Received: 13 January 2021 | Revised: 12 May 2021 | Accepted: 27 May 2021

DOI: 10.1002/jcad.12410

ASSESSMENT AND DIAGNOSIS

Moderation of attachment on association between relationship status and depression

Stacey Diane Arañez Litam[1] | **A. Stephen Lenz**[2]

[1] Counseling, Administration, Supervision, and Adult Learning Department, Cleveland State University, Cleveland, Ohio, USA

[2] Department of Counseling, Health, and Kinesiology, Texas A&M University, San Antonio, USA

Correspondence
Stacey Diane Arañez Litam, Counseling, Administration, Supervision, and Adult Learning Department, Cleveland State University, 2121 Euclid Avenue, Julka Hall 282, Cleveland, Ohio 44115, USA.
Email: s.litam@csuohio.edu

Abstract
The COVID-19 pandemic has led to increasingly high rates of depression which may have deleterious effects on relationships. Given the mixed results regarding the protective nature of relationship status as married and secure adult attachment styles on depression, the current study examined the associations between relationship status and adult attachment styles on depression among US adults ($N = 747$) during the COVID-19 shelter in place orders. The results of our simultaneous regression analysis yielded a statistically significant model wherein secure attachment was negatively associated with depression. Although the results of our analysis of covariance determined that relationship status as married was a protective factor, this effect became significantly reduced after controlling for attachment characteristics. Married participants in our study reported greater severity of depressive symptoms compared to those who were single and partnered, even after controlling for attachment styles. Implications for counseling professionals, limitations, and future areas of research are additionally provided.

KEYWORDS
attachment, COVID-19, depression, marital satisfaction

MODERATION OF ATTACHMENT ON ASSOCIATION BETWEEN RELATIONSHIP STATUS AND DEPRESSION

As the prevalence of natural and man-made disasters continue to increase (National Centers for Environmental Information [NCEI], 2021), professional mental health counselors must be prepared to provide trauma-informed disaster mental health counseling services (American Counseling Association [ACA], 2014; Council for Accreditation of Counseling and Related Education Programs [CACREP], 2016). Following the COVID-19 pandemic, higher rates of psychological distress have been reported (Holmes et al., 2020; Litam & Oh, 2020; Moccia et al., 2020), with one study indicating a three-fold increase of depressive symptoms among US respondents (Ettman et al. 2020). Depressive symptoms are characterized by feelings of sadness, emptiness, or irritability that combine with somatic and cognitive changes and significantly impact a persons' ability to function in important areas of life (American Psychiatric Association, 2013). Although depressive symptoms have been linked to a myriad of negative outcomes including substance use (Hides et al., 2019), self-harm, suicide (Twenge, 2020), and relationship problems (Kouros & Cummings, 2011; Whisman et al., 2004), extant research has revealed how social support and relationship status as married may be protective factors that mitigate the deleterious effects of depression in stressful situations (Bruce et al., 2019; Grey et al., 2020; Holt-Lunstad et al., 2010; Pietromonaco & Collins, 2017; Salari et al., 2020; Shiovitz-Ezra & Leitsch, 2010; Vanassche et al., 2013). Given the high rates of depression and its sequela following COVID-19 (Ettman et al., 2020; Gao et al., 2020), professional counselors are called to understand how relationship status and adult attachment styles may influence well-being during natural disasters and other traumatic events.

The influence of adult attachment styles and relationship status are important predictors of psychological and emotional well-being (Catanzaro & Wei, 2010; Mikulincer &

Shaver, 2012; Simpson & Rhodes, 2017; Whiffen et al., 2001). Adult attachment styles are internal working models that frame expectations about intimate and romantic relationships (Collins et al., 2006) and may influence psychological well-being during times of traumatic stress such as COVID-19 (Moccia et al., 2020; Pietromonaco & Overall, 2020), terrorist attacks (Fraley et al., 2006), and natural disasters (Sandberg et al., 2010). Preparing counselors to provide disaster mental health services has been identified as an important area of training and research (Lambert & Lawson, 2013; Pow & Cashwell, 2017), and has been found to impact the well-being of helping professionals (Litam & Balkin, 2020; Litam et al., 2021). Disaster mental health counseling helps clients return to their baseline level of functioning while establishing safety and security (Sandoval et al., 2009). Mental health counselors are therefore called to understand how adult attachment styles and relationship status as married may influence depressive symptoms during natural disasters and other traumatic events to increase their competence when providing disaster mental health services.

COVID-19 and depression

The prevalence of depressive symptoms following high stress and traumatic situations has been established in the literature (Fraley et al., 2006; Rosenberg et al., 2020; Salari et al., 2020; Sandberg et al., 2010; Twenge, 2020). Salari et al. (2020) conducted a meta-analysis of 17 globally representative studies that examined the prevalence of stress, anxiety, and depression in the general population. Of the total international sample, 14 studies examined the prevalence of depression in the general population during the COVID-19 pandemic. Results indicated that levels of depression during the pandemic were significantly higher compared to depression prior to COVID-19 among participants from 21 to 40 years of age and were present in 33.7% of participants ($n = 44{,}531$; Salari et al., 2020). Similarly, a nationally representative survey of US adults ($n = 1010$) ranging from 18 to 94 years of age determined that 32% of participants reported depressive symptoms and associated higher rates of depression with unmarried status (Rosenberg et al., 2020). Rosenberg et al. (2020) study collected data from April 10 to April 20, 2020 and evidenced the increased levels of psychological distress during the US shelter in place (SIP) orders. Professional counselors must therefore consider how traumatic events may increase the prevalence of depressive symptoms among clients.

Depression and partnership status amid COVID-19

Research that examined the relation between depression and relationship status during traumatic events has yielded mixed results (Bruce et al., 2019; Holt-Lunstad et al., 2010; Pietromonaco & Collins, 2017; Shiovitz-Ezra & Leitsch, 2010; Vanassche et al., 2013; Yang & Ma, 2020). On the one hand, researchers have posited that high rates of depression following the COVID-19 pandemic in addition to the unique circumstances of SIP orders and social isolation (Brown et al., 2020) may have negative implications for the maintenance and quality of romantic relationships (Holmes, 2020; Pietromonaco & Overall, 2020; Williamson, 2020). For example, social isolation and quarantine may increase rates of stress and depressive symptoms among partners who are forced to navigate new challenges including a decrease in personal space and time, working from home without a dedicated office space, lack of childcare services, and financial difficulties (Brown et al., 2020; Pietromonaco & Overall, 2020). These external pandemic-related stressors may compound upon existing stressors and exacerbate relationship conflict in ways that increase depressive symptoms among married or cohabitating partners (Brown et al., 2020; Pietromonaco & Overall, 2020). In this way, relationship status as married or partnered may actually exacerbate symptoms of psychological distress. This hypothesis may be supported by earlier studies that evidenced how depression and depressive symptoms were associated with higher rates of relationship conflict, decreased quality of coping and problem-solving skills (Davila et al., 2003; Whisman & Uebelacker, 2009), and higher levels of attachment insecurity (Whiffen et al., 2001). Specifically, two large-scale national surveys conducted by Yang and Ma (2020) determined married Chinese adults experienced a greater decline in emotional well-being compared to their non-married counterparts. Another study conducted by Pieh et al. (2020) determined the risk for depressive symptoms among adults with poor relationship quality was nearly three times higher than those who reported marital satisfaction.

