Investigation into the Relationship Between Religiosity and Emotional Regulation

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Abstract

This paper is an investigation into a possible relationship between religiosity and emotional regulation among college-aged adults. Previous research by Vishkin et al., (2019) reported a relationship between religiosity and emotional regulation among Christian, Muslim, and Jewish participants in the US, Israel, and Turkey. Vishkin et al., (2019) applied several measures to assess specific aspects of emotional regulation while applying and a 10-item scale known as the Religious Commitment Inventory (RCI) to measure religiosity. All Israeli participants were Jewish, all Turkish participants were Muslim, and all Christian participants were American. While Vishkin et al., (2019) concluded a there was a relationship between religiosity and emotional regulation there was variation among specific factors of emotional regulation in relation to religion type and nationality. This creates concerns regarding the generalizability of these results to all types of religiosity and populations. I sought to correct this by implementing a different measure for religiosity that more extensively encompasses religiosity to see if the results by Vishkin et al., (2019) could be translated to a Western, college-aged sample. I also wanted to test a condensed measure of emotional regulation that could be more applicable to college-aged adults. I recruited 22 participants through an open-access survey. The survey consisted of 16 questions from the Centrality of Religiosity Scale (CRS) and 12 questions from 10 different assessments each measuring a different aspect of emotional regulation (see appendix for details). Reappraisal, social support, and acceptance are all different aspects of emotional regulation but were derived from the Coping Orientation to Problems Experiences (COPE) assessment developed by Carver et al., (1989). All assessments used in this paper were used by Vishkin et al., (2019) who derived them from past research (see appendix for specific assessments and sources) Participants answered all questions on a 5, 6, or 8-point Likert scale (depending on the question). I found that there is no significant correlation between religiosity and emotional regulation. This does not support previous literature reporting a relationship. My findings might be indicative of past research not being representative of college-aged adults, possibly due to religions being represented in less definable ways among this population (Koeing, 2015).

Introduction

Religiosity is difficult to define but can be regarded as one's affinity and adoption of religious or spiritual beliefs, principles, and activities. Past literature has reported a link between increased religiosity and several positive life outcomes including lower risk for depression, anxiety, and eating disorders (Koeing, 2012; Richards Berrett, Hardman, and Eggett, 2006). Increased religiosity is also thought to be associated with increased life satisfaction and greater perceived meaning in life (Stegger and Frazier, 2005; Hackney and Sanders, 2003). While these findings present the idea that religiosity is associated with having different types of emotions, they are not indicative of religiosity being associated with differences in how one regulates their emotions. It is possible that religiosity could be associated with different emotions while having no relationship with emotional regulation.

Emotional regulation can be defined as cognitive processes that have a role in evaluating, monitoring, and changing emotions and emotional reactions (R.A. Tompson, 1994). This definition implies an ability, or lack thereof, to change emotions or thoughts in reaction to environmental changes. Emotional regulation is also characterized by variation in the intensity, onset, and duration of one's emotions. Emotional regulation can fluctuate throughout an individual's life, and it is possible that certain groups or individuals are more likely to have greater emotional regulation. This difference could possibly be seen through investigating religion and religious practices. Increased levels of emotional regulation have been associated with positive life outcomes and cognitive strategies, such as positive affect (Brondino, 2020).

Increased religiosity has been linked to increased self-regulation (McCullough, 2009). However, McCullough (2009) did not conclude if there is a direct relationship between religiosity and emotional regulation, a subtype of self-regulation. McCullough and Boker (2007) defined self-regulation as the cognitive processes one uses to analyze information about their present state to then change their future state. McCullough (2009) evaluated self-regulation and religion based on the following 6 propositions: (a) that religion can promote self-control; (b) that religion influences how goals are selected, pursued, and organized; (c) that religion facilitates self-monitoring; (d) that religion fosters the development of self-regulatory strength; (e) that religion prescribes and fosters proficiency in a suite of self-regulatory behaviors; and (f) that some of religion's influences on health, well-being, and social behavior may result from religion's influences on self-control and self-regulation. McCullough (2009) concluded there were significant relationships between religiosity and propositions *a, b, d, e, and f.* Results for *c*

are mixed. They also found relationships between religion and agreeableness and consciousness. These findings provide a strong foundation for investigations into emotional regulation. The findings regarding agreeableness and consciousness are particularly important as they are more related to social environments that can elicit specific emotions. Displaying adaptive behaviors in social environments is highly dependent on emotional regulation (Shuman, 2013). Therefore, these traits suggest a relationship between emotional regulation and religion.

