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God, Can I Tell You Something? The Effect of Religious Coping on the Relationship between Anxiety Over Emotional Expression, Anxiety, and Depressive Symptoms

Jennifer L. Bryan[1], **Sydnee Lucas**[2], **Michelle C. Quist**[1], **Mai-Ly N. Steers**[1], **Dawn W. Foster**[3], **Chelsie M. Young**[1], and **Qian Lu**[1]

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Abstract

The current study investigated whether religious coping would moderate the association between ambivalence over emotional expression (AEE) and depressive symptoms and anxiety symptoms such that the positive relationship between AEE and depressive symptoms and anxiety symptoms would be weaker among those higher in religious coping. Three-hundred and fifty-two undergraduates (*M* age=23.51 years, *SD*=6.80; 84.4% female) completed study materials. Contrary to expectations, results revealed a significant interaction between religious coping and AEE such that religious coping exacerbated the relationship between higher AEE and distress symptoms. The implications of this study suggest that religious coping may not be an ideal coping mechanism for individuals with high levels of AEE. These results indicate the need to further examine the role of AEE in religious coping, and have potential implications for clinicians, healthcare professionals, and religious mentors who may promote the use of religious coping in treatment.

Keywords

ambivalence over emotional expression; religious coping; depressive symptoms; anxiety symptoms; turning to God

Depression and anxiety coexist as two of the most prominent psychological symptoms reported (DiMatteo, Lepper, & Croghan, 2000). Depressive and anxiety symptoms, in combination, can lead to a substantial list of dangerous sequelae that manifest both psychologically and physiologically (DiMatteo, Lepper, & Croghan, 2000). Ambivalence over Emotional Expression (AEE) occurs when someone has a desire to express a positive or negative emotion, but is reluctant to do so, which can further exacerbate symptomatology of both anxiety and depression (King & Emmons, 1990). One coping strategy that people may turn to is religious coping. Religious coping, specifically turning to God, is a means of seeking comfort, support, and/or guidance from a divine being either within the domain of

Please direct all correspondence regarding this manuscript to Jennifer L. Bryan, Department of Psychology, University of Houston, Houston, TX 77204-5022. Phone: (713)743-2644, Fax (713)743-8588, Jlbryan@central.uh.edu.

an organized religion, or on a more informal path through one's own spirituality (Carver, Scheier, & Weintraub, 1989). Since individuals who are high in AEE may not be able to derive their support from other humans, it is plausible that many people may choose to turn to God to cope. Thus, the present study specifically examines the moderating effects of religious coping. This study was designed to evaluate the relationship between AEE, anxiety, and depressive symptoms, while also examining the influence of religious coping on relationships amongst these variables.

Depression and Anxiety

Depression and anxiety are the most common psychopathology symptoms diagnosed today. According to the Center for Disease Control and Prevention, current data shows that 9.1 percent of persons in the United States are diagnosed with depression (CDC, 2010). Anxiety disorder doubles that of depression with diagnoses among 18.1 percent of the population (Kessler, Chiu, Demler,& Walters, 2005). Furthermore, a national survey involving over 130,000 college students found that 34 percent of students reported feeling symptoms of depression to the point of dysfunction within the past year of being surveyed, and up to 51 percent reported feeling symptoms of overwhelming anxiety (American College Health Association, 2013). Symptomatology of depression includes, but is not limited to: depressed mood, feelings of guilt and worthlessness, helplessness and hopelessness, loss of appetite, sleep disturbance, and psychomotor retardation (Radloff, 1977). Anxiety includes characteristics such as excessive rumination, worrying, uneasiness, apprehension, and fear about future uncertainties, all of which are based on either real or imagined events (Salunke, Umathe, & Chavan, 2013).

Anxiety and depression have been linked to various risky health behaviors, as well as impaired social functioning. Distress symptoms have been linked to increased drinking among adults (e.g., Dixit & Crum, 2000; Grant et al., 2004) and college students (e.g., Geisner, Mallett, & Kilmer, 2012). Furthermore, depressive symptoms have been associated with social, legal, psychological, and physical health problems such as: absence from class, work, or other obligations; illness as a direct result of unhealthy coping mechanisms (e.g., alcohol use); legal action (e.g., driving under the influence; Camatta & Nagoshi, 1995); and increased likelihood of noncompliance with medical treatment for anxiety, depression, or other comorbidities (DiMatteo, Lepper, & Croghan, 2000).

Ambivalence over Emotional Expression

AEE is defined as conflict between desire to express one's feelings and fear of negative consequences from exhibiting such expression (King & Emmons, 1990). Higher AEE can manifest in numerous ways, including psychological distress (Katz & Campbell, 1994; King, 1998), anxiety symptomology and depressive symptoms (Tucker, Winkelman, Katz, & Bermas 1999), physical symptomatology (King & Emmons, 1990; 1991), and poor interpersonal functioning. In turn this can lead to less marital satisfaction, dissatisfaction in other personal relationships (King, 1993), and a greater fear of intimacy (King & Emmons, 1991). Emmons and Colby (1995) found that higher AEE was associated with a perceived lack of adequate social support even after controlling for levels of emotional expressiveness.

Additionally, AEE has been found to be negatively associated with social support among populations including college students (Emmons & Colby, 1995), postmenopausal women (Michael et al., 2006), Dutch rheumatoid arthritis patients (van Middendorp et al., 2005). Moreover, gastrointestinal cancer patients who further reported increased pain levels and decreased emotional well-being: ultimately leading to a poorer quality of life (Porter, Keefe, Lipkus, & Hurwitz, 2005).

The association between AEE and increased anxiety symptoms and depressive symptoms has been shown to have several secondary consequences. Two studies by King and Emmons (1990; 1991) found that higher AEE predisposed one to depression, obsessive-compulsive tendencies, anxiety, paranoid ideation, and psychotism. An additional study found that AEE accurately predicted levels of depression over a four-month period, even when controlling for initial levels of depression, emotional expressiveness, and neuroticism, as well as intervening life events (Katz & Campbell, 1994).

