

Coping with Stress Associated with Anticipated Stigma:
The Role of Dyadic Coping for Married Undergraduate Students

by

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ABSTRACT

Being married as an undergraduate student is uncommon, considering the average age people marry in the U.S. is 28-years-old. Given that the “traditional” undergraduate student is unmarried, being a married undergraduate student may be associated with the anticipation of stigma due to their marital status, which may be a stressful experience (hereafter-anticipated stigma stress) and have harmful effects on one’s well-being, particularly symptoms of anxiety. As such, it is important to identify ways in which romantic partners can help one another cope with this unique stressor by engaging in positive or negative dyadic coping (DC). Using cross-sectional data from 151 married undergraduate students, this project examined whether perceptions of partner’s positive and negative DC moderated the association between anticipated stigma stress and symptoms of anxiety. There was a significant main effect of anticipated stigma stress on anxiety, such that higher anticipated stigma stress was associated with greater symptoms of anxiety. Delegated DC moderated this association, such that when participants reported high levels of anticipated stigma stress, those who reported higher partner’s use of delegated DC also reported higher symptoms of anxiety as compared to those who reported low partner’s use of delegated DC. Implications for future research and mental health counselors are discussed.

Keywords: married, college, anticipated stigma, stress, dyadic coping, anxiety

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CHAPTER 1

INTRODUCTION

Getting married as an undergraduate student between the ages of 18 and 24 is uncommon (American College Health Association, 2015); however, some undergraduate students are choosing to say “I do” to their significant other before earning their Bachelor’s degree. The average age of marriage in the U.S. is approximately 28-years-old (i.e., 29 for males and 27 for females; United States Census Bureau, 2015), so being married as an undergraduate student may be unusual. As such, being married young and in undergraduate college may lead to anticipated stigma stress, which is defined as stress experienced consequently to anticipating the negative response of others based on one’s disregarded status (Link, Wells, Phelan, & Yang, 2015). The anticipation of stigma has been found to be negatively associated with psychological well-being, such as symptoms of anxiety (Quinn, Williams, Quintana, Gaskins, et al., 2014). Therefore, it is important to identify ways in which married undergraduate students can cope with anticipated stigma stress.

Romantic partners can help one another cope with stress, specifically by engaging in positive dyadic coping (Falconier, Jackson, Hilpert, & Bodenmann, 2015). Perceptions of partner’s dyadic coping behaviors may be important in understanding how one copes with a stressor (e.g., anticipated stigma stress based on marital status). There is, however, a dearth of research that has examined how perceptions of partner’s dyadic coping may moderate the association between anticipated stigma stress and symptoms of anxiety. Given the plethora of research that suggests partner’s dyadic coping behaviors can have

positive outcomes on psychological well-being (Bodenmann, 1997), a promising area of study is to examine how dyadic coping may moderate the association between specific stressors, such as those associated with the anticipation of stigma, on symptoms of anxiety (as proxies for individual well-being). The current study aims to address this gap in the literature by examining data from 151 married college students.

Profile of the Married Undergraduate Student

In the United States, undergraduate students can be identified as “traditional” and/or “nontraditional” in a variety of ways. One common way that students are determined to be traditional or nontraditional is regarding age (National Center for Education Statistics, 2015). Traditional undergraduate students are typically between the ages of 18-24 years old (American College Health Association, 2015), and approximately 90 percent (91.1%) of undergraduate students fit this category. Additionally, a student can be determined to be traditional or nontraditional based on relationship status. The American College Health Association (2015) indicated that being married as an undergraduate student was not as common as being single or in a casual romantic relationship.

Despite being of the “traditional” age in college, being in a married relationship as an undergraduate student can be considered “nontraditional.” In the United States, the approximate age for marriage is 28-years-old (i.e., 29 for males and 27 for females; United States Census Bureau, 2015), which is older than the traditional age of undergraduate students. Consequentially, traditionally-aged married undergraduate students may be considered to go against the traditional norm nationally (i.e., age) and in the college setting (i.e., relationship status).