Conversely, other researchers have identified the protective nature of marital and relationship status on the effects of depression and posit that the comfort, security, and support garnered from partners represent critical sources of emotional well-being in times of stress (Holt-Lunstad et al., 2010; Pietromonaco & Collins, 2017). For example, being married or cohabitating with partners were protective against the harmful effects of depression and loneliness during non-pandemic conditions (Bruce et al., 2019; Shiovitz-Ezra & Leitsch, 2010). Married adults from 24 countries also reported higher rates of psychological well-being compared to their single counterparts (Vanassche et al., 2013). Though the ongoing zeitgeist on marital and relationship status laud the ways in which satisfying intimate partners mitigate the effects of stress and depression in non-crises conditions, the unique dynamics of natural disasters, such as COVID-19, may exacerbate existing relationship conflict in ways that worsen emotional outcomes and increase depressive symptoms among partnered people (Pietromonaco & Overall, 2020; Yang & Ma, 2020). The presence of these mixed findings underscore the importance of understanding the moderating role of relationship status as a factor for depression and illuminates the need for further investigation within the context of natural disasters, such as COVID-19.

Adult attachment and depression

Attachment theory posits that early caregiver relationships influence individuals' psychological well-being and provide a template for enduring patterns of emotional, cognitive, and behavioral responses (Ainsworth et al., 1978; Amani, 2016; Bowlby, 1988). Infant-caregiver attachment styles focus on the caregivers' response when infants' attachment systems become activated (e.g., a child's needs for safety, security, or soothing are threatened) and assess how infants learn to respond to distress when in the presence of caregivers (Ainsworth et al., 1978). Infant-caregiver attachment styles are categorized as secure, avoidant, resistant, and disorganized (Ainsworth et al., 1978; Benoit, 2004). Researchers have posited that infant-caregiver relationship templates continue to influence how adults understand themselves, others, and the world within the context of intimate or romantic relationships (Bartholomew & Horowitz, 1991; Bowlby, 1988; Wilhelm et al., 2016).

Adult attachment styles are categorized as secure, avoidant, or anxious (Bartholomew & Horowitz, 1991; Bowlby, 1988). Congruent with their positive experiences of early role models as caring and approachable, secure adults regard their relationships positively and perceive their partners as trustworthy and dependable (Simpson & Rhodes, 2017). Securely attached adults are low in avoidance and low in anxiety (Mikulincer & Shaver, 2007). Conversely, adults who have avoidant or anxious attachment styles had caregivers perceived as rejecting, cold, and uncaring (Bartholomew, 1990). Avoidant adults experience chronic intimacy avoidance and strive to maintain independence, control, and autonomy in their relationships by employing distancing and deactivation coping responses (Mikulincer & Shaver, 2003). Intimate relationships are often difficult for avoidant adults who tend to associate relationships with danger and disappointment (Brennan et al., 1998; Mikulincer, 1998). Anxious adults are consumed by their desire for closeness and intimacy and employ hyperactive coping responses when distressed (Collins et al., 2006). Because anxious adults tend to be hypervigilant and are sensitive to abandonment and rejection (Brennan et al., 1998; Shaver et al., 2005), they may attempt to increase their sense of security by employing emotion focused coping responses that contribute to feelings of stress and overwhelm in their partners (Shaver et al., 2005).

Though an extensive overview outlining the relationship between adult attachment styles and depression is beyond the purview of this article, researchers recognize that early attachment systems are activated by stressful events in ways that influence stress responsivity, health behavior, and depression in adulthood (Kidd et al., 2011; Pietromonaco & Beck, 2019). Compared to insecure attachment styles, the benefits of secure attachment on positive mental health outcomes has been established. For example, secure adults were more robust, recovered faster from stressful incidents, and reported higher levels of overall well-being and mental health compared to their insecure counterparts (Mikulincer & Shaver, 2012). Conversely, insecure attachment styles among adults were associated with a wide variety of mental health disorders (Mikulincer & Shaver, 2007), particularly depression (Catanzaro & Wei, 2010).

CONCEPTUAL FRAMEWORK

The vulnerability–stress–adaptation (VSA) model (Karney & Bradbury, 1995) posits that external stress, enduring vulnerabilities, and adaptive processes jointly interact in ways that impact relationship outcomes. When considering the role of attachment styles in the relationship between partnership status and mental health outcomes, the VSA (Karney & Bradbury, 1995) has been adapted to explain how the effects of COVID-19-related stressors on relationship satisfaction may vary depending on contextual vulnerabilities (i.e., marital status, gender, social class, age), the nature of COVID-19 stressors, and enduring individual vulnerabilities (i.e., attachment styles; Pietromonaco & Beck, 2019; Pietromonaco & Overall, 2020). A paucity of studies has outlined the relation between adult attachment styles, relationship status, and mental health outcomes during the COVID-19 pandemic. Moccia et al. (2020) reported high levels of anxious attachment was a risk factor for moderate to severe psychological distress while high levels of avoidant and secure attachment styles were protective factors. Conversely, Bussone et al. (2020) reported that attachment styles attenuated psychological distress during SIP orders such that adults with secure attachment were more negatively impacted by confinement compared to their insecure counterparts. The mixed findings related to adult attachment styles during COVID-19 lockdown warrant further investigation among US adult samples. Although the VSA model provides a strong theoretical framework, empirical analyses examining the relationships between contextual vulnerabilities (i.e., marital status) and enduring individual vulnerabilities (i.e., adult attachment styles) among US adults during SIP orders have not yet been conducted and necessitate further investigation. Understanding the relationship between adult attachment styles, marital status, and mental health outcomes during the COVID-19 pandemic may be important because individuals who have avoidant or anxious adult attachment styles may employ a greater frequency of deactivation or emotion focused coping styles, respectively, in response to higher levels of stress following the COVID-19 SIP orders. Given the increased risk for depressive symptoms among adults with poor relationship quality (Pieh et al., 2020; Yang & Ma, 2020) and following traumatic events (Fraley et al., 2006; Rosenberg et al., 2020; Salari et al., 2020; Sandberg et al., 2010; Twenge, 2020), it would behoove mental health professionals to obtain a deeper understanding of how adult attachment styles and marital status may impact depressive symptoms among adults during SIP orders to provide effective disaster mental health services.

THE CURRENT STUDY

The implementation of SIP orders during the COVID-19 pandemic may uniquely contribute to stress among partnered adults (Yang & Ma, 2020), which may activate adult attachment systems (Brennan et al., 1998; Kidd et al., 2011; Shaver et al., 2005) and contribute to depressive symptoms (Ettman et al. 2020; Pietromonaco & Overall, 2020). Given the high rates of depression reported among US adults during the COVID-19 pandemic (Holmes et al. 2020; Pieh et al., 2020; Salari et al., 2020) and mixed results regarding the protective nature of relationship status (Fredman et al., 2010; Marshall & Kuijer, 2017) and adult attachment styles (Bussone et al., 2020; Moccia et al., 2020) on mental health outcomes during crises and the COVID-19 pandemic (Luetke et al., 2020; Williamson, 2020), research is warranted to clarify the association between relationship status and adult attachment styles on depression among US adults during the COVID-19 SIP orders. The current study contributes to the paucity of research outlining the impact of relationship status and adult attachment styles on depression during the COVID-19 SIP orders and was guided by two research questions: (1) To what degree do attachment characteristics predict symptoms of depression during SIP orders associated with the COVID-19 pandemic? and (2) Are there statistically significant differences in self-reported depression symptoms during SIP orders between different relationship statuses, after controlling for presence of close versus anxious attachment characteristics?