The relationship between AEE, anxiety, and depression is detrimental for numerous reasons. An overly strong general avoidance of expressing emotions leads to repeated negative intra- or interpersonal consequences following emotional disclosure (Kennedy-Moore & Watson, 1999). King and Emmons (1991) found that people with high AEE find difficulty in understanding other's emotions related to constant overthinking and over reading of the stated emotions. Ineffective strategies in attempting to cope with stressful life events can cause those with higher AEE to experience a lower sense of well being, as well as confusion and conflict over emotional expression. This confusion, according to Lu, Uysal, and Teo (2011) may lead to feelings of helplessness over their psychological distress.

Social support is an avenue of coping for psychological health. However, those with higher AEE tend to report less perceived social support (Bryan et al., 2014). Furthermore, individuals higher in AEE tend to employ avoidant coping strategies, contributing to negative attitudes regarding social support. This may further heighten their fear of intimacy (Emmons & Colby, 1995). Additionally, findings show that suppression of emotions negatively impacts relationship satisfaction, regardless of ethnicity or age (English & John, 2013).

AEE is largely influenced by environment and culture. For example, Lu and Stanton (2010) demonstrated that Asians had higher AEE compared with Caucasians, because Asian culture generally discourages public expression of emotions. Those higher in AEE have also been shown to benefit from engaging in a safe non-judgment form of emotional expression, such as expressive writing (Lu & Stanton). The traditional expressive writing study asks participants to write about their most traumatic/stressful experience. Given that those who are higher in AEE experience difficulty expressing their emotions, writing gives the individual an outlet to express and give clarity to a situation. Methods for coping and inauthentic expression of emotions are being explored, with the hope of diminishing fear of social repercussions felt by people with higher AEE, and depression and anxiety. One such method looks to religious coping as a means of alleviation for such stressors.

Religious Coping

Numerous empirical studies have found that religion assists in an individual's ability to cope with a variety of personal and collective stressors, such as illness (Spilka, Hood, & Gorsuch, 1985), the loss of a child (McIntosh, Silver, & Wortman, 1993), trauma (Ai, Tice, Peterson, & Huang, 2005), terrorist threat (Fischer, Greitemeyer, Kastenmüller, Jonas, & Frey, 2006), and war (Ai & Peterson, 2004). Moreover, in most modern cultures, religion provides numerous psychological functions, for example, consoling people regarding their own mortality (Jonas & Fischer, 2006; Solomon, Greenberg, & Pyszczynski, 1991) providing a shared system of meaning in social interactions (Becker, 1971; Berger, 1969), and presenting clear social norms for living a righteous life (Allport, 1950; Bergin, 1991). Given these positive attributes, religious coping can be said to guide those who need assistance with any element of coping. Furthermore, when faced with social exclusion, participants reported heightened levels of religious affiliation across five studies (Aydin, Fischer, & Frey, 2010). This increase in religious affiliation not only buffered the stress caused by rejection, but was also shown to strengthen belief in God. Thus, socially excluded participants reported significantly increased levels of both personal and social forms of religiousness than included individuals. Furthermore, a post exclusion stress buffering effect was linked to religious affiliation. Socially excluded participants behaved less aggressively when reminded of the roles religion and faith played in their lives, particularly when compared to excluded individuals who received a neutral prime. These findings lend further support to the idea that religiosity functions as an effective coping mechanism when dealing with social rejection, which is a potential side effect of higher AEE, depression, and anxiety symptoms.

Religious coping has been evaluated closely in relation to depression and anxiety. In a sample of Hispanic participants that predominantly lived in areas with a high prevalence of crime, religious coping was found to positively offer social support and decrease feelings of depression. Religious coping further buffered the relationship between personal victimization and depression in those regularly partaking in religious coping (Epstein-Ngo, Maurizi, Bregman, & Ceballo, 2013). Previous research has also shown that religious coping produced positive effects among cancer patients, as Park, Cho, Blank, and Wortmann (2013) found a decreased fear of cancer reoccurrence in young to middle age cancer survivors utilizing this method.

Some common ways women cope with the diagnosis and subsequent treatments for involve participating in computer support groups and turning to religion. study by Shaw et al. (2007) examined how prayer and religious expression within computer support groups contributed to improved psychosocial outcomes for those coping with breast cancer. Surveys were administered before initial group access and four months afterward, and message transcripts of the discussion boards were analyzed qualitatively. The results revealed that a higher percentage of religion-associated words accompanied lower levels of negative emotion and higher levels of health self-efficacy and functional well being, after controlling for the patients' levels of religious beliefs. The most common themes were: putting trust in God about the course of the illness, belief in an afterlife and subsequent alleviation in fear of

death, finding blessings in everyday life, and appraising the cancer experience in a more constructive religious light (Shaw et al., 2007).

However, one does not necessarily have to encounter a severally traumatic experience or illness to benefit from turning to God to cope. Female university students who reported that they were likely to cope by turning to God reported less quantity and frequency of consuming alcohol (McKee, Hinson, Wall, & Spriel, 1998). Moreover, minority college students who turned to religion reported less minority stress and higher academic performance (Greer & Brown, 2011), and university enrolled students who reported a high rate of turning to God also reported higher satisfaction with life and less maladjustments (Ross, Handal, Clark, & Wal, 2009).

Given the evidence of the supportive nature of turning to religion to cope in times when one is unable to derive support of that magnitude from others, it could be worthwhile to consider religious coping as a potential moderator. That is, religious coping via turning to God may serve as a moderator of the relationship between AEE and mental distress, and individual differences in depression and anxiety symptoms may be explained by its evaluation. Moreover, turning to God to cope may be particularly useful for individuals who feel that they cannot express emotions in their human relationships. Ultimately, religious coping may buffer general stress, thus alleviating the stress and (potential desire to discuss it with others) before it can manifest into the emotional turmoil that those with AEE experience when contemplating communicating with other people. The present study was designed to evaluate the relationship between AEE and depressive symptoms and anxiety. The first and second hypotheses predicted (respectively) that AEE would be positively associated with anxiety symptoms and depressive symptoms, and that turning to God would be negatively associated with anxiety symptoms and depressive symptoms. The third hypothesis predicted that religious coping would moderate the association between AEE and depressive symptoms and anxiety symptoms such that the positive relationship between AEE and depressive symptoms and anxiety symptoms would be weaker among those high in religious coping than that among those low in religious coping.

