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The Impact of Spirituality and Stress on the Health of Emerging Adults

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Introduction

Emerging adulthood is a period of life characterized by identity exploration and change as young adults examine myriad possibilities in love, work, and worldviews (Arnett, 2000). This stage conveys a period of time in which young adults explore their identities by finding purpose and personal meaning as they balance various financial, academic, and career pressures (Arnett, 2000). Current emerging adults, often referred to as the “millennial” generation, are experiencing unique social and economic pressures. For example, the competitive job market now expects prospective employees to obtain both a four-year degree and experience in their field of interest in order to be considered a qualified candidate for jobs previously viewed as entry-level positions. Emerging adults now face the pressure of balancing jobs, internships, and volunteer positions on top of full course loads.

Furthermore, the cost of tuition has steadily increased and added to the financial weight of pursuing a four-year degree. These various pressures have brought to light the need to examine the impact of stress and the ability to cope with stress in the college environment, especially when emerging adulthood is considered a crucial period of development for establishing healthy habits and lifestyle patterns (Arnett, 2000; Li & Lindsey, 2013).

Definitions

Stress is defined as a physiological and emotional response to the environment or events that an organism experiences, either in the presence of or by recalling a psychological or physical stressor (Rabkin & Struening, 1976). In the current college environment, emerging adults are experiencing higher than average levels of stress, yet lack access to resources to properly cope with these experiences (Brougham, Zail, Mendozze, & Miller, 2009; Wichianson, Bughi, Unger, Spruijt-Metz, & Nguyen-Rodriguez, 2009). Although stress is a healthy way for our bodies to adapt to specific events in our lives, frequent chronic psychological stressors are causing physical and mental health problems in emerging adults (Beiter et al., 2015; Zaleski, Levey-Thors, & Schiaffino, 1998).

Coping mechanisms have become well understood through previous research and are described as the behavioral adaptation to managing stressors (Brougham et al., 2009). These behavioral adaptations are a part of development and are learned from modeling, social expectations, and personal experiences (Brougham et al., 2009). Research indicates that coping mechanisms can directly impact physical and mental health. When under stress, people revert back to coping mechanisms that have been learned from previous experiences to best deal with their stressors (Brougham et al., 2009). Coping strategies are either positive or negative, which describes how the behavior reduces stress (Li & Lindsey, 2013).

Positive coping mechanisms are behaviors that decrease stress by breaking the stressor into manageable pieces (planning, social support, and exercise) whereas negative coping mechanisms are behaviors that avoid or dismiss the stressor (denial, overeating, and procrastination) (Carver, 1997). It has been shown in several studies that students who experience high levels of stress are more prone to consume junk food, less likely to exercise, and inclined to sleep less than their peers who had lower levels of stress (Brougham et al., 2009). Additionally, recent studies have indicated that spirituality may be an effective positive coping behavior in response to stress and have also associated spirituality with higher life satisfaction (Anand, Jones, & Gill, 2015; Nagel & Sgoutas-Emch, 2007; Zullig, Ward, & Horn, 2006).

Current literature often distinguishes between spirituality and religiosity. However, the definitions of spirituality vary. It should be noted that while spirituality and religiosity are often intertwined, they do not necessarily co-occur; religiosity is not always indicative of spirituality (Koenig, 2010; Zullig et al., 2006). Religiosity, generally, refers to participation in an organized belief system with defined rituals and practices and a central place of worship. Spirituality, meanwhile, has been defined as connectedness to self, the environment, a higher power, or a unifying force that provides a sense of meaning or purpose in life (Anand, et al., 2015; Ellison, 1991; Koenig, 2010; Nagel & Sgoutas-Emch, 2007; Zullig et al., 2006).

In all of the literature, spirituality has been positively correlated with life satisfaction and has also appeared as a potential mediator for stress, well-being, and positive health behaviors (Anand, et al., 2015; Kim & Seidlitz, 2002; Nagel & Sgoutas-Emch, 2007; Zullig et al., 2006). However, few studies have examined these variables distinctly in the emerging adult population. A recent study conducted by Anand et al. (2015) that examined

spirituality in a sample of emerging adults from the UK yielded mixed results as it did not find a significant relationship with life satisfaction and indicated a positive relationship with positive health behaviors. Additional studies examining spirituality in relation to coping mechanisms have also supported spirituality's relationship with positive health behaviors as well as its potential role as a mediator for positive coping behaviors and coping mechanisms in response to stress. Researchers have concluded that these findings suggest spirituality could lead to students utilizing effective ways to manage stress (Anand et al., 2015; Hayman et al., 2007; Kim & Seidlitz, 2002; Zullig et al., 2006).