METHOD

We implemented a sequential multi-method statistical strategy based on a non-parametric sampling approach to survey-based inquiry to address our research questions. The following section outlines the inclusion and exclusion criteria, participant characteristics, measurement of constructs, data collection process, and analytic plan of the study.

Inclusion and exclusion

Participants were recruited to participate in a study that investigated attributes and attitudes that predicted mental health during the Spring 2020 COVID-19 pandemic SIP orders. Participants were selected for inclusion in this study based on self-identification as single, partnered but not married, or married.

Participant characteristics

Participant characteristics may be somewhat representative of the larger population. Participants were 747 adults (M_{age} = 27.67, SD = 10.67, Range = 53 years). Participants identified as female (n = 429, 57.43%), male (n = 310; 41.50%), and transgender, gender queer, or non-binary (n = 8, 1.07%) and reported Caucasian/White (n = 488, 65.33%), African American/Black (n = 126, 16.87%), Hispanic/Latinx (n = 54, 7.23%), Asian American/Asian (n = 37, 4.93%), Arab American/Arab (n = 13, 1.74%), and Other (n = 21, 2.81%) cultural identities. Participants identified as predominately heterosexual/straight (n = 534, 71.48%) with others indicating bisexual (n = 179, 23.96%), gay or lesbian (n = 17, 2.28%), asexual (n = 8, 1.07%), or other (n = 9, 1.21%) sexual identities. The majority of participants were employed in full-time (n = 344, 46.05%) or part-time (n = 244, 32.66%) conditions and identified themselves as lower middle (n = 279, 37.35%) and upper middle (n = 248, 33.19%) social classes. Among participants, 322 (43.10%) reported depression symptoms considered positive for screening purposes with 154 (20.61%) reporting symptoms nearly every day during the 2 weeks prior to participation in our study.

Measurement of constructs

Demographic characteristics

A demographic and background form was created to collect participant demographic information. Data collected included information regarding relationship status (i.e., single, partnered or in a relationship, married, divorced), age, gender, race/ethnicity, employment status, affectional identity, and socioeconomic status.

Depression

This Patient Health Questionnaire-4 (PHQ-4; Kroenke et al., 2009) is a brief measure used for screening depression and anxiety symptoms among community populations and was selected for its ultra-brief format while retaining psychometric robustness. The PHQ-4 quantifies the severity and frequency of symptoms during the previous 2 weeks using response categories ranging from 0 (not at all) to 3 (nearly every day). The 2-item Anxiety scale consists of the following items: "Over the last 2 weeks, how often have you been bothered by feeling nervous, anxious or on edge?" and, "Over the last 2 weeks, how often have you been bothered by not being able to stop or control worrying?" The 2-item Depression scale includes the following items: "Over the last 2 weeks, how often have you been bothered by little interest or pleasure in doing things?" and, "Over the last 2 weeks, how often have you been bothered by feeling down, depressed or hopeless?" For PHQ-4 subscales, higher scores represent greater presence of symptoms. Estimates of internal consistency by Kroenke et al. and Lenz and Li (2021) reported internal consistency for scores on the PHQ ranging from 0.80 to 0.90 across diverse samples with factor invariance across age groups, gender, and ethnicities. Internal

consistency estimates the depression subscale in our study was 0.81.

Adult attachment styles

The Revised Adult Attachment Scale (RAAS; Collins, 1996) is an 18-item scale that measures how individuals generally feel in important close relationships. Participants use a 5-point Likert-type scale from 1 (not at all characteristic of me) to 5 (very characteristic of me) to accumulate scores on three subscales. The RAAS Close, Depend, and Anxiety subscales correspond to the extent to which people report comfort with closeness and intimacy (i.e., secure attachment), the extent to which individuals feel they can depend on others (i.e., avoidant attachment), and the extent to which people worry about being rejected or unloved, respectively (i.e., anxious attachment; Collins, 1996). The Close, Depend, and Anxiety subscales have six items each (Collins, 1996). Sample items for the Close, Depend, and Anxiety subscales were, "I find it relatively easy to get close to people," "I find that people are never there when you need them," and "I often worry that romantic partners don't really love me" (Collins, 1996). Alpha coefficient reliability estimates for the Close, Depend, and Anxiety subscales ranged from $\alpha = 0.80$ to 0.82, $\alpha = 0.78$ to 0.80, and $\alpha = 0.83$ to 0.85, respectively (Collins, 1996). Reliability generalization analyses completed by Graham and Unterschute (2014) found equivalence for RAAS score reliability based on demographic characteristics such as age, gender, domicile, relationship length, or marital status. In our study, reliability estimates were 0.68, 0.79, and 0.74 for Close, Depend, and Anxiety subscales.

Data collection

Researchers obtained University Institutional Review Board (IRB) approval prior to data collection. An electronic form of the assessment packet (i.e., demographic and background form, PHQ-4, and RAAS) was created using Qualtrics. Prospective participants were invited to participate in an online survey to obtain a deeper understanding of experiences during COVID-19 SIP orders. Participants were informed that completing the survey was voluntary and they could end the survey at any time. The Amazon MTurk platform was used to obtain a geodemographically diverse sample and MTurk workers received $1.00 compensation for their time. Participants were also recruited through the SONA psychology pool at a Midwestern public university and undergraduate students earned 0.5 research credits as part of their psychology course requirements for completing the survey. One screening question was included in the MTurk version of the survey to monitor data quality ("What is the monetary value of a quarter + dime + nickel?"). Incorrect responses resulted in removal of participants protocols from the overall dataset.

Analytic plan

Predictive relationships between attachment styles and depression

Preliminary analysis

Data were screened for missingness based on procedures described by Cook (2021). Although 34 (4.35%) cases were eliminated from the overall sample ($N = 781$) due to presence of survey data, but no demographics ($n = 29$) or inclusion of demographics, but not survey responses ($n = 5$), no missing data were identified across completed protocols. Descriptive statistics, reliability coefficients, bivariate correlations, Q–Q plots, and variance inflation factors (VIF) for predictor variables were inspected (See Table 1). Reliability coefficients within the acceptable and good ranges of internal consistency, small bivariate correlation magnitudes, acceptable Q–Q plot trends, and low VIFs indicated that predictive modeling between our variables was prudent.

Primary analysis

PHQ-4 depression scores were regressed on to Close, Depend, and Anxiety scores based on 1000 bootstraps within a simultaneous regression model using the *JASP* 0.14.0.0 software package. The regression model was evaluated for statistical significance at the 0.05 level and practical significance (R^2) was conceptualized using benchmarks discussed by Barrio Minton and Lenz (2019) wherein values are interpreted through the size and strength of relationships characterized as small/weak (0.02), medium/moderate (0.13), or large/strong (0.26). Unique predictor variables' contributions within the models were evaluated by interpreting p-values, unique R^2 values, and standardized beta weights (β).