Method

Participants and Procedure

Three hundred and fifty-two undergraduates from a large southern university completed study materials including measures of coping, AEE, depressive symptoms, and anxiety symptoms. Participants ranged in age from 18 to 58 years old (Mean age = 23.51, SD = 6.80, 84.4% female). The sample was ethnically diverse: 36.1% Caucasian, 20.2% Black/African American, 21.6% Asian/Pacific Islander, 6.0% Multi-Ethnic, 1.1% Native American/American Indian, and 14.2% other. Students were invited to participate via email, flyers, and announcements made in classrooms. Participants aged 18 and up were allowed to sign up to take the online survey. Participants received extra course credit for their participation.

Measures

Demographics—Participants provided demographic information such as age, gender, and racial/ethnic background.

Religious coping—The COPE (Carver, Scheier, & Weintraub, 1989) was used to assess how individuals tend to react when confronted with stressful situations. The COPE has demonstrated generally good reliability (αs from .46-.93; Cook & Heppner, 1997) and adequate convergent and discriminant validity (Clark, Bormann, Cropanzano, & James, 1995). Furthermore, the COPE has been predictably associated with relevant outcomes such as physical symptoms (Clark et al., 1995). For the purposes of this study, we used the turning to God subscale of the COPE inventory to measure religious coping. Four items assessed religious coping (α = .94). Sample items include, "I seek God's help" and "I pray more than usual" Response options ranged from 1 (*I usually don't do this at all*) to 4 (*I usually do this a lot*). Items were summed to create a total religious coping score.

Ambivalence over emotional expression—The Ambivalence over Emotional Expression Questionnaire (AEQ) consists of 28 items measuring individuals' expressions of positive and negative emotions and intimacy (King & Emmons, 1990). The AEQ has demonstrated satisfactory discriminant and convergent validity (King & Emmons, 1990). Participants responded to items on a Likert scale ranging from 1 (*never*) to 5 (*frequently*), indicating how often they felt what each statement suggested. Sample items include "I'd like to talk about my problems with others, but at times I just can't," and "I often cannot bring myself to express what I am really feeling." A mean score was computed for the AEQ (α = .95).

Anxiety symptoms and depressive symptoms—The Brief Symptom Inventory-18 (BSI-18; Derogatis, 2000) was used to evaluate participants' levels of anxiety symptoms and depressive symptoms. The BSI-18 has shown good reliability and validity and is highly correlated with other measures of psychological distress (Derogatis, 2000; Müller, Postert, Beyer, Furniss, & Achtergarde, 2010). Participants were asked to respond to a five-point Likert scale from 0 (*Not at all*) to 4 (*Extremely*) how much each of the following problems had bothered them in the past week. The anxiety symptoms subscale consists of six symptoms commonly associated with experiencing anxiety. Sample items include, "Nervousness or shakiness inside" and "Spell of terror or panic", (α = .83). The depressive symptoms subscale consists of six symptoms related to feelings of depression and includes items such as, "Feeling blue" and "Feeling hopeless about the future", (α = .88). Mean scores were computed for the anxiety symptoms and depressive symptoms subscales.

Results

Descriptives

Table 1 presents means, standard deviations, and zero-order correlations for each of the major variables in the study. Depressive symptoms and anxiety symptoms were positively associated with AEE and also positively associated with one another ($p < .001$). There were no other significant correlations.

Primary analyses

Two sets of hierarchical regression analyses were performed to examine the role of AEE and religious coping in predicting depressive symptoms and anxiety symptoms, controlling for gender. Gender was dummy coded as Females =0, Males =1. Further, each predictor was mean centered. In Step 1, depressive symptoms were evaluated as a function of AEE and religious coping. Results supported our first hypothesis that AEE would positively predict depressive symptoms, β = .50, $p<.001$. Conversely, we did not find evidence for our second hypothesis that religious coping would be significantly and negatively associated with depressive symptoms, β = -.05, $p = .32$. At Step 2, we added the two-way product term between AEE and religious coping in predicting depressive symptoms. The Step 2 regression analysis addressed our third hypothesis that AEE and religious coping would interact to predict depressive symptoms such that AEE would be positively related to depressive symptoms; however, this effect would be less pronounced for those higher in religious coping. Results revealed a significant two-way interaction between AEE and religious coping, β =.10, $p = .03$. The interaction was graphed using parameter estimate values from a regression equation such that low and high values were calculated by using one standard deviation below and above the means for each of the predictors (Cohen, Cohen, West, & Aiken, 2003). In addition, the slope of the mean for religious coping was included in the graph. Contrary to expectations, higher religious coping appeared to exacerbate the relationship between AEE and depressive symptoms. That is, AEE was associated with increased depressive symptoms, and this appeared to be stronger among individuals higher in religious coping (see Figure 1). A test of the simple slopes revealed that all three slopes: for lower religious coping (β =.40, $p<.0001$), the mean for religious coping (β =.50, $p<.0001$), and higher religious coping (β =.60, $p<.0001$) were significantly different from zero. Finally, the effect sizes (d) were calculated for all effects using the formula $d=2t/\sqrt{df}$ (Rosenthal & Rosnow, 1991) which is included in Table 2. Small, medium, and large effect sizes are typically considered .2, .5, and .8 respectively (Cohen, 1992). The effect size for AEE was large ($d = 1.17$) whereas the interaction term yielded a small effect size ($d = .24$).

