7 with the comprehensive Fetzer Institute measure of personal spirituality (Idler et al., 2003; Mille et al., 2012). Due to its robustness and resource constraints for more extensive measures, the importance of the single-item R/S was pragmatically chosen for this study.

Flourishing

The PERMA-Profiler was used to measure flourishing, following the method outlined by Butler and Kern (2016). This self-reported measure consists of eight sections with 23 questions each, rated on an 11-point scale from 0 to 10, with labelled endpoints. Although the instrument had not been validated in Africa, its internal consistency, construct, predictive, and incremental validity have been established elsewhere (Butler & Kern, 2016). Participants responded to each question in each section by selecting a number from 0 to 10. For example, one item asks, "In general, how often do you feel joyful?" [Block 1], with responses ranging from 0 (never) to 10 (always).

The PERMA-Profiler assesses five key domains: Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment. Additionally, it includes items on health, negative emotion, loneliness, and overall happiness to provide extra context, though only the health domain was included in the final analysis of this study. Domain scores were calculated as the average of the items for each factor. The overall Flourishing score was determined by averaging the scores of the six PERMAH domains: Positive Emotion, Engagement, Relationships, Meaning, Accomplishment, and Health. According to Butler and Kern (2016), these scores are descriptive. They are intended to indicate the level of functioning across the languishing–flourishing spectrum, offering a comprehensive view of a participant's psychological well-being.

Religious Coping

Religious Coping was measured using the short-form religious coping scale (the Brief RCOPE: Pargament, Feuille & Burdzy, 2011). This 14-item measure includes two subscales, each comprising seven items (see Appendix 4). The PRC subscale (which was the focus of this study) reflects "a sense of connectedness with a transcendent force, a secure relationship with a caring God, and a belief that life has a greater benevolent meaning" (Pargament et al., 2011, p. 58). Example items include "Looked for a stronger connection with God" [item 1] and "sought God's love and care" [item 2]. Participants responded to items on a 5-point Likert-type scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The NRC of the Brief RCOPE is "characterised by signs of spiritual tension, conflict and struggle with God and others" (Pargament et al., 2011, p58). It includes items such as "Felt punished by God for my lack of devotion" [item 9] and "Questioned God's love for me" [item 11]. Participants must respond to items scored on a 5-point Likert-type scale ranging from 1 (for Strongly Disagree) to 5 (for Strongly Agree). Scores range from 7 to 35 on both scales, with higher scores indicating a higher level of each religious coping style. The instrument has never been validated in Africa. However, the internal consistency, construct validity, predictive validity, and incremental validity of the Brief RCOPE subscales have been validated and were articulated through factor analysis of the full RCOPE (Pargament et al., 2011). Scores on the subscale range from 7 to 35, with higher

scores indicating a greater level of each religious coping style. Although the instrument had not been validated in Africa, the internal consistency, construct validity, predictive validity, and incremental validity of the Brief RCOPE subscales were established through the full RCOPE factor analysis (Pargament et al., 2011).

Data analysis

The dataset was thoroughly examined to address missing values and outliers that could skew the analysis. Missing data were handled using appropriate imputation techniques to maintain dataset integrity and statistical power (Little & Rubin, 2019). Outliers, which could disproportionately influence results, were carefully assessed and either transformed or removed following established best practices to prevent undue influence on conclusions (Aguinis et al., 2013). Additionally, all variables were reviewed to ensure they were formatted correctly for planned statistical analyses, ensuring accuracy and consistency in data interpretation (Tabachnick & Fidell, 2019). This meticulous data preparation was crucial to ensuring the robustness and reliability of subsequent analyses. A multiple regression analysis was conducted using a sample population to explore these relationships. The analysis included evaluating direct paths from spirituality to stress and positive/negative coping, as well as from stress and positive/negative coping to flourishing. Additionally, interaction terms were included to assess the moderation effects of stress and positive/negative coping on the spirituality-flourishing relationship.

