Coping with Daily Stress: Differential Role of Spiritual Experience on Daily Positive and Negative Affect

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**Objectives.** On the global-level, spiritual experiences have been shown to buffer against the negative effects of stress on well-being for older adults, but this global-level analysis may not reflect the day-to-day processes at work. The present project uses a daily paradigm to examine the potential moderating effect of everyday spiritual experience (ESE) on the deleterious impact of a given day’s perceived stress (PS) on that day’s positive and negative affect (PA/NA).

**Method.** Participants were 244 older adults aged 55–80 years who completed daily assessments for up to 56 days.

**Results.** Results partially support the moderating hypothesis: ESE buffered the negative effect of PS on same-day NA but had a positive direct effect on same-day PA.

**Discussion.** These results point to a differential function of ESE—that it serves a coping function for NA but enhances PA directly—in the day-to-day lives of older adults, shedding light on the nuanced role of religiousness and spirituality when it comes to coping with daily stress.

**Key Words:** Daily stress—Spiritual coping—Daily affect—Daily well-being—Aging.

Feelings of stress are an unfortunate reality of life and can be the result of once-in-a-lifetime events such as the death of a spouse or the everyday hassles of life such as car trouble or an argument with a loved one. According to stress-and-coping theory, the extent to which this stress has a negative impact on well-being is largely a factor of the utilization and efficacy of the coping resources at an individual’s disposal (Aldwin, 2009; Lazarus & Folkman, 1984). The substantial cultural presence of religion and spirituality, along with its particular significance to older adults (Koenig, 1994; Pew Research Center, 2009), makes faith a potentially powerful coping resource in the lives of aging Americans. Some have suggested that the coping function of religion and spirituality increases in salience with age due to the increasing awareness of one’s own mortality, which prompts older individuals to place a greater emphasis on existential aspects of life than they may have when they were younger (Fiori, Brown, Cortina, & Antonucci, 2006; Koenig, 1994). One dimension of spiritual coping that is especially relevant to daily stress is that of everyday spiritual experience (ESE), which applies to a broader demographic than some other religious or spiritual domains by referring to aspects of spirituality that are not necessarily tied to religion; these include feeling the presence of God, feeling touched by the beauty of creation, or having a sense of inner peace and harmony (Underwood & Teresi, 2002). Globally, experiences like these serve to enhance dimensions of both physical and psychological well-being, particularly in older adults (Ellison & Fan, 2008; McCauley, Tarpley, Haaz, & Bartlett, 2008; Pargament, 1997); they also appear to tap the presence of daily spiritual coping (Jackson & Bergeman, 2011; Keefe et al., 2001).

Few studies have examined the coping function of ESE on the daily level: one study found beneficial associations of daily spiritual experience with daily arthritis pain and affect but did not explicitly test the moderating effect (Keefe et al., 2001) and another examined spiritual coping as a daily mediator of stress attribution and affect in adolescents but used only a single item to assess spiritual coping (Roese, Vaughn, Aldridge, & Villodas, 2009). The present study adds to this daily ESE literature by (a) investigating the coping function of ESE in the context of psychological stress, (b) explicitly testing the moderating function of ESE, and (c) using a full scale to assess daily ESE. The specific question of interest here is whether ESE buffers against the negative effects of a given day’s level of perceived stress (PS) on that day’s mood (positive and negative affect; PA/NA) in older adults. Hypotheses were that on days when individuals experience PS above their own average, they will also report higher NA and lower PA on that day (main effect for PS); that on days when individuals report spiritual experience above their own average, they will also have lower NA and higher PA (main effect for spiritual experience); and that the presence of daily spiritual experience will buffer—or moderate—the negative impact of a given day’s stress on that day’s affect (interaction effect).

**METHOD**

**Participants and Procedure.** Participants (N = 244, aged 55–80 years) comprised a subsample of the larger Notre Dame Study of Health and Well-Being, a project exploring the processes and correlates of stress and well-being.
of stress and well-being in middle-aged and older adults; the project was approved by the Institutional Review Board. Participants who agreed to participate in a 56-day “burst” of survey assessments received daily surveys by mail that they completed each night and returned in postage-paid envelopes supplied by the researchers. Of the 273 original participants, 29 (10.6%) did not complete the ESE scale on any of the 56 days and were omitted from the analyses. All participants received gift cards to an establishment of their choice for their participation ($10.00 per week completed).