The second set of hierarchical regression analyses used similar to the previous analysis except the criterion was anxiety symptoms rather than depressive symptoms. We hypothesized and found that AEE positively predicted anxiety, β =.51, $p<.001$. However, similar to the previous analysis, we did not find evidence to support our hypothesis that religious coping would negatively predict anxiety, β = -.03, $p=.52$. At Step 2, we added the two-way product term between AEE and religious coping in predicting anxiety. The Step 2 regression analysis addressed our final hypothesis that AEE and religious coping would interact to predict anxiety symptoms such that AEE would be positively related to anxiety; however, this effect would be less pronounced for those high in religious coping. Results mirrored the results of the interaction with depressive symptoms as the criterion. AEE was associated with increased anxiety, and this appeared to be stronger among those who are also higher in religious coping β = .14, $p < .01$. Thus, it appears that high religious coping might compound the relationship between high AEE and anxiety symptoms (see Figure 2). Similar to the previous results, a test of the simple slopes revealed that all three slopes: for lower religious coping (β =.35, $p <.0001$), the mean for religious coping (β =.49, $p <.0001$),

and higher religious coping (β =.63, p <.0001) were significantly different from zero. Likewise, nearly identical effect sizes were found such that t AEE yielded a large (d = 1.16) effect size and the interaction term yielded a small effect size (d = .24).

Discussion

This study evaluated the relationship between AEE, depressive symptoms, anxiety, and religious coping. Our first hypothesis was that AEE would be negatively associated with depressive symptoms and anxiety as with previous research (e.g., King & Emmons, 1990; 1991). Consistent with expectations, we found supporting evidence, indicating positive relationships between AEE and both depressive and anxiety symptoms (see Table 1). Our second hypothesis was that religious coping would be inversely associated with symptoms of anxiety symptoms and depressive symptoms, based on research that indicates a negative association (e.g., Epstein-Ngo, Maurizi, Bregman, & Ceballo, 2013). However, contrary to expectations, we did not find supporting evidence for our hypothesis. This may be due to using the Turning to God religious coping scale perhaps utilizing a positive and negative religious coping scale may have revealed a significant relationship. Moreover, differences in our target sample, compared to the target samples in previous literature may have contributed to our lack of results. Each of the previously cited studies evaluated religious coping in a population at high risk for anxiety symptoms and depression due to specific circumstances, whereas our population consisted of college students and had relatively low means for both anxiety and depression. Thus, it may be that college students face different types of stressors that, although predict symptoms of anxiety and depression, are resistant to religious coping strategies. Future studies could be developed to further examine how these constructs may relate to each other.

Our third hypothesis was that religious coping would moderate the positive association between AEE and depressive symptoms and anxiety symptoms such that it would be weaker among those higher in religious coping. This hypothesis stems from the perspective that religious coping may provide beneficial psychological relief from distress in the same way that emotional expression does, thereby acting as a buffer against depression and anxiety. Results revealed that, consistent with our hypothesis, religious coping reduced the negative association between AEE and distress among those with lower AEE; however, contrary to expectations, higher religious coping exacerbated the relationship between higher AEE and distress symptoms relative to lower religious coping. This indicates that individuals higher in AEE and religious coping may experience more depressive symptoms and anxiety symptoms than others.

There are several possible explanations for these findings, one of which is that individuals with higher levels of AEE may be reluctant to express their emotions to God, perhaps due to the religiosity-related anxiety (Orlická, 2000; Peterman, LaBelle, & Steinberg, 2014) or fear of being judged by God. This conflicts with their perceived views on the expectations of religiously affiliated people being able to easily express thoughts and feelings to God, and therefore heightens their feelings of anxiety symptoms and depression. Ultimately, this could explain why those higher in AEE and religious coping tended to report higher levels of depressive symptoms and anxiety. Fear of negative judgment may extend beyond people

to include God. Further, there may also be added consequences to the experience of psychological distress associated with construing God as omniscient and not subject to the same bias that can be ascribed to people. In other words, if people with higher AEE feel judged by others, they may engage in a protective mechanism in which they downplay others' opinions as ignorant, unintelligent, or otherwise biased. This dynamic has been observed in other populations that are characterized by fragile self-esteem, thus engaging in protective mechanisms, such as derogating others opinions (Horton & Sedikides, 2009). A protective mechanism such as this would not be feasible towards an omniscient God, as it could not be susceptible to human error, and therefore could lead to increased psychological distress. This may be particularly detrimental to individuals when faced with greater stressors one is more likely to turn to spiritual resources when they lack non-religious resources for a given situation (Bickerton, Miner, Dowson, & Griffin, 2014: Pargament, 1997).

Another potential explanation for these findings is that a third variable maybe influencing the model. One such construct may be general needs satisfaction (GNS). The relationship between AEE and depressive symptoms has been demonstrated in previous literature to be partially mediated by GNS such that those higher in AEE and lower in GNS are more likely to feel depressed (Lu, Uysal, & Teo, 2011). Those lower in GNS often feel as though they have a lower self-worth relative to others and view themselves as incapable of succeeding in life (Heppner et al., 2008). Thus, it may be that those who are higher in AEE and lower in GNS might not feel they are worthy of God's love and attention. This in turn, could inhibit the benefits of religious coping. Further research is needed to elucidate the influence of GNS on AEE, religious coping, depressive symptoms, and anxiety. Similarly, it has been demonstrated in previous literature that college students tend to go through a religious development period in college, in which they question and re-identify their religious views and behaviors. Though religion was reported to be important to the students during this time, their engagement in religious behaviors declined (Stoppa & Lefkowitz, 2010). It is possible that religious coping goes through a similar period of adjustment, which could have an effect on the variable relationships in this study.

A third potential explanation is that those higher in AEE feel uncomfortable with their own perceptions of the self. Emphasis on religion may add additional value judgments on an individual's identity with respect to his or her religious views. In other words, it may be that those who are religious subscribe to the belief that they are expected to be perfect (or maintain the appearance thereof), and therefore the flaws they perceive in their selves carry the weight of additional self-judgment or discomfort. This self-judgment may lead them to feel ashamed of themselves, and past literature has demonstrated that shame can directly relate to anxiety, depression, and suicidal ideation (Bryan, Morrow, Etienne, & Ray-Sannerud, 2013). Future directions will aim to look at shame with relation to AEE and religious coping. Additional research is needed to further explore these relationships to elucidate effects and precursors to anxiety symptoms and depressive symptomatology.