Current Study

Recognizing the relationship between spirituality, stress, and coping is essential for understanding the current coping behaviors of students and possible stress buffers. As emerging adults experience persistent chronic stress, they risk developing unhealthy coping mechanisms that may limit the emotional and academic potential of an individual (Brougham et al., 2009; Cohen, Kamarck, & Mermelstein, 1983; Li & Lindsey, 2013). While these studies address stressors within the emerging adult population and possible health impacts, they do not clarify possible sources of coping that may be helpful in treating the various stressors identified by emerging adults. Furthermore, few studies acknowledge how non-academic commitments, such as employment, may influence the stress levels of students and how such commitments affect coping mechanisms and health behaviors.

The current study, therefore, first examines a sample of emerging adults and the relationships between perceived stress, coping behaviors, and work status to reveal which coping tools students use to manage stress. Second, the study assesses the relationship between spirituality, stress, and coping methods as a means of bridging a specific coping behavior and stressor. We hypothesize that (1) students who are employed will report higher levels of perceived stress and utilize more positive coping mechanisms; (2) higher levels of perceived stress will utilize more negative coping behaviors; and (3) students with higher spirituality scores will demonstrate more life satisfaction and more engagement with positive coping mechanisms than students with lower spirituality scores.

Table 1 Participant Reported Racial Background

Race	Percent (%)
African American	2.2
Asian	8.8
Native American	5.5
Hispanic/Latino	7.7
Native Hawaiian or Pacific Islander	2.2
Caucasian	58.2
Multiracial	9.9
Not Reported	5.5

Methods

Participants: The pilot study used a sample of 90 emerging adults (23% male, 68% female, 2.4% non-binary) attending Seattle University which is a private, Jesuit Catholic- affiliated university. All participants were 18 to 34 years of age and completed the survey either online or via hard copy. The survey used scales and qualitative response questions.

This sample represented six racial groups (Table 1 below). Additionally, a majority of participants identified with Christian spiritual practices (Table 2 below) and the majority (35.1%) were of junior academic standing (freshman 23.1%, sophomore 11.0%, senior 30.8%). Students were also mostly part-time employed (48.4%) and worked 21 hours or less (full-time 6.6%, volunteer 7.7%, unemployed 35.2%).

Measures

Employment Status: Employment status was categorized in four ways: full-time work (21 hours or more compensated work per week), part-time (less than 21 hours of compensated work per week), volunteer (uncompensated work), and unemployed. This variable was used to capture a common time commitment students have outside of their academics that can relieve financial stress, but also recognizes that many students are committed to internships where they may or may not be financially compensated for their work. This

Table 2 Participant Reported Religious Affiliation

Religion	Percent (%)
Christian	31.9
Jewish	1.1
Roman Catholic	8.8
Mormon	1.1
Buddhist	2.2
Hindu	1.1
Agnostic	14.3
Atheist	12.1
Spiritual Not Religious	19.8
Other	5.5
Not Reported	2.2

variable was listed in the demographics section where students could self-report which category described their employment. This variable was correlated to the cumulative Perceived Stress Scale to determine a potential relationship between employment status and perceived stress.

Religiosity: Participants were also split into religious and nonreligious groups as a means of measuring religiosity as a possible confounding variable. Religious participants were defined as those who identified as one of the following: Christian, Jewish, Roman Catholic, Mormon, Buddhist, or Hindu. Nonreligious participants were defined as those who identified as either Agnostic, Atheist, Spiritual Not Religious, or other.

Perceived Stress Scale: The Perceived Stress Scale is a brief self-report to measure current life stress (Cohen et al., 1983). This measure includes 10 questions that asked about emotional well-being and how stressed the participant felt in the last month using a five-point Likert scale (1 = never to 5 = very often), where higher scores indicate a higher level of perceived stress. Sample items include: “In the last month, how often have you felt nervous or stressed?” and “In the last month, how often have you felt that things were going your way?” The value of each response is added together to calculate a score to be used in the analyses. The Cronbach’s alpha in previous studies has been 0.85 ($p < 0.05$), which is consistent with what we found for this study (0.84).