There is already existing research on a possible connection between emotional regulation and religiosity. The 2019 paper by Vishkin et al., investigates this connection in relation to specific processes such as monitoring and evaluation. Vishkin et al., (2019) propose that a connection between the two may be indicative of an adaptive change. For example, exhibiting aggression was likely once crucial to survival and consolidation of resources but is increasingly less important in many societies. In fact, aggressive behavior often results in negative outcomes such as referral to psychiatric clinics (Connor et al., 2019). It is possible that religion serves as an important societal tool to help mitigate the maladaptive effects of aggression.

Vishkin et al., (2019) also theorized that a possible positive connection between religiosity and emotional regulation may be due to religions valuing the concept of having agency over one's emotional state. Vishkin et al., (2019) specifically investigated emotional regulation based on eight emotional regulation strategies derived from Naragon-Gainey, McMahon, and Chacko (2017). These strategies are as follows: cognitive reappraisal, acceptance, nonjudgmental mindfulness, rumination, expressive suppression, distraction, experiential avoidance, and behavioral avoidance. Vishkin et al., (2019) studied if these eight strategies, in addition to assessing social support, were associated with religiosity. They hypothesized that there would be a positive correlation between religiosity and social support, cognitive reappraisal, and acceptance. They also hypothesized negative associations between religiosity and the nonjudgmental aspect of mindfulness, and rumination and hypothesized that associations between religiosity and emotional regulation would be consistent across samples. Vishkin et al., (2019) did not have directional predictions for relationships between religiosity and expressive suppression, distraction, experiential avoidance, and behavioral avoidance. Given these predictions, they hypothesized that religiosity is related to greater prohedonic motives, motivation to attain positive affect, and greater self-efficacy in changing one's emotions.

Vishkin et al., (2019) recruited participants from the United States, Israel, and Turkey. Each population was recruited based on one of the three Abrahamic religions; American

participants were Catholic, Israeli participants were Jewish, and Turkish participants were Muslim. Age, gender, and socioeconomic status were all controlled for within the samples. Ethnicity was partially controlled for in American participants by prescreening to exclude Hispanic individuals. This was because the culture of Hispanic American Catholics typically differs from other Catholic groups in the country. American and Turkish samples were measured based on a 5-point scale, with 5 being religion is the center of their life, and 1 being they are not being religious. The Israeli samples were assessed on a 4-point scale from being "ultra-orthodox" to being secular.

Vishkin et al., (2019) measured religiosity based on a 10-item scale known as the Religious Commitment Inventory (RCI). Each participant had a score by averaging all items. Vishkin et al., (2019) measured emotional regulation based on 12 factors for emotional regulation. They are listed as follows: prohedonic motives, beliefs about controllability of emotions, self-efficacy in emotion regulation, social support, reappraisal, acceptance, non-judgementalism, rumination, expressive suppression, distraction, experiential avoidance, and behavioral avoidance. Each factor was measured with one or two questionnaires developed from previous literature. All questionnaires were administered via online software. Half of the participants completed the questionnaires in one order while the other half completed them in the opposite order. The questionnaires ranged from 4-8 questions in length. Invariance(s) for each variable was calculated. Vishkin et al., (2019) then ran correlational and regression analyses for all variables. Gender and socioeconomic status were included as covariates due to variation between samples.

Vishkin et al., (2019) found that religiosity was positively associated with the following factors of emotional regulation: prohedonic motives, beliefs about controllability and self-efficacy in emotional regulation, instrumental and emotional social support, reappraisal, acceptance, and expressive suppression. Religiosity was negatively associated with the following factors: rumination and non-judgementalism. Religiosity was not associated with experiential avoidance or behavioral avoidance. Interestingly religiosity was both negatively and positively correlated with distraction depending on the questionnaire analyzed. This could be due to low reliability of the Coping Orientation to Problems Experiences (COPE) scale derived from Carver et al., (1989). Neither measure assessing distraction varied by sample or dimension of religiosity.