The implications of this study are potentially far-reaching. Religious coping is often conveyed as a healthy and positive mechanism for dealing with stressors, and has been touted as having few negative repercussions (e.g., Foster et al., 2013). Therefore, any

evidence of negative outcomes associated with religious coping is of particular importance and warrants additional research. Further work is needed to better understand whether religious coping might be more beneficial for some individuals than others. Moreover, more research is needed to explore whether clinicians, healthcare providers, and religious mentors should suggest alternative coping mechanisms for particular individuals for whom religious coping might be less beneficial. This recommendation comes as some facets of religious coping might be better than others, and future research should test this. Research elucidating characteristics or situations that help investigators understand any potential detrimental effects of specific coping mechanisms presents a viable avenue for future research.

Limitations and Future Directions

The contributions of this study must be considered in light of its limitations. First of all, the sample population consisted of undergraduates, and therefore limits the generalizability of the results. Second, the cross-sectional nature of the study design does not allow for causal inferences or for the benefit of following trajectories over time. Future studies might incorporate more longitudinal measures to further investigate the nature of the relationships between AEE, religious coping, and symptoms of depression and anxiety. Interested researchers might examine the specific roles of religious coping, such as thanking God versus asking God for help with difficulties. It is also worth noting that religious coping was operationalized for the present study as “turning to God,” and as such, implications are generalized only to this operationalized definition. It will be important for additional work to explore whether findings replicate for other forms of religious coping, including positive and negative religious coping strategies linked with the religious coping framework (e.g., Piritunsky, Rosmarin, Pargament, & Midlarsky, 2011; Rosmarin, Pargament, Piritunsky, & Mahoney, 2010). Additionally, the present study did not evaluate the potential role of religious affiliation or belief in God. The current investigation focused on the range of religious coping and how it might be utilized to buffer against the deleterious effects of ambivalence over emotional expression. Future research might examine whether this relationship varies by religious affiliation. Future studies may also examine the relationship between intrinsic and extrinsic religiosity for those high in AEE with regards to depression. Also, additional research may wish to examine religious interventions designed to decrease AEE; perhaps talking with a religious leader who can provide positive feedback about the individual's emotion expression may be helpful in reducing that person's AEE and thus enable the individual to receive the benefits of religious coping. In measuring AEE in this study, the exclusive use of self-report should also be considered a limitation, as those with AEE might not want to express their emotions.

Conclusion

This study contributes to the religious coping and AEE literature seeking to understand and identify potential buffers for the disadvantageous effects of AEE on mental distress, and determine for whom using religion to cope is beneficial. Our findings were consistent with previous literature in that AEE was linked to symptoms of depression and anxiety symptoms in the present sample. However, evidence did not support our second hypotheses and only partially supported our third hypotheses in that religious coping did not negatively predict symptoms of depression and anxiety, and religious coping did not buffer the detrimental

effect of higher AEE on symptoms of depressive symptoms and anxiety, but rather appeared to exacerbate it. This suggests that using religion to cope may not always be a beneficial coping strategy and potential detrimental effects should be considered when designing psychological health interventions for people with higher AEE. Additional work is needed in order to better understand individual characteristics that might help explain whether there is a subset of individuals for whom religious buffering has detrimental effects, and to explore moderating and mediating effects on depressive symptoms and anxiety.

References

Ai, AL.; Peterson, C. Symptoms, religious coping, and positive attitudes of refugees from Kosovar war. In: Corales, AT., editor. Focus on posttraumatic stress disorder research. New York, NY: Nova Science; 2004. p. 127-161.

Ai AL, Tice NT, Peterson C, Huang B. Prayers, spiritual support, and positive attitudes in coping with the September 11 national crisis. Journal of Personality. 2005; 73:763–792. [PubMed: 15854013]

Allport, GW. The individual and his religion. New York, NY: MacMillan; 1950.

American College Health Association. American College Health Association–National College Health Assessment II: Reference group data report spring 2013. Hanover, MD: Author; 2013.

Aydin N, Fischer P, Frey D. Turning to God in the face of ostracism: Effects of social exclusion on religiousness. Personality & Social Psychology Bulletin. 2010; 36(6):742–753.10.1177/0146167210367491 [PubMed: 20410483]

Becker, E. The birth and death of meaning. New York, NY: Free Press; 1971.

Berger, PL. A rumor of angels. Garden City, NY: Doubleday; 1969.

Bergin AE. Values and religious issues in psychotherapy and mental health. American Psychologist. 1991; 46:394–403. [PubMed: 2048798]

Bickerton GR, Miner MH, Dowson M, Griffin B. Spiritual resources and work engagement among religious workers: A three-wave longitudinal study. Journal of Occupational and Organizational Psychology. 2014; 87(2):370–391.10.1111/joop.12052

Bryan CJ, Morrow CE, Etienne N, Ray-Sannerud B. Guilt, shame, and suicidal ideation in a military outpatient clinical sample. Depression and Anxiety. 2013; 30(1):55–60.10.1002/da.22002 [PubMed: 23077111]

Bryan JL, Quist MC, Young CM, Steers MLN, Foster DW, Lu Q. Canine comfort: Pet affinity buffers the negative impact of ambivalence over emotional expression on perceived social support. Personality and Individual Differences. in press.

Camatta CD, Nagoshi CT. Stress, depression, irrational beliefs, and alcohol use and problems in a college student sample. Alcoholism: Clinical and Experimental Research. 1995; 19:142–146.

Carver CS, Scheier MF, Weintraub JK. Assessing coping strategies: A theoretically based approach. Journal of Personality and Social Psychology. 1989; 56:267–283. [PubMed: 2926629]

Center for Disease Control. Current depression among adults -- United States, 2006 and 2008. MMWR: Morbidity & Mortality Weekly Report. 2010; 59(38):1229–1235. [PubMed: 20881934]

Clark KK, Bormann CA, Cropanzano RS, James K. Validation evidence for three coping measures. Journal of Personality Assessment. 1995; 65(3):434. [PubMed: 8609584]

Cohen J. A power primer. Psychological Bulletin. 1992; 112(1):155–159. [PubMed: 19565683]

Cohen, J.; Cohen, P.; West, SG.; Aiken, LS. Applied multiple regression/correlation analysis for the behavioral sciences. 3rd. Hillsdale, NJ: Erlbaum; 2003.