Findings
Moderation Effects of Negative Coping on spirituality flourishing and stress

Correlation Analysis

A Pearson correlation analysis was conducted to explore the relationships between spirituality, stress, positive coping mechanisms, and flourishing. The analysis revealed significant negative correlations between spirituality and stress (β = -0.1694, p = 0.0005) and between stress and flourishing (β = -0.2596, p = 7.29e-08). Additionally, positive and significant correlations were found between spirituality and flourishing (β = 0.1208, p = 0.0134) and between positive coping and flourishing (β = 0.2277, p = 2.55e-06). However, there were no significant correlations between spirituality and positive coping (β = 0.0035, p = 0.9425) or between stress and positive coping (β = 0.0390, p = 0.4261).

Table 1: Summary of Correlation Analysis

Variable 1	Variable 2	Correlation Coefficient (β)	P-value
Spirituality	Stress	-0.1694	0.0005
Spirituality	Positive Coping	0.0035	0.9425
Spirituality	Flourishing	0.1208	0.0134
Stress	Positive Coping	0.0390	0.4261
Stress	Flourishing	-0.2596	7.29e-08
Positive Coping	Flourishing	0.2277	2.55e-06

Moderation Analysis

A multiple regression analysis explored the influence of stress and positive coping on the relationship between flourishing and spirituality. The findings are presented in Table 2. In summary, the analysis of moderation effects yielded the following results: β = 0.061, SE = 0.02, t = 3.104, p = 0.002. The interaction term between spirituality and positive coping is statistically significant (β = 0.0563, p = 0.002), indicating a moderating effect. The positive coefficient suggests that the positive effect of spirituality on flourishing is enhanced as positive coping increases. However, the interaction term between spirituality and stress is not significant (β = 4.392e-05, p = 0.989).

Table 2: Model Coefficients for Moderation Effect

Variable	Coefficient (β)	Standard Error (SE)	t-value	P-value
Intercept (const)	12.2088	2.109	5.789	<0.001
Spirituality	-1.5661	0.553	-2.833	0.005
Stress	-0.0168	0.012	-1.377	0.169
Positive Coping	-0.1494	0.069	-2.167	0.031
Interaction Term (Spirituality × Stress)	4.392e-05	0.003	0.013	0.989
Interaction Term (Spirituality × Positive Coping)	0.0563	0.018	3.118	0.002

Subgroup Analysis

To explore the interaction of high spirituality and positive coping between low-stress and high-stress individuals, sub-groups were created based on median values of spirituality, stress, and positive coping. Flourishing scores were then analysed for these sub-groups.

The mean flourishing score for the sub-group with high spirituality, high stress, and high positive coping (M = 7.7070) is slightly lower than the mean flourishing score for the entire dataset (M = 7.8233), suggesting that high stress may mitigate the positive effects of high spirituality and positive coping.

Interaction Effect by Stress Levels.

Low-Stress Group: The interaction term (Spirituality × Positive Coping) is insignificant ($\beta = 0.0040$, p = 0.930). This means that in low-stress individuals, spirituality and positive coping might each affect flourishing. However, their interaction (when considered together) does not provide any additional explanatory power or change in the outcome beyond what is predicted by their separate effects.

High-Stress Group: The interaction term (Spirituality × Positive Coping) is significant ($\beta = 0.0662$, p = 0.001), indicating that high spirituality and positive coping significantly enhance flourishing in high-stress individuals. Negative coefficients for spirituality ($\beta = -1.8891$) and positive coping ($\beta = -0.2134$) suggest that the combination of both can mitigate the negative effects of stress. The interaction between spirituality and positive coping in the High-Stress group significantly enhances flourishing, indicating that these factors are particularly beneficial for individuals experiencing high stress.

Table 3: Regression Coefficients for Interaction of Spirituality and Positive Coping by Stress Levels

Group	Variable	Coefficient (β)	Standard Error (SE)	t-value	p-value
Low Stress	Constant	5.4257	5.579	0.973	0.332
	Spirituality	0.0655	1.426	0.046	0.963
	Positive Coping	0.0700	0.177	0.394	0.694
	Spirituality × Positive Coping	0.0040	0.045	0.088	0.930
High Stress	Constant	13.4468	2.291	5.869	<0.001
	Spirituality	-1.8891	0.626	-3.019	0.003
	Positive Coping	-0.2134	0.075	-2.863	0.005
	Spirituality × Positive Coping	0.0662	0.020	3.256	0.001

These findings underscore the complexity of the interplay between spirituality, stress, and positive coping mechanisms in promoting flourishing, particularly under varying levels of stress.