There was some variation in the results for self-efficacy, acceptance, expressive suppression, experiential avoidance, and behavioral avoidance. This variation occurred either in

dimension of religiosity (intrapersonal vs. interpersonal religiosity) or between samples. There was a significant relationship for self-efficacy in American and Israeli samples but not for the Turkish sample. The relationship did not vary by dimension of religiosity. The association across samples was still consistent with the hypothesis by Vishkin et al., (2019). For acceptance, only American participants did not have a significant relationship. The association across samples was consistent with their hypotheses. There was no variation by dimension of religiosity. For expressive suppression, the relationship was only significant in the Turkish sample. Expressive suppression was also associated with intrapersonal, but not interpersonal, religiosity. The relationship for experiential avoidance varied only by dimension of religiosity. Experiential avoidance was negatively associated with interpersonal, but not intrapersonal, religiosity. Lastly, behavioral avoidance was negatively associated in the American sample but was not significant in the Israeli or Turkish sample. Across samples, behavioral avoidance was negatively associated with interpersonal, but not intrapersonal, religiosity. While there is variation within the data, much of this variation aligns with the hypotheses posited by Vishkin et al., (2019). Nevertheless, results pertaining to these specific results should be taken into question. Overall, Vishkin et al., (2019) found that religiosity was positively correlated with adaptive patterns and strategies of emotional regulation that have been reported to have positive outcomes while negatively correlated, or not correlated, with maladaptive emotional regulation strategies.

These findings provide an important foundation for my investigation as they generally support my hypothesis. Throughout this paper, I refer to college-aged adults, meaning adults who are attending college during late adolescence and early adulthood. This does not necessarily refer to all people within this age range. I wanted to see if the results by Vishkin et al., (2019) could be found in a novel sample of college-aged adults while using a condensed version of the emotional regulation questionnaires applied. Doing so, both increases the generalizability of the results by Vishkin et al., (2019) and investigates if a smaller questionnaire can infer similar results. If a smaller questionnaire can be reliably used, it could be far easier and more appropriate to test certain samples. This is particularly the case for college-aged adults, who may be more reluctant to volunteer large amounts of time and effort given their schedules. This type of condensed questionnaire is also important to the study design given the lack of compensation or incentive provided to participants. Additionally, college is often regarded as a period of rapid change and great stress (Mofatteh, 2020). If there are ways to mitigate the emotional effects of college, these factors should be investigated. I also wanted to see if a condensed assessment of emotional

regulation could be paired with a more extensive assessment of religiosity not used by Vishkin et al., (2019). Many younger adults describe spirituality as being an important aspect of their lives without subscribing to a particular religion (Koeing, 2015). Using a more extensive assessment of religion could possibly reveal associations that would not be present by only measuring established types of religious affiliations.

Huber and Huber (2012) conducted a review and analysis of the validity and structure of a questionnaire known as the Centrality of Religiosity Scale (CRS). The CRS is a widely used scale in many fields including psychology, sociology, and theology. While the scale has been widely used Huber and Huber present problems with the scale such as its bias towards Western Christian assessment while lacking questions appropriate for Hindus, Buddhists, and Muslims. They present different versions and recommendations for the scale including three different versions varying in length. The scale is indented to measure religion based on five dimensions: public practice, private practice, religious experience, ideology, and intellect. These five dimensions are meant to encompass all of one's potential religious experiences and beliefs.

Huber and Huber also provide a justification or rationale for the scale and include examples of how to score the questions on a 5-point Likert scale. The CRS is primarily a scale measuring religiosity in relation to personality. This is important to note given the complex and varied concept of personalities. The CRS has been important in past research because the broad applicability of the scale has encouraged many researchers to use the scale. This then encourages future research to apply the scale because it has been previously validated with their study population. In my study, the CRS was uniquely applicable because the revisions made by Huber and Huber encompass more religions and abstract concepts of spirituality or religiosity. This broad approach to religion is especially important given my participant population. It has been reported that college-aged adults are less likely to subscribe to easily definable religions or religious affiliations but rather have more personalized and abstract concepts of religiosity (Koeing, 2015). Therefore, the revised version presented by Huber and Huber is well suited for my study given that its 5 dimensions can be used to measure many aspects of religiosity and have been well validated.