Cook SW, Heppner PP. A psychometric study of three coping measures. Educational and Psychological Measurement. 1997; 57(6):906–923.

Derogatis, LR. Brief Symptom Inventory (BSI) 18: Administration, scoring, and procedures manual. Minneapolis, MN: NCS Pearson; 2000.

DiMatteo MR, Lepper HS, Croghan TW. Depression is a risk factor for noncompliance with medical treatment: A meta-analysis of the effects of anxiety and depression on patient adherence. Archives of Internal Medicine. 2000; 160:2101–2107.10.1001/archinte.160.14.2101 [PubMed: 10904452]

Dixit AR, Crum RM. Prospective study of depression and the risk of heavy alcohol use in women. American Journal of Psychiatry. 2000; 157:751–758. [PubMed: 10784468]

Emmons RA, Colby PM. Emotional conflict and well-being: Relation to perceived availability, daily utilization, and observer reports of social support. Journal of Personality and Social Psychology. 1995; 68:947–959. [PubMed: 7776190]

English T, John OP. Understanding the social effects of emotion regulation: The mediating role of authenticity for individual differences in suppression. Emotion. 2013; 13(2):314–329.10.1037/a0029847 [PubMed: 23046456]

Epstein-Ngo Q, Maurizi L, Bregman A, Ceballo R. In response to community violence: Coping strategies and involuntary stress responses among Latino adolescents. Cultural Diversity & Ethnic Minority Psychology. 2013; 19(1):38–49.10.1037/a0029753 [PubMed: 23356355]

Fischer P, Greitemeyer T, Kastenmüller A, Jonas E, Frey D. Coping with terrorism: The impact of increased salience of terrorism on mood and self-efficacy of intrinsically religious and non-religious people. Personality and Social Psychology Bulletin. 2006; 32:365–377. [PubMed: 16455863]

Foster DW, Quist MC, Young CM, Bryan JL, Nguyen ML, Neighbors C. Benefit finding as a moderator of the relationship between spirituality/religiosity and drinking. Addictive Behaviors. 2013; 38(11):2647–2652. [PubMed: 23899427]

Geisner I, Mallett K, Kilmer JR. An examination of depressive symptoms and drinking patterns in first year college students. Issues in Mental Health Nursing. 2012; 33(5):280–287. [PubMed: 22545634]

Grant BF, Dawson DA, Stinson FS, Chou S, Dufour MC, Pickering RP. The 12-month prevalence and trends in DSM-IV alcohol abuse and dependence: United States, 1991-1992 and 2001-2002. Drug and Alcohol Dependence. 2004; 74(3):223–234. [PubMed: 15194200]

Greer TM, Brown P. Minority status stress and coping processes among African American college students. Journal Of Diversity In Higher Education. 2011; 4(1):26–38.10.1037/a0021267

Heppner WL, Kernis MH, Nezlek JB, Foster J, Lakey CE, Goldman BM. Within-person relationships among daily self-esteem, need satisfaction, and authenticity. Psychological Science. 2008; 19(11): 1140–1145.10.1111/j.1467-9280.2008.02215.x [PubMed: 19076486]

Horton RS, Sedikides C. Narcissistic responding to ego threat: When the status of the evaluator matters. Journal of Personality. 2009; 77(5):1493–1525. [PubMed: 19678876]

Jonas E, Fischer P. Terror management and religion: Evidence that intrinsic religiousness mitigates worldview defense following mortality salience. Journal of Personality and Social Psychology. 2006; 91:553–567. [PubMed: 16938037]

Katz IM, Campbell JD. Ambivalence over emotional expression and well-being: Nomothetic and idiographic tests of the stress-buffering hypothesis. Journal of Personality and Social Psychology. 1994; 67(3):513–524.10.1037/0022-3514.67.3.513

Kennedy-Moore, E.; Watson, JC. Expressing emotion: Myths, realities, and therapeutic strategies. New York, NY: Guilford Press; 1999.

Kessler RC, Chiu W, Demler O, Walters EE. Prevalence, Severity, and Comorbidity of 12-Month DSM-IV Disorders in the National Comorbidity Survey Replication. Archives of General Psychiatry. 2005; 62(6):617–627.10.1001/archpsyc.62.6.617 [PubMed: 15939839]

King LA. Emotional expression, ambivalence over expression, and marital satisfaction. Journal of Social and Personal Relationships. 1993; 10(4):601–607.

King LA. Ambivalence over emotional expression and reading emotions in situations and faces. Journal of Personality and Social Psychology. 1998; 74(3):753–762.10.1037/0022-3514.74.3.753 [PubMed: 9523417]

King LA, Emmons RA. Conflict over emotional expression: Psychological and physical correlates. Journal of Personality and Social Psychology. 1990; 58:864–877. [PubMed: 2348373]

King LA, Emmons RA. Psychological, physical, and interpersonal correlates of emotional expressiveness, conflict, and control. European Journal of Personality. 1991; 5:131–150.

Lu Q, Stanton AL. How benefits of expressive writing vary as a function of writing instructions, ethnicity and ambivalence over emotional expression. Psychology & Health. 2010; 25(6):669–684. [PubMed: 20204944]

Lu Q, Uysal A, Teo I. Need satisfaction and catastrophizing: Explaining the relationship among emotional ambivalence, pain, and depressive symptoms. Journal of Health Psychology. 2011; 16(5):819–827.10.1177/1359105310392092 [PubMed: 21346011]

McIntosh ND, Silver CR, Wortman BC. Religion's role in adjustment to a negative life event: Coping with the loss of a child. Journal of Personality and Social Psychology. 1993; 65:812–821. [PubMed: 8229652]

McKee SA, Hinson RE, Wall A, Spriel P. Alcohol outcome expectancies and coping styles as predictors of alcohol use in young adults. Addictive Behaviors. 1998; 23(1):17–22.10.1016/S0306-4603(97)00008-7 [PubMed: 9468737]

Michael YL, Wisdom JP, Perrin N, Bowen D, Cochrane BB, Brzyski R, Ritenbaugh C. Expression and Ambivalence over Expression of Negative Emotion: Cross-Sectional Associations with Psychosocial Factors and Health-Related Quality of Life in Postmenopausal Women. Journal of Women & Aging. 2006; 18(2):25–40.10.1300/J074v18n02_03 [PubMed: 16782658]

Müller JM, Postert C, Beyer T, Furniss T, Achtergarde S. Comparison of eleven short versions of the Symptom Checklist 90-Revised (SCL-90-R) for use in the assessment of general psychopathology. Journal of Psychopathology and Behavioral Assessment. 2010; 32(2):246–254.