Demographic characteristics for the subsample are as follows: 63% of participants are female; 45% are married, 23% are widowed, 23% are divorced or separated, and 9% are single; 97% have at least a high school education and 29% have a college degree; and the sample is 83% Caucasian, 11% African American, 3% Hispanic or Latino, 1% Asian or Pacific Islander, and 2% Other. Regarding income, 2% make less than $7,500 annually, 17% earn $7,500–$14,999, 22% earn $15,000–$24,999, 25% earn $25,000–$39,999, 25% earn $40,000–$74,999, 6% earn $75,000–$99,999, and 3% earn $100,000 or more.

**Measures**

The 10-item global Perceived Stress Scale (Cohen & Williamson, 1988) was adapted to measure daily PS by changing the original “How often ...?” questions to “Today I ...” statements. Items were rated on a 4-point agreement scale; higher scores reflect higher PS ($\alpha = 0.90$). Note that the reliability alphas for all daily scales represent the average alpha across 10 randomly selected days; a 20% missing data rule applied to all the scales.

ESE was assessed via a 5-item daily version of the Daily Spiritual Experiences Scale (Underwood & Teresi, 2002), based on the 6-item version selected for the Brief Multidimensional Measure of Religiousness and Spirituality (Fetzer Institute/National Institute on Aging, 1999), rated on a 4-point scale ranging from 1 (not at all) to 4 (very much); higher scores indicate greater spiritual experience that day. Individuals who did not wish to answer were instructed to skip to the next section of the daily assessment ($\alpha = 0.93$).

The Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988) assessed daily PA/NA. The scale consists of 10 NA descriptors and 10 PA descriptors rated on a 5-point scale. Higher PA and NA scores indicate greater PA and NA, respectively. For PA, $\alpha = 0.94$; for NA, $\alpha = 0.91$.

**Analysis**

The multilevel regression models used to test the stress-buffering hypotheses on PA and NA are provided below. The Level 1 parameters of interest are the main effect of PS on mood ($\gamma_{10}$), the main effect of ESE on mood ($\gamma_{20}$), and the daily interaction (buffering) effect of PS × ESE on mood ($\gamma_{30}$). We centered these within-person terms at each person’s mean so that individuals served as their own control (i.e., effects reflected the extent to which an individual was above or below their own average on a given day). Between-person differences in the average levels of ESE and PS were controlled by including mean terms at Level 2 ($\gamma_{01}$ and $\gamma_{02}$; calculated across days for each person). These models thus permit the examination of the within-day, within-person effects of ESE and PS on mood.

$\text{NA}_{ij} = [\gamma_{10} + \gamma_{01}(m_{PS_{ij}}) + \gamma_{12}(m_{ESE_{ij}}) + u_{ij}]$

$\text{PA}_{ij} = [\gamma_{10} + \gamma_{01}(m_{PS_{ij}}) + \gamma_{12}(m_{ESE_{ij}}) + u_{ij}]$

**Results**

**Descriptive Statistics**

Please see Table 1 for means, standard deviations, and correlations. The observation values reflect 89% completion across person-days for the PA scale, 89% completion across person-days for the NA scale, 89% completion across person-days for the PS scale, and 77% completion across person-days for the ESE scale. Completion is calculated by dividing the total possible number of person-days ($N \times 56$) by the number of observations for each scale, so, for PA, $12,200/ (244 \times 56) = 0.89$.

| Table 1. Means, Standard Deviations, and Correlations Between Daily Variables and Age |
|-----------------------------------------|-----------|-----|---|---|---|
| **Daily variables**                      | **Observations** | **M** | **SD** | **1.** | **2.** |
| 1. Positive affect                       | 12,200     | 33.25| 8.76| —  |
| 2. Negative affect                       | 12,177     | 12.20| 4.53| $-0.38$| —  |
| 3. Perceived stress                      | 12,171     | 17.44| 5.37| $-0.62$| 0.72|
| 4. Everyday spiritual experiences       | 10,500     | 15.73| 4.28| 0.39| $-0.02$| $-0.18$| —  |
| 5. Age                                  | 233        | 69.49| 4.54| 0.01| $-0.05$| $-0.05$| 0.03|