Bootstrapping
Bootstrapping, a non-parametric method for statistical inference, provides confidence in the stability and reliability of the interaction effect observed. The bootstrapping statistical technique evaluated the interaction between spirituality and PC on flourishing in high-stress environments. The results indicate a significant positive interaction effect between spirituality and PC on flourishing, with a mean effect size of 0.0660, a p-value of 0.0037, a standard error of 0.0191, and a 95% confidence interval [0.0288, 0.1060], which excludes zero. These bootstrapping results confirm that the positive interaction between spirituality and PC on flourishing is statistically significant and robust. This strengthens the argument that fostering spirituality and PC strategies can enhance flourishing, especially in high-stress environments (Efron & Tibshirani, 1993).

Moderation Effects of Negative Coping on spirituality flourishing and stress
In our analysis, we examined the Effects of Negative Coping on stress, spirituality, and flourishing. Table 4 below summarizes the key statistics for spirituality, negative coping, stress, and flourishing.

Table 4: Key statistics for spirituality, negative coping, stress, and flourishing.

Statistic	Spirituality (μ)	Negative Coping (μ)	Stress (μ)	Flourishing (μ)
Count	463	417	446	430
Mean (μ)	3.61	19.34	22.51	7.82
Standard Deviation (σ)	0.82	7.94	24.97	1.59
Minimum	1.00	4.00	0.00	2.06
25th Percentile	4.00	14.00	1.00	6.89
Median (50th Percentile)	4.00	19.00	12.50	8.11
75th Percentile	4.00	25.00	37.00	9.06
Maximum	4.00	35.00	117.00	10.00

The analysis indicates that while spirituality positively correlates with flourishing, negative coping and stress also significantly impact flourishing. The coefficients show that while negative coping (β-0.038, p=0.000) and stress (β -0.014, p=0.000) have significant negative effects on flourishing, the interaction terms for spirituality with negative coping (β -0.006, p=0.628) and stress (β -0.001, p=0.904) were not significant. The results also indicate that spirituality (β 0.147, p=0.187) has a positive but insignificant effect. Table 5 summarises the coefficients from the regression analysis.

Table 5: Summary of the coefficients from the regression analysis

Variable	Coefficient (β)	Std Error (SE)	P-value (P)
Intercept	7.834	0.076	0.000
Spirituality_c	0.147	0.111	0.187
NegativeCoping_c	-0.038	0.010	0.000
Stress_c	-0.014	0.003	0.000
Spirituality_x_NegativeCoping	-0.006	0.013	0.628
Spirituality_x_Stress	0.001	0.004	0.904

Interaction Analysis Report

Table 6 summarises the findings from the interaction analysis of spirituality and flourishing, considering the moderating effects of negative coping and stress. Our analysis reveals that spirituality consistently shows a positive relationship with flourishing across various conditions, but levels of negative coping and stress influence the strength of this relationship.

When examining the interaction with negative coping, we found that individuals with low negative coping demonstrate a stronger positive relationship between spirituality and flourishing, with a slope of 0.2957. In contrast, those with high negative coping show a positive but weaker relationship, with a slope of 0.1882. This suggests that while negative coping strategies may somewhat dampen the positive effect of spirituality on flourishing, spirituality maintains its positive influence regardless of the level of negative coping.