Orlická L. Fear of God and of eternal damnation among Slovak Christian adolescents. Studia Psychologica. 2000; 42(4):369–378.

Pargament, KI. The psychology of religion and coping: Theory, research, practice. New York, NY: Guilford; 1997.

Park CL, Cho D, Blank TO, Wortmann JH. Cognitive and emotional aspects of fear of recurrence: Predictors and relations with adjustment in young to middle-aged cancer survivors. Psycho-Oncology. 2013; 22:1630–1638.10.1002/pon.3195 [PubMed: 23060271]

Peterman JS, LaBelle DR, Steinberg L. Devoutly anxious: The relationship between anxiety and religiosity in adolescence. Psychology of Religion and Spirituality. 2014; 6(2):113–122.10.1037/a0035447

Pirutinsky S, Rosmarin DH, Pargament KI, Midlarsky E. Does negative religious coping accompany, precede, or follow depression among Orthodox Jews? Journal of Affective Disorders. 2011; 132(3):401–405.10.1016/j.jad.2011.03.015 [PubMed: 21439650]

Porter LS, Keefe FJ, Lipkus I, Hurwitz H. Ambivalence over emotional expression in patients with gastrointestinal cancer and their caregivers: Associations with patient pain and quality of life. Pain. 2005; 117(3):340–348.10.1016/j.pain.2005.06.021 [PubMed: 16153771]

Radloff LS. The CES-D scale: A self-report depression scale for research in the general population. Applied Psychological Measurement. 1977; 1(3):385–401.10.1177/014662167700100306

Rosenthal, R.; Rosnow, RL. Essentials of behavioral research: Methods and data analysis. Vol. 2. New York, NY: McGraw-Hill; 1991.

Rosmarin DH, Pargament KI, Pirutinsky S, Mahoney A. A randomized controlled evaluation of a spiritually integrated treatment for subclinical anxiety in the Jewish community, delivered via the Internet. Journal of Anxiety Disorders. 2010; 24(7):799–808.10.1016/j.janxdis.2010.05.014 [PubMed: 20591614]

Ross K, Handal PJ, Clark EM, Wal J. The relationship between religion and religious coping: Religious coping as a moderator between religion and adjustment. Journal of Religion & Health. 2009; 48(4):454–467.10.1007/s10943-008-9199-5 [PubMed: 19890721]

Salunke BP, Umathe SN, Chavan JG. Effect of electromagnetic radiations on anxiety related behavior: A review. Journal of Biomedical and Pharmaceutical Research. 2013; 2(1):36–40.

Shaw B, Han J, Kim E, Gustafson D, Hawkins R, Cleary J, et al. Lumpkins C. Effects of prayer and religious expression within computer support groups on women with breast cancer. Psycho-Oncology. 2007; 16(7):676–687. [PubMed: 17131348]

Solomon, S.; Greenberg, J.; Pyszczynski, T. A terror management theory of behavior: The psychological functions of self-esteem and cultural worldviews. In: Zanna, MP., editor. Advances in experimental social psychology. Vol. 24. San Diego, CA: Academic Press; 1991. p. 93-159.

Spilka, B.; Hood, RW., Jr; Gorsuch, RL. The psychology of religion: An empirical approach. Upper Saddle River, NJ: Prentice Hall; 1985.

Stoppa TM, Lefkowitz ES. Longitudinal changes in religiosity among emerging adult college students. Journal of Research on Adolescence. 2010; 20(1):23–38. [PubMed: 20209118]

Tucker JS, Winkelman DK, Katz JN, Bermas BL. Ambivalence over emotional expression and psychological well-being among rheumatoid arthritis patients and their spouses. Journal of Applied Social Psychology. 1999; 29(2):271–290.

van Middendorp H, Geenen R, Sorbi MJ, Hox JJ, Vingerhoets AJJM, van Doornen LJP, Bijlsma JWJ. Gender differences in emotion regulation and relationships with perceived health in patients with rheumatoid arthritis. Women & Health. 2005; 42(1):75–97.10.1300/J013v42n01_05 [PubMed: 16418123]