This paper investigates a possible relationship between emotional regulation and religiosity. Understanding possible interactions can give us insight into why emotional regulation is related to positive outcomes and why religion and spirituality offer the tools necessary to have such regulation. We can also further understand the specific qualities of religions that provide

this ability, allowing us to possibly implement similar modalities into non-religious practices and settings. This can also allow us to effectively study the psychological and physiological effects that such practices and thoughts have. In this study, I measured religiosity and emotional regulation in a college-aged sample and assessed if there were any significant associations between the two variables. I measured religiosity using the 15-item version of the Centrality of Religiosity Scale. I assessed emotional regulation using 12 questions each measuring a different factor of emotional regulation. It is important to note that using 12 questions to measure emotional regulation that were each from a different survey is not a valid design to measure emotional regulation. I sent out one survey that measured both variables for a total of 28 questions. I hypothesize that there will be a significant positive correlation between religiosity and emotional regulation.

Methods

Participants

I recruited a total of 22 college-aged participants from Northeastern University and other American universities. I did not have any control or exclusion criteria and can be reasonably confident that participants were undergraduates and the typical age for undergraduate studies. This is because I directly distributed the survey only among this population. I excluded 5 participants for only partial completion of the study. Therefore, I had a total of 17 participants for analysis. I did not compensate any participants for completing the survey.

Materials

There are 3 versions of the CRS that are 5, 10, or 15 items in length respectively. My study applies the 15-item (in addition to 2 items from the extended section) version of the scale. I excluded one filler question from the 15-item survey due to limitations in question number in the software I used. Therefore, I had 16 questions measuring religiosity. I had 12 questions measuring emotional regulation that were derived from 10 separate questionnaires and were all used by Vishkin et al., (2019). Each question measured a different aspect of emotional regulation (see appendix for details).

I decided to use the 15-item version of the CRS because I wanted to gain a greater understanding of religiosity when compared to shorter versions and compared to the 10-item assessment used by Vishkin et al., (2019). I also applied some of the Likert scale structures proposed by Huber and Huber in my study design. However, not all of my religiosity questions used the structure of Huber and Huber. Any question presented in any portion of the survey that

had a Likert scale of 8 or 5 points, or values, is derived from Huber and Huber. Any questions that are 8 points in length used the same language and phrasing as presented by Huber and Huber. The points were counted in order from top to bottom as presented in the survey. Therefore, the first option for each question had a value of 1, the second option had a value of 2, and so on. See the appendix and results sections for details on question structure.

The survey consisted of 28 questions (16 for religiosity and 12 for emotional regulation). The portion of the survey pertaining to emotional regulation has been constructed specifically for this study. While the questions and scales are from past research the questions asked have never been presented in the manner given in the survey. Vishkin et al., (2019) used the same questions but also used the entirety of each scale and administered them in a different order.

The scales used to measure emotional regulation along with the specific factor of emotional regulation each scale measured is listed as follows: Trait Meta-Mood Scale (Salovey et al., 1995) (Prohedonic motives), 4-item scale derived from Tamir (2007) (Beliefs about controllability of emotions), scale used by Castella (2013) (self-efficacy in emotional regulation), Coping Orientation to Problems Experiences scale (Carver et al., 1989) (emotional social support, reappraisal, and acceptance), Five-Factor Mindfulness Questionnaire (Bohlmeijer et al., 2011) (non-judgmentalism), Rumination Reflection Questionnaire (Trapnell and Campbell, 1999) (rumination), item expressive suppression subscale of the ERQ (Gross and John, 2003) (expressive suppression), Thought Control Questionnaire (Wells and Davies, 1994) (distraction), 7-item Acceptance and Action Questionnaire-II (Bond et al., 2011) (experiential avoidance), Cognitive-Behavioral Avoidance Scale (Ottenbreit and Dobson, 2004) (behavioral avoidance). See the appendix for specific questions asked from each scale.