There are several reported reasons as to why traditionally-aged undergraduate students (e.g., between the ages of 18 and 24) are getting married during college. One reason is that the thought of waiting until older age for marriage to be unappealing (Steinberg, 2011). Students report that peers in college, as well as older members in the community, are more vocal about disagreeing with their marital status, reporting that they are openly criticized for being married young and in college (Steinberg, 2011). Steinberg (2011) suggest that students are more indirectly affected by others' judgments of their marital status in college, such as not being included in social outings under the assumption that they would be unable to join due to being married. Given this, receiving difficult feedback from others regarding one's relationship status may lead undergraduate married students to experience stigma and marginalization due to their marital status.

Stigma and Marginalization

Stigma occurs when an individual, or a group of people, possess a quality that devalues their social identity within a context (Crocker, Major, & Steele, 1998). For example, if a person is identified as different from the majority, this places them in a marginalized group (a group that has been rendered different based on sociopolitical designations, where there is an automatic ascription and assumption of group identity (Arredondo, 2008). Individuals assumed to be of a marginalized group may be identified primarily in terms of attribute(s) associated with the status (Link & Phelan, 2006). Regarding the specific study sample of married undergraduate students, this group may be identified as "married" by peers rather than a generally nonstigmatized label (e.g., "college student") due to the marital status's difference from the norm. Awareness of one's stigmatized marital status may put the student at risk of feeling marginalized, which

may lead to increased levels of stress (Link & Phelan, 2006) consequentially increasing symptoms of psychological distress (Quinn & Chaudoir, 2009).

Anticipation of stigma. Stigma may be experienced overtly (i.e., outward, readily apparent; Howarth, 2006) and covertly (i.e., secret, hidden; Ikizer, Ramírez-Esparza, & Quinn, 2017; Quinn et al., 2014). Occasionally, people imagine what others may think about their own stigmatized status, anticipating what might happen in an interaction with others, and rehearsing what one might do if something negative occurs. For example, a traditionally-aged married undergraduate student may imagine that nonmarried students think that students should not be married in college; these married students may anticipate a negative interaction with a single student regarding one's marital status as well as imagine how they would react in that encounter. These imagined relations can have an impact on psychological well-being, even if the internalization of negative stereotypes fails to occur (Link et al., 2015).

The concept of anticipated stigma originates from multiple strands of social science theory, more specifically the symbolic interaction theory (Stryker, 1980). Symbolic interaction theory posits that people commonly anticipate expected interactions because people seek to predict what others might think. This awareness of one's stigmatized status, as well as the anticipation of how others will respond to their marginalized identity, may lead an individual to create notions about what could transpire in an interaction and imagine useful strategies to achieve a desired outcome; this occurs all before an interaction takes place (Link et al., 2015). For example, Quinn and colleagues (2014) found that in both clinical and non-clinical populations, those with a concealed stigmatized identity (e.g., mental illness, experience of domestic violence)

anticipated stigma based on being devalued by others if the identity became known, and this was related to increased symptoms of anxiety. In the context of married undergraduate students, knowing that one is a part of this marginalized group may lead to anticipated stigma, even without others' awareness of the marital status.

Within a Western context, a common way that one can determine if someone is married or not is based on whether the individual is wearing a wedding ring (Leafloor, 2015). This can be difficult to assess because not all married individuals wear a wedding ring, which may lead to their marital status being a concealed identity. Married undergraduate students may experience the adverse effects of anticipated stigma regardless of if their marital status is disclosed or not. As mentioned prior, students may experience negative effects on one's psychological well-being due to anticipating a negative response from others (e.g., single undergraduate peers, professors, community members who adhere to traditional college and national norms of marriage).