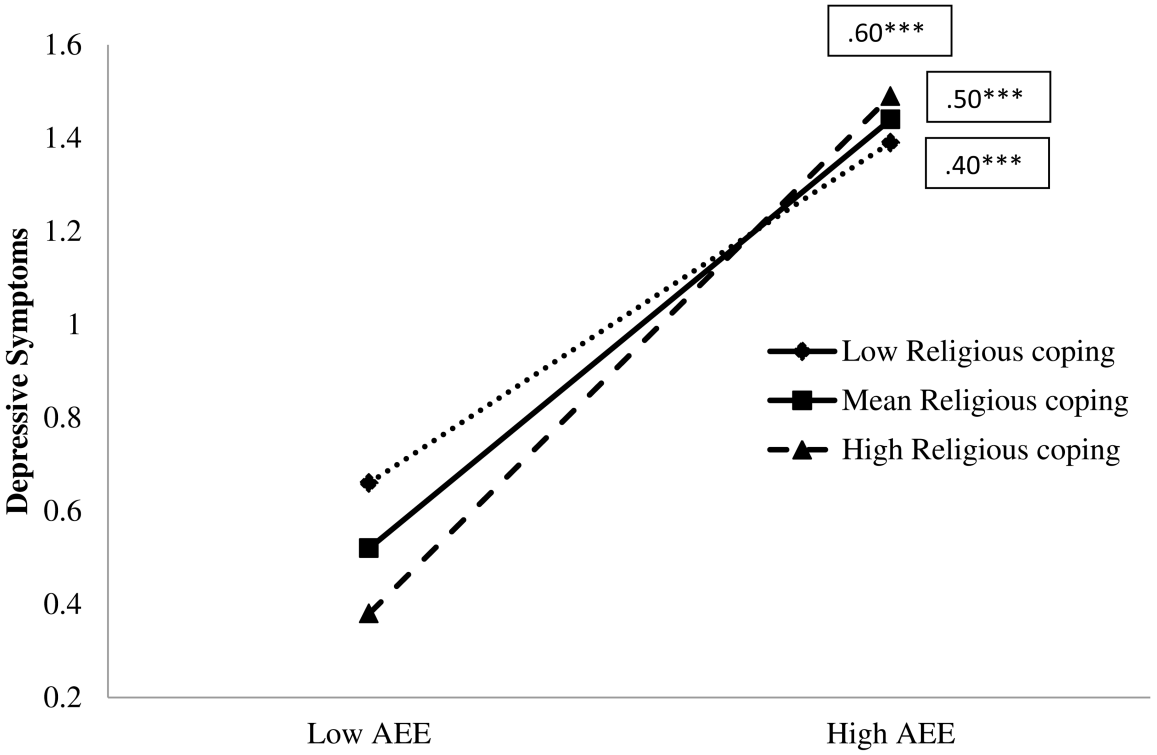

Figure 1.

AEE is associated with increased depressive symptoms, and this appears to be stronger among those who are higher in religious coping.

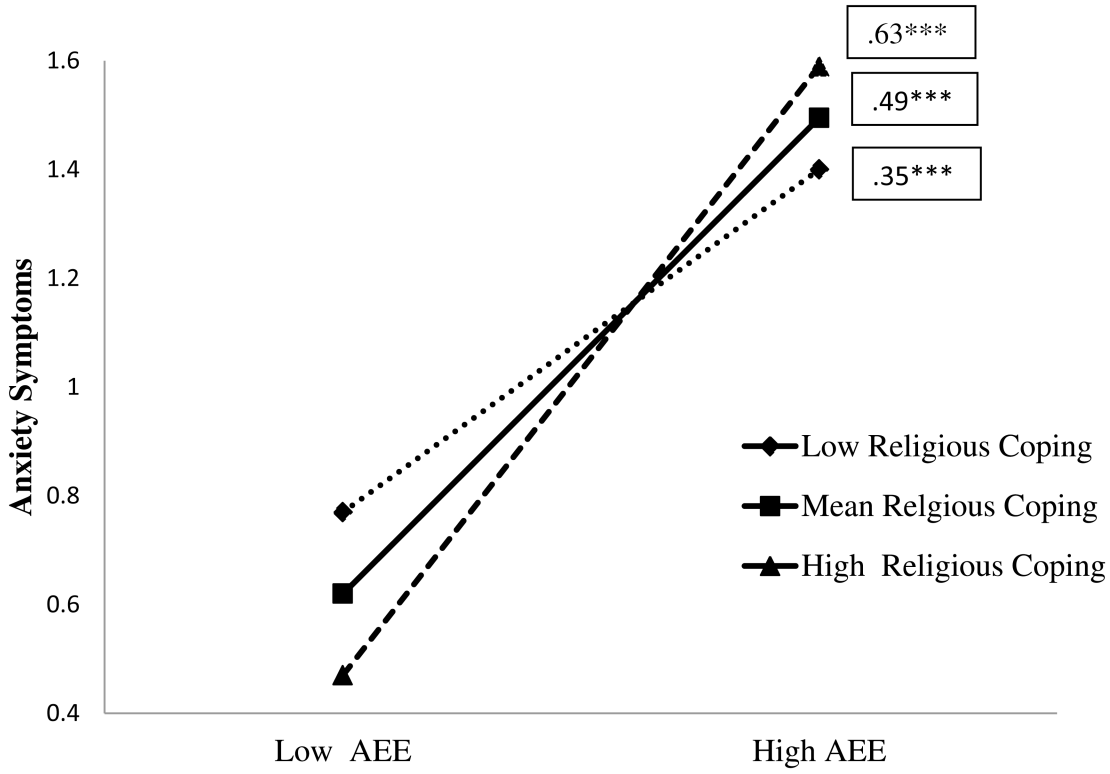

Figure 2.
AEE is associated with increased anxiety symptoms, and this appears to be stronger among those who are also higher in religious coping.

Table 1

Means, Standard Deviations, and Correlations among Variables

	1.	2.	3.	4.	5.
1. Anxiety	--				
2. Depressive Symptoms	.771***	--			
3. AEE	.485***	.501***	--		
4. Religious Coping	-.012	-.032	.031	--	
5. Gender	-.03	-.01	-.01	-.10	--
Mean	1.07	1.00	2.75	11.04	.15
Standard Deviation	.93	.93	.85	4.21	.36
Possible and Actual Range	0 - 4	0 - 4	1 - 5	4 - 16	

Note. N= 346

*** $p < .001$. Gender was dummy coded with Females =0, Males =1.

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Table 2

Hierarchical regression analysis for variables predicting Depressive Symptoms and Anxiety Symptoms from AEE and Religious Coping (RC) after controlling for gender

		Predictor	b	SE b	B	*d*
Depressive Symptoms	Step 1	GENDER	.02	.12	.01	.01
		AEE	.54	.05	.50***	1.17
		RC	-.01	.01	-.05	-.11
	Step 2	AEE * RC	.03	.01	.10*	.24
Anxiety Symptoms	Step 1	GENDER	.08	.11	-.03	.01
		AEE	.51	.05	.49***	1.16
		RC	-.01	.01	-.03	-.11
	Step 2	AEE * RC	.03	.01	.14**	.24

Note. N = 346

*** $p < .001$.

** $p < .01$.

* $p < .05$.

Gender was dummy coded with Females =0, Males =1.

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