Statistical power and precision

An a priori power analysis was completed using the G*Power 3.1.9.4 statistical software given a sample size of 747 based on 3 predictors and an alpha of 0.05. This analysis indicated that our design exceeded the minimum sample size required for modeling ($N = 43$). A post hoc power analysis was completed and indicated an achieved power of 1.00 suggesting a risk of Type I error; therefore, estimates of effect size (R^2) and standardized units of contribution (β) among model predictors were emphasized during model interpretation rather than statistical significance.

Differences between relationship status when controlling for attachment styles

Preliminary analysis

Assumptions for independent, covariate, and dependent variable types were met and no significant outliers were detected among depression scores. The Levene's test for homogeneity of variances was statistically significant ($p = 0.01$); however, plots of standard errors appeared to

TABLE 1 Descriptive statistics, regression model summaries, and visual depiction of variance among depression scores accounted for by Close (1), Depend (2), and Anxiety (3) subscales

	Descriptive statistics								Regression modeling					
Variable	***M***	***SD***	***r***	**1**	**2**	**3**	***VIF***	***B***	***SE***	***β***	***t***	***p***	***F***	***R²***
Depression symptoms	2.76	1.78	0.81										63.79**	0.21
1. *Close*	1.97	0.51	0.68	—	0.34	0.22	1.20	−0.72	0.12	−0.21	−5.79	<0.01		
2. *Depend*	1.81	0.47	0.79		—	0.01	1.14	−0.47	0.13	−0.13	−3.56	<0.01		
3. *Anxiety*	2.24	0.70	0.74			—	1.05	1.03	0.08	0.41	12.16	<0.01		
							—							
1	2	3	Unexplained variance											

Note: **Indicates statistical significance at the 0.01 level; *r* indicates reliability coefficient estimates for scores on PHQ depression (ρ) and AAS (α) items.

contain only slight differences in variance. Assumptions for heteroskedasticity ($p = 0.07$) and linearity between covariates and the dependent variable were met. Taken together, modeling of group differences on PHQ-4 depression scores when controlling for attachment styles appeared justified.

Primary analysis

We implemented a one-way analysis of covariance (ANCOVA) approach to detect main and interaction effects of relationships status (single; partnered, but not married; married) for scores on the PHQ-4 depression subscale while controlling for the effects of attachment styles defined by the Close, Depend, and Anxiety subscales of the RAAS. First, main effects between relationship status and depression scores were evaluated using an analysis of variance model tested at the 0.05 level of statistical significance. Practical significance of the model was inspected using the eta squared statistic ($\eta^2 = SS_{effect}/SS_{total}$) interpreted as representing small (0.02), medium (0.06), and large (0.14) magnitudes of effect. Next, the ANCOVA model was run with Close, Depend, and Anxiety subscale scores simultaneously entered into the model based on their uniqueness as determined through bivariate correlations depicted in Table 1. Our ANCOVA modeling implemented a Type III sum of squares analysis given the priority to emphasize the interaction effect between relationship status, attachment styles, and depression. Finally, a post hoc analysis was completed using Scheffé's method based on the unbalanced proportions of sample representation across single ($n = 262$), partnered ($n = 184$), and married ($n = 301$) groups. Pairwise comparisons were evaluated for statistical significance at the 0.05 level and their respective Cohen's *d* effect sizes were interpreted using procedures depicted by Watson et al. (2016) wherein values were regarded as small (0.20), medium (0.50), or large (0.80) magnitudes, represented in terms of standard deviation units, and situated back into their social context.

Statistical power and precision

An a priori power analysis based on our sample size ($N = 747$), number of groups (3) and covariates (1) suggested that a sample size of 158 would be necessary to detect a medium effect within our ANCOVA model based on an alpha of 0.05. A post hoc power analysis indicated an achieved power for our model of 0.99, thus indicating that a vulnerability of Type I error and that an emphasis on practical significance (η^2) was warranted.

RESULTS

Descriptive statistics, reliability estimates, bivariate correlations, and regression modeling results are provided in Table 1.

Predictive relationships between attachment styles and depression

The simultaneous regression analysis estimating the influence of RAAS subscales as predictors of PHQ-4 depression scale scores yielded a statistically significant model, $F(3, 746) = 63.79$, $p < 0.01$, $R^2 = 0.21$, indicative of a medium effect size and moderate association between variables in which model predictors account for approximately 21% of the change among scores estimating depression symptoms (see Table 1). Within the model, scores associated with the RAAS Anxiety subscale had a strong predictive relationship, $p < 0.01$, $R^2 = 0.13$, $\beta = 0.41$, accounting for 13% of the overall variance in the model. This finding suggests that for every 0.41 increase in scores on the Anxiety scale, a 1-point increase in scores on the PHQ-4 depression scale could be expected. Scores on the RAAS Close subscale were associated with a strong predictive relationship, $p < 0.01$, $R^2 = 0.06$, $\beta = -0.21$, accounting for 6% of the overall variance in the model. This finding suggests that for every 0.21 increase in scores on the Close subscale, a 1-point decrease in scores on the PHQ-4 depression scale could be expected. Scores on the RAAS Depend subscale were also associated with a negative predictive relationship, $p < 0.01$, $R^2 = 0.02$, $\beta = -0.13$, accounting for 2% of the overall variance in the model. This finding suggests that for every 0.13 increase in scores on the Depend subscale, a 1-point decrease in scores

TABLE 2 Mean score and post hoc group comparisons of group differences among depression scores when controlling for attachment characteristics

Mean score comparisons			Post hoc group comparisons						
	M	M_{adj}	Comparisons		M_{diff}	*SE*	*t*	*d*	$p_{Scheffe}$
Single	2.52	2.62	Single	Partnered	0.35	0.17	1.93	0.18	0.13
Partnered	2.08	2.27		Married	0.38	0.15	−2.49	0.23	0.03
Married	2.38	3.00	Partnered	Married	0.73	0.16	−4.30	0.45	<0.01

on the PHQ-4 depression scale could be expected. Taken together, these findings suggest that scores on the RAAS Close, Depend, and Anxiety subscales were all statistically significant predictors of scores on the PHQ-4 Depression subscale. However, the most practical effects tended to be associated with those representing secure attachment styles reflected by scores on the Close and Depend subscales.