Anticipated stigma as a stressor. Stigma has been previously associated with increased levels of stress (e.g., Link & Phelan, 2006). Link and Phelan (2006) addressed in a review that considers marginalized individuals that those who have mental illness experience stress that is associated with the stigmatization of their stigmatized status (i.e., mental illness). In considering stigma as a stressor, researchers have identified more consequences of stigma in the realm of stress, such as negative psychological effects (e.g., intrusive thoughts, involuntary cardiovascular responses; Miller & Kaiser, 2001). Further, researchers have identified ways in which stigmatized people must deal with additional stressors that nonstigmatized people typically do not have to endure, such as presumptions and discrimination (Miller & Kaiser, 2001). This suggests that while the

general population experiences stressors, people with marginalized identities must manage additional stressors on top of “everyday” stressors (e.g., Randall, Tao, Totenhagen, Walsh, et al., in press).

Married undergraduate students may anticipate stigma based on their nontraditional marital status, which may be associated with feelings of stress (Miller & Kaiser, 2001; Miller & Major, 2000). By considering the anticipation as a source of stress, researchers can begin to understand what effects, if any, it has on implications for well-being. It is crucial to understand the deleterious effects of anticipated stigma due to previous literature suggesting that these individuals may experience psychological distress. Regardless of if the stigma is directly experienced, the person may still anticipate the negative reaction of the majority group (i.e., nonmarried undergraduate students, older married individuals, those who identify this as a norm), which could lead to consequential stress and affected individual well-being. Limited research exists on how married undergraduate students perceive their partner to help them cope with this stress, which is a goal of the present study.

Stress as a Dyadic Construct

Traditional models of stress have viewed stress as an individual level phenomenon (Lazarus & Folkman, 1984), in that stress occurs when a person perceives a situation or an event as harmful and endangering his or her health or well-being by exceeding available resources (Lazarus & Launier, 1978). Lazarus’ transactional approach (Lazarus, 1999) posited that stress affects both partners in a dyad and that this stress affects each partner. While the individual was still considered the unit of analysis in Lazarus’ transactional approach, expanding the analysis to understand how stress could

affect one's environment was an important expansion of more traditional individually focused models.

It was not until the 1990s that researchers began to focus specifically on understanding stress within a systems framework, specifically a couple's relationship (Bodenmann, 1995, 2005). Taking into consideration couples' shared experiences (Kelley & Thibaut, 1978), researchers believed it necessary to expand the concept of stress in a systemic way and to conceive of stress and coping as an interactive process between partners, because stress experienced by one or both individuals can be experienced as a couple (Bodenmann, 1995). One focus of this expansion was conceptualizing stress in the context of close relationships (Randall & Bodenmann, 2009; 2017). Stress in couples can result from sources outside the relationship (external stress), such as social stress at school, or from within the couple (internal stress), such as worry about a partner due to his or her well-being. External stressors typically affect only one partner; however, the effects of this stress can indirectly affect the relationship, triggering dyadic stress such as arguments and conflicts (stress spillover; Neff & Karney, 2007). For example, if one partner is anticipating stigma by a peer in class, and s/he expressed that frustration to his or her partner at home, it would be considered individual stress if that stress is communicated to the other partner. Additionally, a focus of the expansion was to identify ways in which couples cope with stress. Identifying that there are positive and negative forms of dyadic coping, researchers have been able to identify means that partners are able to cope with stress.

Coping with Stress: Role of Dyadic Coping (DC)

The systemic-transactional model (STM; Bodenmann, 1997) offers a system-oriented approach to understand stress and coping processes in the context of couple's relationship, which emphasizes both partners' interdependence and reciprocal influence in the stress and coping processes. In other words, STM considers that one partner's stress appraisal, experience, and coping depend on the other partner's (Bodenmann, 1995). Dyadic coping (DC) involves all efforts of one or both partners to cope with stress in the context of their relationship (Bodenmann, 1995). Specifically, DC describes the ways in which couples cope with stress either from one (external) or both (internal) partners. Importantly, DC behaviors can be either positive or negative (Bodenmann, 1995, 2005).