Questions were structured in one or two sentences. Either a question was directly asked, or they were asked to what degree they agree with a certain statement. The questions were presented on a computer screen via the survey software Qualtrics. For example, participants were asked the following sentence to measure emotional regulation (specifically for beliefs about controllability of emotions): *To what extent do you agree with this statement? "Everyone can learn to control their emotions"*. Participants were also asked the following question to measure experiential avoidance: *Are you ever afraid of your feelings?* I examined the following factors of emotional regulation: prohedonic motives, beliefs about controllability of emotions, self-efficacy in emotion regulation, social support, reappraisal, acceptance, non-judgmentalism, rumination, expressive suppression, distraction, experiential avoidance, and behavioral avoidance. Questions

pertaining to religiosity can be found in Figure 1. The two additional questions to assess religiosity are labeled as 04b and 05b in the figure. All questions were asked on a Likert scale. There was relative consistency in question structure, with all questions being 5, 6, or 8 points. Here, points are referring the number of options the participant has to select for a given question. For example, if a Likert scale only had two options, *always and never,* it would have 2 points. The sentence presented in each point was also generally consistent across questions that had the same number of points. For instance, all questions that had an 8-point Likert were consistent in structure for all questions. See the Appendix for examples of Likert scale structure.

Figure 1

A diagram of the centrality of religiosity scale (CRS) as presented by Huber and Huber (2012).

Dimension	Items for both the basic and interreligious versions	Basic CRS versions			Additional Items for the interreligious versions only	Interreligious CRSi versions		
Intellect	01: How often do you think about religious issues?	CRS-5	CRS-10	CRS-15		CRSi-7	CRSi-14	CRSi-20
Ideology	02: To what extent do you believe that God or something divine exists?							
Public practice	03: How often do you take part in religious services?							
Private practice	04: How often do you pray?				04b: How often do you meditate?			
Experience	05: How often do you experience situations in which you have the feeling that God or something divine intervenes in your life?				05b: How often do you experience situations in which you have the feeling that you are in one with all?			
Intellect	06: How interested are you in learning more about religious topics?							
Ideology	07: To what extend do you believe in an afterlife—e.g. immortality of the soul, resurrection of the dead or reincarnation?							
Public practice	08: How important is to take part in religious services?							
Private practice	09: How important is personal prayer for you?				09b: How important is meditation for you?			
Experience	10: How often do you experience situations in which you have the feeling that God or something divine wants to communicate or to reveal something to you?				10b: How often do you experience situations in which you have the feeling that you are touched by a divine power?			
Intellect	11: How often do you keep yourself informed about religious questions through radio, television, internet, newspapers, or books?							
Ideology	12: In your opinion, how probable is it that a higher power really exists							
Public practice	13: How important is it for you to be connected to a religious community?							
Private practice	14: How often do you pray spontaneously when inspired by daily situations?				14b: How often do you try to connect to the divine spontaneously when inspired by daily situations?			
Experience	15: How often do you experience situations in which you have the feeling that God or something divine is present?							

Note: Each question measures an aspect of religiosity based on the 5 foundations for religiosity (private practice, public practice, intellect, ideology, and experience). Questions are asked using a Likert scale.

Design

My two variables are religiosity and emotional regulation. As previously stated, religiosity can be regarded as one's affinity and adoption of religious or spiritual beliefs, principles, and activities. I measured religiosity as an aspect of one's personality using 16 questions derived from the CRS. Emotional regulation was measured using 12 questions each measuring a different factor of emotional regulation.

Procedure

After the survey was developed it was published in Qualtrics. The survey was posted as an open version, meaning anyone with the appropriate link could access it and take it as many times as they wished. Responses record the IP addresses from which it originated. No participants took the survey more than once (from the same address). The survey link was sent out to groups and peers at Northeastern University, including a Christian student group on campus. The survey was also sent to fellow students in other American universities. The survey was open for 3 weeks.

Each trial consisted of an initial section detailing the purpose, instructions, and structure of the survey. This section also detailed exclusion criteria (must be at least 18 years of age) and emphasized the voluntary nature of participation. A section was then presented in which the participants either consented or did not consent based on what box they selected. There were no unusual risks in this study. Participants then completed the 16 religiosity questions in the same order as seen in Figure 1. Participants were then tasked with completing the 12 emotional regulation questions. The factors assigned to each emotional regulation question were presented in the following order. Prohedonic motives, beliefs about controllability of emotions, self-efficacy in emotion regulation, social support, reappraisal, acceptance, non-judgementalism, rumination, expressive suppression, distraction, experiential avoidance, and behavioral avoidance. All questions were presented in the same order for each trial. The survey took approximately 10 minutes to complete. Responses and data were automatically recorded in Qualtrics software.