Differences between relationship status when controlling for attachment styles

The results of our ANCOVA indicated a significant main effect for relationship status, $F(2, 744) = 44.76$, $p < 0.01$, $\eta^2 = 0.09$, indicative of a medium effect size and suggesting that the null hypotheses related to equivalence between groups can be rejected (See Table 2). When controlling for the influence of an attachment style suggesting that participants were comfortable with closeness and connection in relationships, a diminishing effect on group differences was observed, $F(2, 740) = 7.01$, $p < 0.01$, $\eta^2 = 0.02$, indicative of a small effect size. Inspection of adjusted means for the detected effects revealed that married participants ($M = 3.00$) reported more depression symptoms when compared to those who identified as single ($M = 2.62$) or partnered ($M = 2.28$). These trends were confirmed through inspection of post hoc analyses which detected statistically significant comparisons between married and partnered participants, $t = -4.30$, $p < 0.01$, $d = 0.45$ indicative of a small effect size wherein married participants reported depression symptoms about 45% of standard deviation more than those who were partnered (See Table 2). Similarly, statistically significant comparisons were detected between married and single participants, $t = -2.49$, $p < 0.01$, $d = 0.23$ indicative of a small effect size wherein married participants reported depression symptoms about 23% of standard deviation more than those who were single. Comparisons between single and partnered participants were not statistically significant, $t = 1.93$, $p = 0.13$, $d = 0.18$. Taken together, these findings suggest a statistically significant effect for relationship status as a protective factor; however, when controlling for influence of attachment styles, the ratio of between–within groups variability and practical significance of the detected effect was reduced. Furthermore, participants who were married tended to report depression symptoms to a greater degree than those who were single and partnered, even after controlling for the attachment styles.

DISCUSSION

The results of predictive modeling indicated that higher levels of comfort in close relationships were negatively associated depression scores. Similarly, participants who reported greater comfort in their ability to depend on others were more likely to report less depression. It is plausible that participants who reported more security characteristics in their attachment styles may have been able to leverage their close relationships and employ appropriate coping responses in times of high stress during the COVID-19 SIP orders. As explained by Mikulincer and Shaver (2012), secure adults recover faster from episodes of distress and may experience longer periods of affective positivity that contribute to psychological well-being. Thus, secure adults in our study may have been robust to stressful experiences during the SIP orders as they may have been more successful in employing strategies to reduce or manage stress. These results may be applicable for counselors providing disaster mental health services. Helping clients in stressful situations cultivate secure attachment styles may contribute to lower levels of depressive symptoms.

Our results support findings reported by Moccia et al. (2020) that indicated both secure and avoidant attachment styles were protective factors for psychological distress. One possible explanation for our findings may be that adults who scored low on the Depend subscale, indicative of avoidant attachment, may have underreported, or dissociated from, their levels of mental health distress. Indeed, adults who demonstrate avoidant attachment styles may appear calm in distressing situations, even when their internal experiences are destabilized (Moccia et al., 2020). Another possible explanation for our findings may be that adults who reported lower levels on the Depend subscale may have truly experienced less distress when SIP orders were implemented because they were able to maintain independence, control, and autonomy in their lives (Mikulincer & Shaver, 2003). Isolation and social distancing recommendations during SIP orders may have also paralleled emotional distancing and deactivating coping responses, which are often preferred by avoidant adults in times of stress (Mikulincer & Shaver, 2003). When providing disaster mental health services, professional counselors are encouraged to demonstrate curiosity about how clients' adult attachment styles may be a protective factor for psychological well-being.

Although our ANCOVA results indicated relationship status was a protective factor for self-reported depression,

married partnership status was associated with greater depressive symptoms after controlling for adult attachment styles. Our findings contribute to earlier studies that established the protective effects of relationship status (Bruce et al., 2019) and simultaneously emphasize the variable effects of relationship status in times of crises (Fredman et al., 2010; Marshall & Kuijer, 2017; Yang & Ma, 2020). Our findings are consistent with an earlier study that reported married individuals experienced a greater decline in emotional well-being compared to single adults during COVID-19 (Yang & Ma, 2020). Indeed, the unique conditions associated with navigating confined spaces during SIP orders may exacerbate relationship conflict and lead to lower levels of psychological well-being among partnered people (Yang & Ma, 2020), especially parents (Brown et al., 2020; Chung et al., 2020). After controlling for attachment styles, it is possible that married adults in our study reported greater symptoms of depression because they lacked the freedom and autonomy to enjoy personal space, struggled to balance multiple intersecting roles as parents, spouses, and employees, and may have faced higher levels of financial distress compared to their single counterparts who may lack the accumulated expenses associated with marriage and childcare. Our findings additionally supplement earlier research that reported the influence of relationship satisfaction in the link between depression and partnership status (Pieh et al., 2020). Based on these results, it may behoove professional counselors to critically consider how one's ability to maintain personal boundaries and honor individual identities and space may be of special import among married partners during high stress situations.

Our results may be further explained through the adapted VSA model (Karney & Bradbury, 1995; Pietromonaco & Overall, 2020). The adapted VSA model posits that the effects of COVID-19 on relationships will be influenced by contextual vulnerabilities, nature of COVID-19 stressors, and enduring individual vulnerabilities (Pietromonaco & Overall, 2020). Our study is the first to confirm aspects of the adapted VSA model by examining the relationship between partnership status and attachment style on mental health among US adults during COVID-19 SIP orders.

Taken together, the present study contributes to the dearth of research on the associations of relationship status and attachment style as predictors of psychological distress during the COVID-19 SIP orders. On the one hand, relationship status appeared to be a protective factor; on the other hand, those relationships were defined by participants' attachment style. These results supplement existing research that reported the protective effects and psychological benefits of secure attachment styles among adults (Catanzaro & Wei, 2010; Mikulincer & Shaver, 2007, 2012), particularly during COVID-19 lockdown (Moccia et al., 2020) while challenging earlier studies that indicated secure attachment styles during COVID-19 confinement contributed to greater mental health distress (Bussone et al., 2020).

Implications for counselors

Counselors can incorporate these findings into their practice by considering the varying effects of relationship status and adult attachment styles on mental health outcomes during crises and when providing disaster mental health counseling services. Specifically, mental health professionals are encouraged to avoid endorsing a limited perspective that solely espouses the universal benefits of marital or partnership status and secure adult attachment styles as salient protective factors for preserving mental health during natural disasters and other crises. Instead, professional counselors are encouraged to assess whether clients' relationship status and adult attachment styles may be helpful or detrimental to achieving pre-crisis baseline levels of well-being. For example, counselors providing disaster mental health services may inquire about the resources and social support networks available to clients and assess how the presence (or lack) of these relationships may be hindering or promoting psychological health and emotional well-being. Mental health professionals may also assess for various factors of relationship satisfaction, such as communication styles and problem-solving abilities, to identify and amplify opportunities for growth among married couples and to discern the extent to which partners feel capable of maintaining personal space and boundaries. Finally, counselors providing disaster mental health services can examine whether clients' preferred coping responses represent successful strategies that garner closeness, intimacy, and security within their relationships.

The results from our study illuminate the unique influences of adult attachment and partnership status on psychological well-being during high stress events and emphasize the importance of considering how adult attachment styles and relationship status may be important factors to consider when providing disaster mental health counseling services. Although overlaps may exist, married clients may benefit from different treatment goals and areas of focus depending on whether depressive symptoms are linked to insecure attachment styles or barriers to marital satisfaction. Counselors can begin exploring the sequela of depressive symptoms in high stress and crisis situations by asking questions such as, "How has the quality of your relationship changed following the crisis?" "To what extent do you feel that your partner been reliable, supportive, accessible, and responsible during this stressful time?" and "What challenges have you experienced in your relationship during this natural disaster?" Taken together, these questions may uncover whether the client's depressive symptoms are linked to marital satisfaction or whether increased rates of psychological distress are associated with an activated attachment system.