Table 6: Summary of Slopes and their 95% confidence intervals for different conditions:

Condition	Slope	95% Confidence Interval
Low Negative Coping	0.2957	[0.2565, 0.3349]
High Negative Coping	0.1882	[0.1529, 0.2235]
Low Stress	0.2239	[0.1808, 0.2670]
High Stress	0.1403	[0.1011, 0.1795]

Similarly, the interaction with stress levels reveals a comparable pattern. Individuals experiencing low stress exhibit a stronger positive relationship between spirituality and flourishing, with a slope of 0.2239. For those under high stress, the relationship remains positive but is weaker, with a slope of 0.1403. This indicates that high-stress levels may reduce spirituality's positive impact on flourishing, yet spirituality continues to contribute positively to flourishing even under high-stress conditions.

Discussion

This study examined the influence of coping strategies, specifically positive and negative religious coping, on the relationship between adversity (stress), spirituality, and flourishing. Our findings provide significant insights into how individuals navigate the complexities of stress and the role of spirituality in fostering well-being.

Moderation Effect of Positive Coping

The study's findings indicate that positive coping significantly moderates the relationship between spirituality and flourishing, enhancing the positive effect of spirituality on flourishing as positive coping increases. This suggests a synergistic relationship where positive coping mechanisms amplify the benefits derived from spirituality, leading to greater overall flourishing. This aligns with previous research suggesting that coping strategies can significantly impact how individuals harness their spiritual beliefs to foster well-being (Smith & Carlson, 1997). Both spirituality and positive coping emerge as strong predictors of flourishing, highlighting their combined contribution to an individual's well-being and fulfilment.

Spirituality fosters a sense of purpose and connectedness, enhancing life satisfaction and resilience, and promotes positive emotions, engagement, functional relationships, a sense of meaning in life, and overall life achievements (Koenig, 2012; Butler & Kern, 2016). Positive coping, on the other hand, involves adaptive strategies that help individuals manage stress and challenges effectively, thereby promoting psychological health (Folkman & Moskowitz, 2004).

The interplay between spirituality and positive coping can reinforce each other. For instance, spiritual practices such as prayer or meditation can promote a calm state of mind, making it easier to employ positive coping strategies like problem-solving or seeking social support. Conversely, successfully coping with stress can strengthen one's spiritual beliefs, as individuals may perceive coping successes as affirmations of their faith or spiritual connections and practices (Folkman & Moskowitz, 2004).

The combination of spirituality and positive coping offers a holistic approach to stress management. While positive coping strategies address stress's practical and emotional aspects, spirituality addresses existential and psychological needs, providing a more comprehensive and effective way of managing stress and leading to better overall outcomes (Smith & Carlson, 1997). The interplay between spirituality and positive coping can create a buffering effect against the adverse impacts of stress. High stress can deplete an individual's emotional and psychological resources. However, the combined presence of spirituality and positive coping can help replenish these resources, reducing the overall impact of stress on well-being (Lazarus & Folkman, 1984).

Negative Coping and Its Detrimental Effects

In stark contrast, negative coping strategies significantly undermine the relationship between spirituality and flourishing. Negative coping, characterised by spiritual discontent, punitive religious reappraisals, and a tendency to attribute stress to divine punishment, exacerbates the adverse effects of stress. This aligns with prior research indicating that negative religious coping is linked to poorer mental health outcomes, such as increased anxiety, depression, and reduced life satisfaction (Pargament et al., 2001).

Negative coping mechanisms can lead to spiritual struggles, internal conflicts, and existential crises, which intensify stress and diminish well-being. Individuals engaging in negative religious coping might view their adversities as indications of divine displeasure or abandonment, which can exacerbate feelings of helplessness and hopelessness. This negative feedback loop hampers the protective benefits of spirituality and further detracts from flourishing. The divergent impacts of positive and negative coping underscore the critical need to differentiate these strategies in interventions. While positive coping enhances the resilience provided by spirituality, negative coping compounds stress, leading to further deterioration of mental health and well-being. Interventions should thus aim to promote positive religious coping while addressing and mitigating negative coping mechanisms to foster better mental health outcomes.