Brief COPE: Coping mechanisms were measured using the Brief COPE (Carver, 1997). The Brief COPE scale includes 28 questions that ask the participant to indicate which of the 14 coping mechanisms they use with their most impactful stressor using a five-point Likert scale (1 = I have not been doing this to 5 = I have been doing this a lot) (Carver, 1997). Sample items include: “I’ve been saying to myself ‘this isn’t real’”; “I’ve been praying or meditating”; and “I’ve been using alcohol or other drugs to help me get through it.” The fourteen coping mechanisms can be broken into a binary subscale to measure positive and negative coping mechanisms. Previous studies have reported the internal consistency of this scale to have a Cronbach’s alpha of 0.78 (Brougham et al., 2009). This study found the Cronbach’s alpha coefficient to be 0.66.

Spirituality Scale: Spirituality was assessed using the Spirituality Scale, which specifically assesses how spiritual one views one’s life and practices to be (Lindeman & Takada, 2012). This scale includes eight items that asked about personal spirituality and spiritual practices using a five-point Likert scale (1 = strongly agree to 5 = strongly disagree). Sample items include: “The universe is ultimately spiritual” and “My outlook on life is spiritual.” Higher scores from this scale indicate higher levels of spirituality and spiritual practice. According to Diener, Emmons, Larsen, and Griffin (1993), this scale generally has a Cronbach’s alpha between 0.82-0.87. Cronbach’s alpha of the Spirituality Scale for this study was 0.90.

Satisfaction with Life Scale: Life satisfaction was measured with the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). This scale includes five questions assessing life satisfaction on a seven-point Likert scale (1 = strongly disagree to 7 = strongly agree). Sample items include: “I am satisfied with my life” and “In most ways, my life is close to ideal.” Higher scores from this scale would indicate higher levels of satisfaction. Cronbach’s alpha for this scale for this study was 0.86, but other studies found it to be 0.93 ($p < 0.05$) (Lindeman, Blomqvist, & Takada, 2012).

Qualitative Response: In addition to completing the scales, participants were asked a supplementary question with a small, free-form space for response. This question asked, “how does your spirituality affect your day-to-day life?” Responses were then assessed for consistent motifs and themes.

Results

Data was submitted anonymously through Qualtrics Survey system or hard copy surveys. The scales were scored for each individual and qualitative responses were categorized. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity occurred.

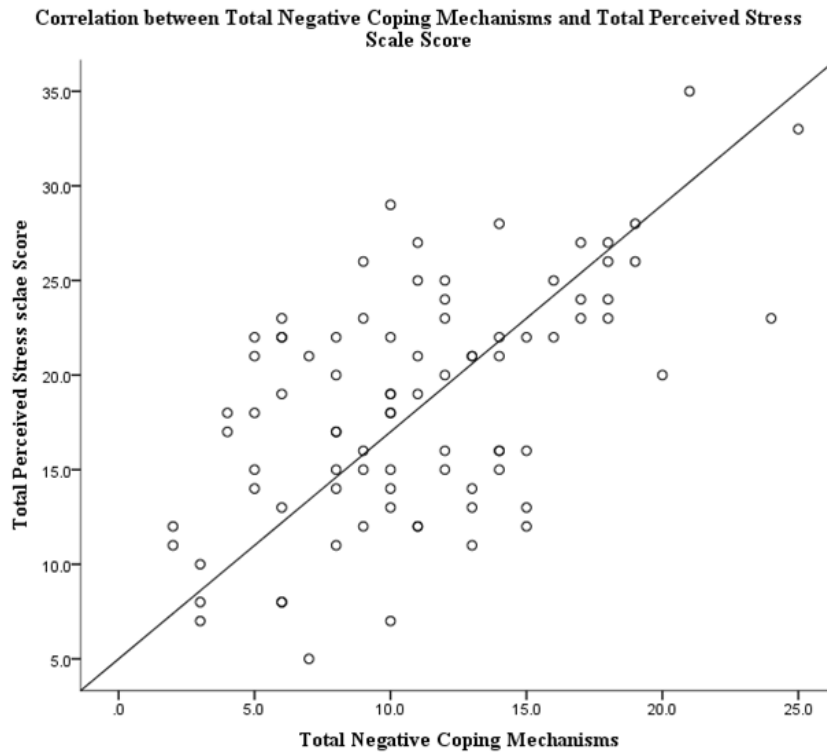


Figure 1 This bivariate correlation above compares participants' scores on the Perceived Stress Scale with their use of negative coping mechanisms. The positive correlation found explains 42.7% of the variance.