Although a detailed overview of counseling strategies that repair insecure attachment styles and increase intimacy and closeness in relationships is beyond the purview of this section (see Brown & Elliott, 2016; Gottman, 1999), specific considerations exist for professional counselors and are outlined here. First, when counseling adults who have insecure attachment styles, counselors must recognize that those with

avoidant attachment traits may employ distancing responses that contribute to inaccurate reports or present as euthymic in session despite experiencing internal distress (Bartholomew & Horowitz, 1991; Mikulincer & Shaver, 2003). Similarly, therapists must recognize that adults with anxious attachment styles may be sensitive to abandonment, struggle to regulate their emotions, and seek to fulfill their need for constant attention in detrimental ways (Brennan et al., 1998; Collins et al., 2006; Shaver et al., 2005). Counselors are therefore encouraged to support adults who have insecure attachment styles develop effective coping responses that mitigate the potentially harmful consequences of highly emotive or distancing responses that may overwhelm or push away partners instead of cultivating security.

Limitations of the present study and recommendations for future research

The findings from our study must be interpreted within the context of its limitations. First, our study relied on data using a cross-sectional and retrospective research design that limits the directionality and causality of our model. Future research is encouraged to utilize a longitudinal approach that would allow for a clearer understanding of the directionality among each study variable at various time points. This recommendation is particularly important as it is possible that married adults in our study may have initially reported higher levels of depression during SIP orders but were able to successfully cultivate communication, problem solving, or self-care strategies that mitigated the effects of depression at later time points. It is also possible that common methods variance (i.e., correlational bias or inflation) may occur in cross-sectional research designs. Future studies may consider the use of mixed methods or qualitative approaches to examine the various intersecting influences that may contribute to the role of attachment and partnership status on mental health that were not examined in our study, such as relationship satisfaction, conflict resolution abilities, and communication skills. The study also used the 2-item PHQ-4 depression subscale, which may not have sufficient to accurately measure the complex construct of depression (Eisinga et al., 2013). Future areas of study may benefit from using longer depression scales or a combination of scales. Next, the study sample included MTurk workers and college students and may not be generalizable to a wider population. Although steps were taken to remove MTurk entries with identifiable response patterns, the use of MTurk data in the sample represents an important limitation. Future areas of study may consider collecting data from a general adult population. Finally, the majority of participants in our study predominantly identified as White, heterosexual individuals. Therefore, future studies are needed to explore the relationships between depression, partnership status, and adult attachment style among individuals who have diverse intersecting oppressed identities, such as among people of Color and among lesbian, gay, bisexual, transgender, non-binary, and gender expansive individuals.

CONCLUSION

Mental health professionals must be prepared to support clients who experience high stress situations, crises, and natural disasters while considering the contextual influences that may affect psychological well-being, such as partnership status and adult attachment style. In our study, secure attachment style was negatively associated with depression. After controlling for attachment style, married participants reported greater severity of depressive symptoms compared to their single and partnered counterparts. Professional counselors are encouraged to consider how marital status and adult attachment styles may influence depressive symptoms among clients when providing disaster mental health counseling services.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

ORCID

Stacey Diane Arañez Litam https://orcid.org/0000-0001-5398-8305
A. Stephen Lenz https://orcid.org/0000-0002-3360-835X

REFERENCES

Ainsworth, M. D. S., Blehar, M. D., Waters, E., & Wall, S. (1978). *Patterns of attachment*. Erlbaum.
Amani, R. (2016). Mother-infant attachment styles as a predictor of aggression. *Journal of Midwifery and Reproductive Health*, *4*(1), 506–512.
American Counseling Association. (2014). *ACS code of ethics*. https://www.counseling.org/knowledge-center/ethics#2014code
American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing.
Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships*, *7*(2), 147–178. http://doi.org/10.1177/0265407590072001
Barrio Minton, C. A., & Lenz, A. S. (2019). *Practical approaches to applied research and program evaluation for helping professionals*. Routlege.
Bartholomew, K., & Horowitz, L. M., (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Psychology*, *61*(2), 226–244. https://doi.org/10.1037//0022-3514.61.2.226
Benoit, D. (2004). Infant-parent attachment: Definition, types, antecedents, measurement and outcome. *Journal of Paediatrics and Child Health*, *9*(8), 541–545. https://doi.org/10.1093/pch/9.8.541
Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. Basic Books.
Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). The Guilford Press.
Brown, S. M., Doom, J. R., Lechuga-Peña, S., Watamura, S. E., & Koppels, T. (2020). Stress and parenting during the global COVID-19 pandemic. *Child Abuse & Neglect*, *110*, 104699. https://doi.org/10.1016/j.chiabu.2020.104699
Brown, D. P., & Elliott, D. S. (2016). *Attachment disturbances in adults: Treatment for comprehensive repair*. Norton Professional Books.
Bruce, L. D., Wu, J. S., Lustig, S. L., Russell, D. W., & Nemecek, D. (2019). Loneliness in the United States: A 2018 national panel survey of demographic, structural, cognitive, and behavioral characteristics. *American Journal of Health Promotion*, *33*(8), 1123–1133. https://doi.org/10.1177/0890117119856551

Bussone, S., Pesca, C., Tambelli, R., & Carola, V. (2020). Psychological health issues subsequent to SARS-Cov 2 restrictive measures: The role of parental bonding and attachment style, *Frontiers in Psychiatry*, *11*. https://doi.org/10.3389/fpsyt.2020.589444

Catanzaro, A. & Wei, M. (2010). Adult attachment, dependence, self-criticism, and depressive symptoms: A test of a mediation model. *Journal of Personality*, *78*(4), 1135–1162. https://doi.org/10.1111/j.1467-6494.2010.00645.x

Chung, G., Lanier, P., & Ju, P. W. Y. (2020). Mediating effects of parental stress on harsh parenting and parent-child relationship during coronavirus (COVID-19) pandemic in Singapore. *Journal of Family Violence*. https://link.springer.com/article/10.1007/s10896-020-00200-1

Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion, and behavior. *Journal of Personality and Social Psychology*, *71*(4), 810–832. https://doi.org/10.1037//0022-3514.71.4.810

Collins, N. L., Ford, M. B., Guichard, A. C., & Allard, L. (2006). Working models of attachment and attribution processes in intimate relationships. *Personality and Social Psychology Bulletin*, *32*(2), 201–219. https://doi.org/10.1177/0146167205280907

Cook, R. T. (2021). Addressing missing data in quantitative counseling research. *Counseling Outcome research and Evaluation*, *12*(1), 43–53. https://doi.org/10.1080/21501378.2019.1711037

Council for Accreditation of Counseling and Related Education Programs. (2016). *2016 standards for accreditation*. Author.