Notes. Means and standard deviations are calculated from all observations (for daily variables, “observations” = person-days; for age, “observations” = N). The N of 233 for age reflects the fact that 11 of the 244 participants in the sample did not report their age. Correlations, with significant correlations in bold ($p < .01$), are calculated based on a single day’s data (Day 1) because including all person-day observations ($N \times 56$) would artificially inflate the significance of the correlations; Day 1 correlations were representative of the within-day correlations across the 56 days.
Within-Day Buffering Analysis

The results for the model testing the main effects and interaction effect of daily PS and ESE on daily NA revealed a significant main effect for PS ($\gamma_{10} = 0.38, p < .0001$), but not for ESE ($\gamma_{20} = -0.02, p = .46$). There was a significant interaction effect ($\gamma_{21} = -0.02, p = .005$), indicating a buffering effect of ESE on the impact of PS on NA within a given day. Concerning the mean terms, mean level of PS ($\gamma_{01}$) had a significant effect on NA ($p < .0001$), whereas mean level of ESE ($\gamma_{02}$) did not ($p = .95$).

When the same model was run for daily PA, both PS and ESE main effects were significant ($\gamma_{10} = -0.63, p < .0001$; $\gamma_{20} = 0.62, p < .0001$). Unlike NA, however, the interaction parameter $\gamma_{30}$ was not significant for PA ($0.007, p = .575$). These results indicate that individuals report lower PA on days when they experience levels of PS above their own average and report higher PA on days when they experience levels of ESE above their own average; but the two do not interact with one another to create a buffering effect. The effects of both mean terms ($\gamma_{01}$ and $\gamma_{02}$) were significant for PA ($p < .0001$).

Discussion

The primary hypothesis—that ESE would buffer against the negative effects of PS on daily mood—was partially supported by the results; the interaction effect between ESE and PS was significant for NA, but not for PA. This indicates that, although ESE does not directly affect NA when PS is included in the model, it does serve to ameliorate the negative effects of PS on NA through a moderating function. These results support the findings of Keefe et al. (2001), which suggested that ESE operates as a coping mechanism—helping chronic pain sufferers experience less NA and more PA than those with less ESE—and also extend them, demonstrating an explicit buffering effect of ESE on the negative effects of PS on mood and providing further evidence for the efficacy of daily spiritual experience as a coping mechanism. The lack of a buffering effect on PA is likely a factor of the strong main effect found for ESE on PA—rather than operating on PA through an interaction with PS, ESE influences PA directly, independent of PS. So, when it comes to the relationship between PS and daily affect, it appears that ESE does come into play for both PA and NA, albeit in different ways: it serves a buffering function on NA, so that higher levels of ESE reduce the negative impact of stress on NA, whereas it consistently boosts PA, both on days when individuals do not feel stressed as well as on days when they do.

Implications and Future Directions

The findings presented here not only provide further evidence for the role of ESE as an effective coping resource for older adults but also extend the current literature by demonstrating its differential coping function for PA and NA. This project is also one of the first to examine the coping function of spiritual experiences on the daily level rather than using global measures, permitting a real-time glimpse into how spiritual experience functions in the day-to-day lives of older adults. The 56-day sampling period and the large sample are also strengths of the present research, providing greater confidence in the findings. From an applied perspective, these results also validate intervention programs such as that developed by Goldstein (2007), in which participants took part in a 3-week-long, non-denominational program designed to teach them how to cultivate “sacred moments”—similar in nature to the ESEs measured here—in their daily lives. The program had significant positive effects on psychological well-being, subjective well-being, and feelings of stress.

Future research should examine these daily processes in light of the multidimensional nature of religiousness and spirituality by looking at the daily coping functions of additional facets of religiousness and spirituality, such as daily religious practices or daily spiritual commitment. It is also important to investigate the potential mechanisms involved in the direct within-day ESE–PA relationship that emerged. Additionally, because rates of religious and spiritual belief and commitment are higher in older cohorts (Pew Research Center, 2009), it is important to ascertain whether these relationships hold across the adult life span or are specific to individuals in later life. Regardless, the findings presented here indicate that, for religious and spiritual older adults, ESE not only enhances daily well-being directly but also buffers against the stresses of daily life.

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