Perceived Stress, Employment, and Coping Behaviors: A one-way, between-groups analysis of variance was conducted to explore the relationship between employment and levels of perceived stress measured by the Perceived Stress Scale (Cohen, et al., 1983). Participants were separated into the four categorical levels of employment (full-time, part-time, volunteer, unemployed). There were no statistical differences between groups on the self-reported measure of stress: $F(3, 80) = 0.112, p = 0.953$.

The relationship between perceived stress and the composite scores of negative coping behaviors was evaluated using Pearson product-moment correlation coefficient. There was a strong, positive correlation between negative coping behaviors and perceived stress ($r(90) = 0.67, p < .0005$) with high levels of perceived stress associated with increased negative coping behaviors (Figure 1).

Spirituality, Life Satisfaction, and Coping Behaviors: For the following analyses, participants were divided into the following three groups according to their total scores on the Spirituality Scale: low spirituality (<10), medium spirituality (11-19), and high spirituality (20+). Cutoffs were made to ensure that each group contained a similar number of individuals.

One-way analysis of variance then assessed differences between each group according to their average scores on both the Life Satisfaction Scale and the positive coping mechanisms scale within the Brief COPE. As seen in Table 3, the assessment of spirituality and life satisfaction demonstrated a small, significant difference between low spirituality (Group 1; M = 15.00, SD = 9.70) and high spirituality (Group 3; M = 18.67, SD = 5.47). One-way analysis of variance also examined differences between low spirituality and high spirituality with regard to positive coping behaviors. There was a significant mean difference between low spirituality (M = 19.32, SD = 10.71) and high spirituality (M = 29.00, SD = 7.18). The Tukey HSD post-hoc test also indicated a large effect size of 0.19 eta squared.

Table 3 Psychological Predictors of Spirituality

Spirituality <i>M (SD)</i>						
	Group 1 (<10)	Group 2 (11-19)	Group 3 (20+)	F	p	eta ²
Positive Coping Mechanisms	19.32 (10.71)	24.83 (5.67)	29.00 (7.19)	14.12	0.00**	0.19*
Life Satisfaction	15.00 (9.70)	18.56 (6.57)	18.67 (5.47)	3.08	0.05*	0.05

Note: *p < 0.05, **p < .005

A one-way analysis of variance was also conducted to explore the difference in positive coping behaviors between high- and low-spirituality groups. The same aforementioned groups were used for this analysis. There was a significant mean difference between low spirituality (M = 19.32, SD = 10.71) and high spirituality (M = 29.00, SD = 7.18), as demonstrated by the Tukey HSD post-hoc test. The Tukey test also calculated a large effect size of 0.19 eta squared, indicating that those with higher spirituality generally engaged in more positive health behaviors than those with lower spirituality.

Spirituality and Religiosity: Finally, subjects were split into religious and nonreligious categories and were closely studied through independent t-tests. Analysis did not reveal any significant differences between religious and nonreligious participants with regard to life satisfaction or positive health behaviors. An independent t-test examining total spirituality revealed a significant mean difference of 5.57, with religious participants demonstrating a higher spirituality mean.

Qualitative Responses: Qualitative responses were generally short and indicated the following theme: “It doesn’t” and positive reframing. “It doesn’t” or answers explaining that spirituality was not incorporated into a participant’s day-to-day life appeared as a consistent motif throughout responses and appeared to correspond with participants who did not identify with a religion. Positive reframing encompasses descriptions that explain how spirituality allowed participants to see stressful situations or interactions with other people in a more positive perspective. For example, one participant stated, “It causes me to look at the big picture and not get [caught up] in the unnecessary little dramas of life.” Another participant explained that spirituality affects the way that she sees others as she thinks, “how do I see it from their perspective?”