Davila, J., Karney, B. R., Hall, T. W., & Bradbury, T. N. (2003). Depressive symptoms and marital satisfaction: Within-subject associations and the moderating effects of gender and neuroticism. *Journal of Family Psychology*, *17*(4), 557–570. https://doi.org/10.1037/0893-3200.17.4.557

Eisinga, R., te Grotenhuis, M., & Pelzer, B. (2013). The reliability of a two-item scale: Pearson, Cronbach, or Spearman-Brown? *International Journal of Public Health*, *58*, 637–642. https://doi.org/10.1007/s00038-012-0416-3

Ettman, C. K., Abdalla, S. M., Cohen, G. H., Sampson, L., Vivier, P. M., & Galea, S. (2020). Prevalence of depression symptoms in US adults before and during the COVID-19 pandemic. *JAMA Open Network*, *3*, e2019686. https://doi.org/10.1001/jamanetworkopen.2020.19686

Fraley, R. C., Fazzari, D. A., Bonanno, G. A., & Dekel, S. (2006). Attachment and psychological adaptation in high exposure survivors of the September 11th attack on the World Trade Center. *Personality and Social Psychology Bulletin*, *32*, 538–551. https://doi.org/10.1177/0146167205282741

Fredman, S. J., Monson, C. M., Schumm, J. A., Adair, K. C., Taft, C. T., & Resick, P. A. (2010). Associations among disaster exposure, intimate relationship adjustment, and PTSD symptoms: Can disaster exposure enhance a relationship? *Journal of Traumatic Stress*, *23*(4), 446–451. https://doi.org/10.1002/jts.20555

Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., Wang, Y., Fu, H., & Dai, J. (2020). Mental health problems and social media exposure during COVID-19 outbreak. *PLOS One*, *15*, e0231924. https://doi.org/10.1371/journal.pone.0231924

Graham, J. M., & Unterschute, M. S. (2014). A reliability generalization meta-analysis of self-report measures of adult attachment. *Journal of Personality Assessment*, *97*(1), 31–41. https://doi.org/10.1080/00223891.2014.927768

Grey, I., Arora, T., Thomas, J., Saneh, A., Tohme, P., & Abi-Habi, R. (2020). The role of perceived social support on depression and sleep during the COVID-19 pandemic. *Psychiatry Research*, *293*, 113452. https://doi.org/10.1016/j.psychres.2020.113452

Gottman, J. (1999). *The marriage clinic: A scientifically based marital therapy*. Norton Professional Books.

Hides, L., Quinn, C. Stoyanov, S., Kavanagh, D., & Baker, A. (2019). Psychological interventions for co-occurring depression and substance use disorders. *Cochrane Database of Systemic Reviews*, *11*, 1–67. https://doi.org/10.1002/14651858.CD009501.pub2

Holmes, E. A., O'Conner, R. C., Perry, V. H., Tracey, I., Wessely, S., Arseneault, L., Ballard, C., Christensen, H., Silver, R. C., Everall, I., Ford, T., John, A., Kabir, T., Kin, K., Madan, I., Michie, S., Przybylski, A. K., Shafran, R., Sweeney, A., … Bullmore, E. (2020). Multidisciplinary research priorities for the COVID-19 pandemic: A call for action for mental health science. *The Lancet*, *7*(6), 547–560. https://doi.org/10.1016/S2215-0366(20)30168-1

Holmes, E. A., O'Conner, R. C., Perry, V. H., Tracey, I., Wessely, S., Arseneault, L., Ballard, C., Christensen, H., Silver, R. C., Everall, I., Ford, T., John, A., Kabir, T., Kin, K., Madan, I., Michie, S., Przybylski, A. K., Shafran, R., Sweeney, A., … Bullmore, E. (2020). Multidisciplinary research priorities for the COVID-19 pandemic: A call for action for mental health science. *The Lancet*, *7*(6), 547–560. https://doi.org/10.1016/S2215-0366(20)30168

Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. *PLoS Medicine*, *7*(7), 1–20. https://doi.org/10.1371/journal.pmed.1000316

Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, methods, and research. *Psychological Bulletin*, *118*(1), 3–34. http://doi.org/10.1037/0033-2909.118.1.3

Kidd, T., Hamer, M., & Steptoe, A. (2011). Examining the association between adult attachment style and cortisol responses to acute stress. *Psychoneuroendocrinology*, *36*(6), 771–779. https://doi.org/10.1016/j.psyneuen.2010.10.014

Kouros, C., & Cummings, E. (2011). Transactional relations between marital functioning and depressive symptoms. *American Journal of Orthopsychiatry*, *81*(1), 128–138. https://doi.org/10.1111/j.1939-0025.2010.01080.x

Lambert, S., & Lawson, G. (2013). Resilience of professional counselors following hurricanes Katrina and Rita. *Journal of Counseling & Development*, *91*(3), 261–268. https://doi.org/10.1002/j.1556-6676.2013.00094.x

Lenz, A. S., & Li, C. (2021). Evidence for measurement invariance and psychometric reliability for scores on the PHQ-4 from a rural and predominantly Hispanic community. *Measurement and Evaluation in Counseling and Development*. https://doi.org/10.1080/07481756.2021.1906157

Litam, S. D. A., Ausloos, C. D., & Harrichand, J. S.(2021). COVID-19 stress and resilience among professional counselors. *Journal of Counseling & Development.*

Litam, S. D. A., Ausloos, C. D., & Harrichand, J. S. (2021). Stress and resilience among professional counselors during the COVID-19 pandemic. *Journal of Counseling & Development*, *99*(4), 384–395. https://doi.org/10.1002/jcas.12391

Litam, S. D. A., & Balkin, R. (2020). Moral injury in healthcare workers during the pandemic. *Traumatology: An International Journal*, *999*(2). https://doi.org/10.1037/trm0000290

Litam, S. D. A., & Oh, S. (2020). Ethnic identity and coping strategy as moderators of COVID-19 racial discrimination experiences among Chinese Americans. *Counseling Outcome Research and Evaluation*. https://doi.org/10.1080/21501378.2020.1814138

Litam, S. D. A., Ausloos, C. D., & Harrichand, J. S. (2021). Stress and resilience among professional counselors during the COVID-19 pandemic. *Journal of Counseling & Development*, *99*(4), 384–395. https://doi.org/10.1002/jcas.12391

Litam, S. D. A., & Balkin, R. (2020). Moral injury in healthcare workers during the pandemic. *Traumatology: An International Journal*, *999*(2). https://doi.org/10.1037/trm0000290

Litam, S. D. A., & Oh, S. (2020). Effects of COVID-19 racial discrimination on Chinese Americans: Ethnic identity and coping strategy as moderators. *Counseling Outcome Research and Evaluation*. https://doi.org/10.1080/21501378.2020.1814138

Lambert, S., & Lawson, G. (2013). Resilience of professional counselors following hurricanes Katrina and Rita. *Journal of Counseling & Development*, *91*(3), 261–268. https://doi.org/10.1002/j.1556-6676.2013.00094.x

Luetke, M., Hensel, D., Herbenick, D., & Rosenberg, M. (2020). Romantic relationship conflict due to the COVID-19 pandemic and changes in intimate and sexual behaviors in a nationally representative sample of American adults. *Journal of Sex & Marital Therapy*, *46*(8), 747–762. https://doi.org/10.1080/0092623X.2020.1810185

Kroenke, K., Spitzer, R. L., Williams, J. B. W., & Löwe, B. (2009). An ultra-brief screening scale for anxiety and depression: The PHQ-4, *Psychosomatics*, *50*(6), 613–621. https://doi.org/10.1176/appi.psy.50.6.613

Marshall, E. M., & Kuijer, R. G. (2017). Weathering the storm? The impact of trauma on romantic relationships. *Current Opinion in Psychology*, *13*, 54–59. https://doi.org/10.1016/j.copsyc.2016.04.013

Mikulincer, M. (1998). Attachment working models and the sense of trust: An exploration of interaction goals and affect regulation. *Journal of Personality and Social Psychology*, *74*(5), 1209–1224. https://doi.org/10.1037/0022-3514.74.5.1209

Moccia, L., Janiri, D., Pepe, M., Dattoli, L., Molinaro, M., De Martin, V., Chieffo, D., Janiri, L., Fiorillo, A., Sani, G., & Di Nicola, M. (2020). Affective temperament, attachment style, and the psychological impact of the COVID-19 outbreak: An early report on the Italian general population. *Brain, Behavior, and Immunity*, *87*, 75–79. https://doi.org/10.1016/j.bbi.2020.04.048

Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. Guilford Press.