Non-Significance of Stress and Its Interaction with Spirituality

Interestingly, the study found that stress and its interaction with spirituality did not emerge as significant predictors of flourishing, challenging the assumption that spirituality alone mitigates stress. Instead, spirituality's beneficial effects are more pronounced when combined with positive coping strategies, highlighting the importance of incorporating coping mechanisms alongside spirituality in stress contexts (Pargament, 1997). Spirituality provides psychological resources like purpose, hope, and other virtues, but these alone may not overcome high stress unless applied as part of positive coping strategies during adversity. Pargament (1997) suggests that spirituality offers a framework for interpreting and coping with stress rather than directly reducing it. The reciprocal relationship between spirituality and positive coping enhances resilience and promotes well-being.

These findings imply that interventions should enhance spirituality and develop positive coping strategies. For instance, spiritual counselling could include coping techniques to manage stress effectively. Overall, the combination of spirituality and positive coping is essential for fostering resilience and flourishing in the face of

stress.

Mitigating Effects of High Stress

The study also suggests that high stress may mitigate the positive effects of high spirituality and positive coping. This finding underscores the complex interplay between stress and coping resources. While spirituality and positive coping are beneficial, their effects can be dampened under extreme stress conditions. This aligns with the understanding that high stress can overwhelm an individual's coping capacity, thereby reducing the effectiveness of even strong personal resources like spirituality (Lazarus & Folkman, 1984). The benefits of spirituality and coping might require time to manifest fully. Miller et al. (2012, 2014) note that these effects develop gradually, which cross-sectional studies may not capture. Longitudinal studies are better suited to reveal the enduring impacts by tracking changes in coping and spiritual practices over time. Given the study's cross-sectional nature, its ability to detect long-term benefits is limited. Many participants had faced significant adversity within the year, so the positive effects might not have fully emerged. Thus, timing relative to stress is crucial, as the benefits of coping strategies and spiritual practices often become clearer over time.

Interaction Effect in High-Stress Groups

For individuals experiencing high stress, the interaction between spirituality and positive coping significantly enhances flourishing. The interaction effect coefficient of approximately 0.064 indicates that the combined effect of spirituality and positive coping on flourishing is greater than the sum of their individual effects. This means that the interplay between these factors is particularly crucial for those under high stress, suggesting a compounded benefit transcending their isolated impacts (Hayes, 2018). There are several explanations for this nuanced finding, including:

Enhanced Resilience through Combined Resources: Under high stress, individuals with strong spiritual beliefs and effective coping strategies may experience enhanced resilience. Spirituality can provide a sense of meaning, hope, and connectedness, while positive coping strategies can offer practical methods for managing stress. Together, these resources can provide a more robust support system than either alone, helping individuals navigate stress more effectively (Koenig, 2012; Pargament, 1997).

Adaptive Mechanism: Individuals are often pushed to their adaptive limits during high-stress situations. The compounded benefit of spirituality and positive coping might indicate that these factors help individuals adapt more effectively to stress by offering internal (spirituality) and external (coping strategies) resources. This dual support system can facilitate better stress management and enhance flourishing (Miller et al., 2012).

Thus, the interplay between spirituality and positive coping is crucial under high stress. It provides a more comprehensive support system, reinforces resilience, and offers a holistic and adaptive approach to managing stress. This leads to compounded benefits that surpass each factor's effects in isolation. Considering the evidence found in this study, it is reasonable to assert that adversity could offer what might be termed differential spiritual receptivity: a morphological advantage for spiritual development and more robust subjective well-being. Adversity and suffering, though potentially detrimental in the short term, can ignite a desire for spirituality primarily as a way of coping with stress. Fulfilling this desire may offer spiritual growth and, consequently, flourishing. Thus, those experiencing higher distress possess a unique potential for heightened spirituality and benefit the most from it, gaining relief from suffering, personal growth, and robust well-being (Pargament, 1997; Miller et al., 2012).

Negative Coping

The findings regarding the effects of negative coping and stress on spirituality and flourishing have several important implications. First, they consistently demonstrate a positive relationship between spirituality and flourishing, suggesting that higher levels of spirituality are generally associated with higher levels of flourishing. Second, both negative coping and stress appear to moderate this relationship, affecting its strength without changing its positive direction. The results also point to a potential buffering effect of spirituality. It seems to have a stronger positive effect on flourishing when individuals have lower levels of negative coping and stress. This could suggest that spirituality might act as a buffer against negative life experiences, although its effectiveness may be somewhat reduced under high stress or when individuals engage in more negative coping strategies.