Discussion

The goal of this study was to evaluate relationships between stress, employment, spirituality, and life satisfaction. While many of our results revealed significant relationships, the absence of a difference in levels of perceived stress between employed students and unemployed students was an unexpected discovery. While previous research has suggested that employment contributes to stress in college students, it is possible that the relief of financial stress due to working outweighs the time commitment. These results could indicate that employment may be a stress reliever that drastically affects how people report levels of stress when they are employed. Another point to be considered is that those who are employed may not seek out as many obligations as those who volunteer or are unemployed. Many students may also have other unrepresented obligations on the survey; such as participating in clubs or activities on campus, looking after a child, or commuting to and from school (Brougham et al., 2009).

The hypothesis that greater negative coping behaviors would be related to greater perceived stress was supported. By breaking the Brief COPE scale into subscales, it was evident that negative coping mechanisms are used more frequently than positive coping behaviors by all students, but those with higher stress levels did report using negative coping behaviors more frequently than those with lower stress levels. This positive correlation between negative coping behaviors and perceived levels of stress is supported by previous studies (Oswalt & Riddock, 2007; Sherina et al., 2004; Zaleski et al., 1998). The positive relationship also indicates that those who are highly stressed may not be seeking out recuperative or helpful resources to best manage their stress. Our third hypothesis assumed that participants with higher spirituality scores would also present higher life

satisfaction scores, and this was supported in our study, remaining consistent with previous research (Kim & Seidlitz, 2002; Nagel & Sgoutas-Emch, 2007; Zullig et al., 2006). Additionally, results supported the hypothesis that participants with high spirituality scores would practice positive coping behaviors more frequently. These results suggest that spirituality may act as a buffer for stress or a specific method of positive coping in emerging adults. The development of spiritual engagement and this aspect of identity may be useful in forming positive coping mechanisms as habits that carry into adulthood, yet further research is needed to learn more about the nature of this relationship (Arnett, 2000; Hayman et al., 2007; Zullig et al., 2006).

The relationship between spirituality and positive coping behaviors was also supported by the appearance of positive reframing in qualitative responses, as participants explained that their spirituality allows them to cope with some situations by finding a more meaningful outlook on events and others. These results and responses signal the need for future studies to continue to examine the possibility that spirituality may serve as a buffer against stress. Future studies should also consider exploring the relationship between spirituality and coping through deeper, more insightful qualitative methods. Qualitative research around spirituality may further improve and clarify the language around this topic and distinguish it from religiosity. Finally, a t-test was conducted to assess religious and nonreligious participants. The t-test demonstrated no significant between these groups with regard to life satisfaction and positive coping behaviors. However, religious participants did score significantly higher on the Spirituality Scale. These results may be indicative of the “None” zone of the United States, as the Pacific Northwest has the highest number of individuals who identify as “spiritual but not religious” (Killen, 2006). This is reflected in our sample as 19.8% of our participants identified as “spiritual but not religious” while nearly half of participants did not indicate a religious affiliation. The scale used to assess spirituality in this study sought to address the population that identified as “None” by avoiding language that suggests a religious affiliation; such as saying, “spirituality is a connection to a greater force” rather than “my God is very important to me.” However, it is possible that religiously-affiliated participants demonstrated higher spirituality compared to nonreligious counterparts because religious participants may tend to interact with communities, rituals, and materials that offer a language around their spirituality and also encourage a more consistent presence of spirituality in their lives. Future studies should continue to explore possible differences between spirituality and religiosity in emerging adults and in definition.

Limitations

This study had several limitations that could be improved upon. First, the small sample had an over-representation of students who identified with a Caucasian racial background. Students were also only surveyed during a midterm week, which may have reflected a period of increased stress. Unfortunately, unequal variances prevented the use of two-way analysis of variance, which could have been used to compare perceived stress levels between those who identified as religious versus nonreligious. Additional qualitative work could be done to help identify what resources students need from their universities to help manage stressors. Researchers should also ask about specific coping behaviors to deepen the understanding of the relationship to spirituality.

Conclusion

This research attempted to understand several factors that may be related to stress in emerging adults, including employment, coping mechanisms, and spirituality. Our results revealed the following: employment status may not have a relationship with stress; those who report high levels of stress are more inclined to use negative coping mechanisms; there is a positive relationship between positive coping mechanisms, life satisfaction, and spirituality. Because there is very little research in this area, future studies should continue to explore the relationship between spirituality and stress. While our research has built on prior knowledge about college students' employment, perceived stress, spirituality, and life satisfaction, it also exposed areas that need further research to holistically understand and support emerging adults.

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