Mikulincer, M. & Shaver, P. R. (2003). The attachment behavioral system in adulthood: Activation, psychodynamics, and interpersonal processes. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 35, pp. 53–152). Academic Press.

Mikulincer, M., & Shaver, P. R. (2012). An attachment perspective on psychopathology. *World Psychiatry*, *11*(1), 11–15. https://doi.org/10.1016/j.wpsyc.2012.01.003

National Centers for Environmental Information. (2021). *U.S. billion-dollar weather and climate disasters*. https://www.ncdc.noaa.gov/billions/

Pieh, C., O'Rourke, T., Budimir, S., & Probst, T. (2020). Relationship quality and mental health during COVID-19 lockdown. *PLoS One*, *15*(9). https://doi.org/10.1371/journal.pone.0238906

Pietromonaco, P. R., & Beck, L. A. (2019). Adult attachment and physical health. *Current Opinions in Psychology*, *25*, 115–120. https://doi.org/10.1016/j.copsyc.2018.04.004

Pietromonaco, P. R., & Collins, N. L. (2017). Interpersonal mechanisms linking close relationships to health. *American Psychologist*, *72*(6), 531–542. https://doi.org/10.1037/amp0000129

Pietromonaco, P. R., & Overall, N. C. (2020). Applying relationship science to evaluate how the COVID-19 pandemic may impact couples' relationships. *American Psychologist*. *76*(3), 438–450. https://doi.org/10.1037/amp0000714

Pow, A. M., & Cashwell, C. S. (2017). Posttraumatic stress disorder and emotion-focused coping among disaster mental health counselors. *Journal of Counseling & Development*, *95*(3), 322–331. https://doi.org/10.1002/jcad.12146

Rosenberg, M., Luetke, M., Hensel, D., Kianersi, S., Fu, T-C., & Herbenick, D. (2020). Depression and loneliness during COVID-19 restrictions in the United States, and their associations with frequency of social and sexual connections. *Social Psychiatry and Psychiatric Epidemiology*. https://doi.org/10.1101/2020.05.18.20101840

Salari, N., Hosseinian-Far, A., Jalali, R., Vaisi-Raygani, A., Rasoulpoor, S., Mohammadi, M., Rasoulpoor, S., & Khaledi-Paveh, B. (2020). Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: A systemic review and meta-analysis. *Globalization and Health*, *16*(57), Article 57. https://doi.org/10.1186/s12992-020-00589-w

Sandberg, D. A., Suess, E. A., & Heaton, J. L. (2010). Attachment anxiety as a mediator of the relationship between interpersonal trauma and posttraumatic symptomatology among college women. *Journal of Interpersonal Violence*, *25*(1), 33–49. https://doi.org/10.1177/0886260508329126

Sandoval, J., Scott, A. M., & Padilla, I. (2009). Crisis counseling: An overview. *Psychology in the Schools*, *46*(3), 246–256. https://doi.org/10.1002/pits.20370

Shaver, P. R., Schnachner, D. A., & Mikulincer, M. (2005). Attachment style, excessive reassurance seeking, relationship processes, and depression. *Personality and Social Psychology Bulletin*, *31*(3), 343–359. https://doi.org/10.1177/0146167204271709

Shiovitz-Ezra, S., & Leitsch, S. A. (2010). The role of social relationships in predicting loneliness: The national social life, health, and aging project. *Social Work Research*, *34*(3), 157–167. https://doi.org/10.1093/swr/34.3.157

Simpson, J. A., & Rhodes, W. S. (2017). Adult attachment, stress, and romantic relationships. *Current Opinions in Psychology*, *13*, 19–24. https://doi.org/10.1016/j.copsyc.2016.04.006

Twenge, J. M. (2020). Increases in depression, self-harm, and suicide among U.S. adolescents after 2012 and links to technology use: Possible mechanisms. *Psychiatric Research & Clinical Practice*. *2*(1), 19–25. https://doi.org/10.1176/appi.prcp.20190015

Vanassche, S., Swicegood, G., & Matthijs, K. (2013). Marriage and children as a key to happiness? Cross-national differences in the effects of marital status and children on wellbeing. *Journal of Happiness Studies*, *14*(2), 501–524. https://doi.org/10.1007/s10902-012-9340-8

Watson, J. C., Lenz, A. S., Schmit, M., & Schmit, E. (2016). Estimating and reporting practical significance in counseling research. *Counseling Outcome Research and Evaluation*, *7*(2), 111–123. https://doi.org/10.1177/2150137816660584

Williamson, H. C. (2020). Early effects of the COVID-19 pandemic on relationship satisfaction and attributions. *Psychological Science*, *31*(12), 1479–1487. https://doi.org/10.1177/0956797620972688

Whiffen, V. E., Kallos-Lilly, A. V., & MacDonald, B. J. (2001). Depression and attachment in couples. *Cognitive Therapy and Research*, *25*(5), 577–590. https://doi.org/10.1023/A:1005557515597

Whisman, M. A., & Uebelacker, L. A. (2009). Prospective associations between marital discord and depressive symptoms in middle-aged and older adults. *Psychology and Aging*, *24*(1), 184–189. https://doi.org/10.1037/a0014759

Whisman, M., Uebelacker, L., & Weinstock, L. (2004). Psychopathology and marital satisfaction: The importance of evaluating both partners. *Journal of Counseling and Clinical Psychology*, *72*, 830–838. https://doi.org/10.1037/0022-006X.72.5.830

Wilhelm, K., Gillis, I., & Parker, G. (2016). Parental bonding and adult attachment style: The relationship between four category models. *International Journal Women's Health and Wellness*, *2*(1), 1–7. https://doi.org/10.23937/2474-1353/1510016

Yang, H., & Ma, J. (2020). How an epidemic outbreak impacts happiness: Factors that worsen (vs. Protect) emotional well-being during the coronavirus pandemic. *Psychiatry Research*, *289*, 113045–113045. https://doi.org/10.1016/j.psychres.2020.113045

How to cite this article: Litam, S. D. A., & Lenz, A. S. (2021). Moderation of attachment on association between relationship status and depression. *Journal of Counseling & Development*, 1–11. https://doi.org/10.1002/jcad.12410