Results

The means were calculated by participant number, not by the mean score of each measure The mean values were the individual participant scores. Therefore, participants had two overall scores (one for religiosity and one for emotional regulation). The participant scores and participant numbers (indicates which participant is which) were then put in a separate Excel file and exported to SPSS software. The two variables entered in the analyses were the overall participant scores for religiosity and the overall participant scores for emotional regulation. Using these variables, Pearson's correlational tests were conducted. There was a positive relationship between the two variables, but the relationship was not significant ($r(15) = .026$, $p = .920$)).

Discussion

In this paper, I sought to investigate a possible relationship between religiosity and emotional regulation. I hypothesized that there would be a significant positive correlation between religiosity and emotional regulation. There has been previous literature that has reported an association between the two (Vishkin et al., 2019; McCullough, 2009). However, my results showed no significant correlation between religiosity and emotional regulation. I particularly wanted to see if the results by Vishkin et al., (2019) could be generalized to a college-aged sample.

Given the stress many typical college-aged students undergo, understanding the potential relationship between religiosity and emotional regulation could provide valuable insight into how to mitigate college-related stress. This remains true even if one is not particularly religious, as many younger populations are not (Pew Research Center, 2018). Finding commonalities in religious and spiritual practices that can be translated to non-religious settings could provide applicable intervention and mitigation. This is partly why I used a different religious questionnaire than Vishkin et al., (2019). Using a more extensive questionnaire that measures aspects of spirituality and the foundational aspects of religion both increases the validity of the tests and possibly allows one to identify beneficial practices that are part of many religions but not necessarily contingent on any religion. Such practices could include having a strong support system, a cohesive community that frequently meets, celebrating religious, cultural, or social events, and discussing one's beliefs and perspectives.

I also wanted to see if a more condensed assessment of emotional regulation could be applied than what was used by Vishkin et al., (2019). This was based on the idea that a more condensed assessment could be a more realistic approach when measuring college-aged adults, possibly allowing more participation and therefore more data sets. This approach was also due to the lack of incentives given to participants to complete the survey. There were concerns that if the survey was too long it would hinder participation.

There are several implications of these findings depending on how one views the validity of this study. Excluding possible limitations, these results suggest that the findings by Vishkin et al., (2019) cannot be generalized to college-aged populations. It is important to note that these results do not suggest that college-aged adults have poor emotional regulation. If there is any causal effect on emotional regulation, it is possible that this population uses different methods to gain the cognitive processes associated with greater emotional regulation. However, this study finds no causal or correlational relationship between the two variables. Given that religiosity and emotional regulation are both highly contextual and difficult to define, perhaps a relationship only arises when applying certain definitions.

These results could also suggest problems with my study design. As stated, using 12 questions to measure emotional regulation that were each from a different survey is not a valid design to measure emotional regulation. Additionally, to the best of my knowledge, no previous literature had paired the CRS with any of the questions we used to measure emotional regulation. The CRS also measures religiosity partially based on personality. This includes asking questions such as how important prayer is to them. Given the varied and complex concepts of personality, it is possible that participants frequently partook in religious activities or had religious beliefs but did not see them as personally important to themselves.

It is also very possible that my relatively small sample size significantly affected my ability to derive any conclusions from the analysis. A large sample size is especially important since my study investigates rather broad concepts. It is possible that results from the Christian student group affected the generalizability of the results among college-aged adults. I can also not be sure that my participants were college-aged adults, or that they were current undergraduate students, as the survey was open to anyone with the link. The same user could have also taken the survey more than once but from a different IP address. Another limitation is the limited analysis as I only ran correlational tests. Improved statistical analysis could analyze the interactions between each item on the survey. Regression analysis could achieve this.

Randomizing the question order could also be a good improvement, decreasing the chance of any confounding variables.