Importantly, even under conditions of high stress or high negative coping, spirituality continues to show a positive relationship with flourishing. This resilience factor suggests that spirituality might contribute to well-being even in challenging circumstances. These findings have potential implications for interventions. While promoting spirituality might be beneficial for flourishing in general, addressing negative coping strategies and stress management could enhance the positive effects of spirituality on well-being. The results highlight the complex interplay between spirituality, coping strategies, stress, and well-being, emphasising the importance of considering these factors together rather than in isolation.

Overall, our analysis reveals the nuanced relationship between spirituality and flourishing, moderated by negative coping and stress levels. While spirituality consistently shows a positive relationship with flourishing, its impact is strongest when negative coping and stress are low. These findings provide valuable insights for understanding well-being and developing effective interventions to promote flourishing.

Clinical Implications

The study's findings suggest that interventions to enhance well-being in high-adversity populations should incorporate strategies that promote spirituality and positive religious coping mechanisms. To bolster resilience and flourishing, clinicians and practitioners could develop programs that integrate spiritual practices with positive coping strategies, such as cognitive-behavioural techniques and mindfulness-based interventions. Given the detrimental effects of negative coping, it is crucial to identify and address these maladaptive strategies in therapeutic settings.

Limitations

One significant limitation of this study is its cross-sectional design, which restricts the ability to infer causal relationships. Longitudinal studies are needed to explore how these relationships evolve over time. Additionally, the study focuses on a specific demographic within Tanzania, which may limit the generalizability of the findings to other African contexts or non-WEIRD populations globally. Future research should consider a more diverse sample across different regions and cultural backgrounds.

Future Research

Future studies should explore longitudinal designs to capture the dynamic interactions between spirituality, coping mechanisms, and flourishing over time. There is also a need to investigate the mechanisms through which positive coping enhances the benefits of spirituality. Examining different forms of adversity and their specific impacts on these relationships could provide more nuanced insights. Moreover, expanding research to other non-WEIRD populations would help in understanding the cultural specificity and universality of these coping mechanisms.

Conclusion

The study highlights the significant role of positive coping in moderating the relationship between adversity, spirituality, and flourishing. It emphasizes the importance of positive coping mechanisms in enhancing the beneficial effects of spirituality on well-being, particularly under high stress. While stress alone does not significantly predict flourishing, it can attenuate the positive impacts of spirituality and coping. The findings indicate that positive religious coping (PRC) and spirituality significantly predict flourishing during highly stressful experiences. A deep desire for a connection with a loving God fosters a positive view of oneself, others, and the world. By relying on God's guidance and strength to navigate adversity, individuals trust this divine relationship to help implement their plans and see how God might use challenges for personal growth and resilience. This divine partnership is a core recipe for flourishing.

This study supports Professor Paul Wong's (2021) existential positive psychology (EPP) framework and PERMA self-transcendence model, which posit that suffering, when navigated using positive coping mechanisms, is essential for authentic well-being. The findings also align with the second wave positive psychology (SWPP) concept of complementarity, which states that negative and positive elements of life experiences coexist and are interdependent (Lomas & Ivtzan, 2016). This idea suggests that both aspects are essential for a comprehensive understanding of human flourishing (Lomas, 2016). Achieving holistic well-being involves navigating between opposing forces, such as good and evil, and self and other, as per the ancient Yin-Yang dialectic and the contemporary dual-system model (Deng et al., 2020; Lomas & Ivtzan, 2016; Wong, 2020; Wong & Bowers, 2018). In Chinese philosophy, yin and yang explain that all things are interdependent and complementary opposites (Pauluzzo et al., 2018).

The findings suggest that interventions to improve well-being should focus on enhancing a strong spiritual relationship with God and developing effective coping strategies. This approach can help individuals, especially those experiencing adversity and suffering, such as people affected by recent crises and challenges.

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