Vishkin et al., (2019) reported varied findings on the relationship(s) between religiosity and distraction, self-efficacy, acceptance, expressive suppression, experiential avoidance, and behavioral avoidance. Future studies of a similar design to my study could investigate these specific factors of emotional regulation in relation to religiosity. This would allow one to maintain a relatively small survey or assessment while still using valid questionnaires specific to each factor. Future studies should specifically focus on distraction given that Vishkin et al., (2019) reported both negative and positive correlations. Alternativity, adapting an assessment of emotional regulation that maintains a limited item size could also be applied within my study. However, most tests for emotional regulation are too extensive for my study given design limitations. Future investigations could also investigate if there is a distinctive difference between college-aged adults and other populations in relation to any religiosity-emotional regulation relationship. If there is a difference, there should be investigations into whether this is due to age-related or setting-related (college) variables. This study aimed to only sample college-aged adults who were attending college.

In this paper, I examined a potential relationship between religiosity and emotional regulation and found no evidence of a relationship between the two. Additionally, my results indicate no directionality for any possible relationship. This is in contrast to previous research that has reported significant positive correlations between the two (Vishkin et al., 2019; McCullough, 2009). I administered an online survey to collect data and ran a Pearson's correlation. The justification for this study was to investigate if this reported relationship could be found in an undergraduate population that is of the typical age for college, to test if a new questionnaire format was valid given the study parameters and population in mind, and to further validate the findings by Vishkin et al., (2019). I also sought to translate the known benefits of religion in a college-aged sample to begin guiding interventions into mitigating heightened stress and anxiety levels among a population that is less religious than older populations.

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Appendix

Questions measuring emotional regulation:

1. To what extent does this statement align with yourself? "No matter how badly I feel, I try to think about pleasant things." Measures Prohedonic motives. Derived from Trait Meta-Mood Scale (TMMS) (Salovey et al., 1995).
2. To what extent do you agree with this statement? "Everyone can learn to control their emotions." Measures beliefs about controllability of emotions. 4-item scale derived from Tamir (2007)
3. To what extent do you agree with this statement? "If I want to, I can change the emotions I have." Measures self-efficacy in emotional regulation. Derived from scale used by Castella (2013).
4. How often do you discuss your feelings or emotions with someone? Measures emotional social support. Derived from Coping Orientation to Problems Experiences (COPE) scale from Carver et al., (1989)
5. To what extent does this statement align with yourself? "I look for something good in what is happening." Measures reappraisal. Derived from COPE scale from Carver et al., (1989)
6. To what extent does this statement align with yourself? "I accept that this has happened and that it can't be changed." Measures acceptance. Derived from COPE scale from Carver et al., (1989).
7. How often do you tell yourself that you should not be feeling the way that you are feeling? Measures non judgmentalism. Derived from the Five-Factor Mindfulness Questionnaire (FFMQ) from Bohlmeijer et al., (2011).
8. Do you ever find it hard to "shut off" thoughts about yourself? Measures rumination. Derived from the Rumination Reflection Questionnaire from Trapnell and Campbell (1999).

9. When you are feeling negative emotions do you make sure not to express them? Measures expressive suppression. Derived from the 4-item expressive suppression subscale of the ERQ scale from Gross and John (2003).
10. When you are feeling negative emotions do you do anything to distract yourself? Measures distraction. Derived from the 6-item Thought Control Questionnaire (TCQ) from Wells and Davies (1994).
11. Are you ever afraid of your feelings? Measures experiential avoidance. Derived from the 7-item Acceptance and Action Questionnaire-II (AAQ-II) from Bond et al., (2011).
12. Do you ever avoid attending social activities? Measures behavioral avoidance. Derived from the 8-item behavioral social subscale of the Cognitive-Behavioral Avoidance Scale (CBAS) from Ottenbreit and Dobson (2004).

Note: The other measure for distraction listed for Vishkin et al., (2019) but not measured in this study was the COPE scale derived from Carver et al., (1989).

- ○ Several times a day
- ○ Once a day
- ○ Several times a week
- ○ Once a week
- ○ One or three times a month
- ○ A few times a year
- ○ Less often
- ○ Never

8-point Likert Scale Developed by Huber and Huber.

- ○ Completely aligns
- ○ Mostly aligns
- ○ Somewhat aligns
- ○ Mostly disaligns
- ○ Somewhat disaligns
- ○ Completely disaligns

Example of 6-point structure developed by Huber and Huber.

- ○ Not at all important
- ○ Slightly important
- ○ Moderately important
- ○ Very important
- ○ Extremely important

Example of a 5-point Likert scale applied