There are several positive DC strategies, including supportive DC and delegated DC (Bodenmann, 1997). Supportive DC occurs when one partner assists the other in his or her coping efforts. This can be expressed through activities such as helping with daily tasks or providing practical advice, empathic understanding, helping the partner reframe the situation, and more (Bodenmann, 1997). The unresolved or ineffectively handled stress of one partner affects the other, so both partners have a vital interest in supporting one another in order to guarantee their own well-being as well as the well-being and stability of the relationship (Bodenmann, 2005). For example, if one partner is experiencing stress due to anticipating stigma based on marital status, positive supportive DC may be present in a couple's coping strategy. These coping strategies may be either emotion-focused, which includes joint relaxation exercises or an empathetic understanding of the partner's stress, or problem-focused, including joint problem solving

and concrete help with daily tasks, or (Bodenmann, 1997). Delegated DC occurs when one partner takes over responsibilities to reduce the stress experienced by his or her partner; the partner is explicitly asked to give support (Bodenmann, 2005).

Negative DC include hostile DC, ambivalent DC, and superficial DC (Bodenmann, 2005). Hostile DC involves support that is accompanied by disparagement, distancing, mocking or sarcasm, open disinterest, or minimizing the seriousness of the partner's stress. This means that the supporting partner provides help (e.g., gives advice) but does so in a negative way. Ambivalent DC occurs when one partner supports the other unwillingly or with the attitude that his or her contribution should not be unnecessary. Superficial DC consists of support that is insincere, for example, asking questions about the partner's feelings without listening or supporting the partner without empathy (Bodenmann, 2005). When negative DC strategies are communicated, the partner seeking help may not be as willing to share stressful experiences with their partner, which could lead to relationship dissatisfaction (Bodenmann, 2005).

Associations between DC and symptoms of anxiety. Positive DC has been shown to be significantly correlated to greater general life satisfaction and psychological well-being (Bodenmann, 1997). Previous research has suggested that the partner's use of DC is associated with one's own symptoms of anxiety, in that perception of partner's negative DC was negatively associated with one's own symptoms of anxiety (Regan, Lambert, Kelly, McElduff, et al., 2014).

There is a call for more research that considers how DC may mitigate the negative association between different types of stress on measures of individual well-being (Falconier, Randall, & Bodenmann, 2016). The present study will put this call to action

by examining the associations between the anticipation of stigma and symptoms of anxiety, and moderating effects of DC.

The Present Study

The goal of the present study was three-fold: (1) identify whether married undergraduate students experienced anticipated stigma stress based on marital status, (2) identify whether anticipated stigma stress would be associated with symptoms of anxiety, and (3) test for moderating effects of perceptions of partner's use of DC. Using a sample of married undergraduate students (ages 18-24 years), the following research questions (RQs) were examined and hypotheses (Hs) were tested:

RQ1: Do married undergraduate students experience anticipated stigma stress from being married?

H1: It was hypothesized that married undergraduate students would experience anticipated stigma stress based on their marital status.

RQ2: Is anticipated stigma stress related to reported symptoms of anxiety?

H2: It was hypothesized that there would be a positive association between anticipation of stigma stress and reported symptoms of anxiety, based on previous literature which suggests that the ongoing presence of stress creates psychological distress (i.e., increased symptoms of anxiety; Miller & Kaiser, 2001).

RQ3: Do perceptions of partner's DC moderate the association between anticipated stigma stress and symptoms of anxiety?

H3a: It was hypothesized that perceptions of partner's use of positive DC (e.g., emotion-focused supportive DC, problem-focused supportive DC,

and delegated DC) would be associated with lower symptoms of anxiety, which is based on literature that has suggested that positive DC has been negatively associated with symptoms of anxiety (Bodenmann, Meuwly, & Kayser, 2011).

H3b. It was hypothesized that perceptions of partner's use of negative DC would be associated with higher symptoms of anxiety. This is based on previous literature that has found negative DC to be positively associated with symptoms of anxiety (Bodenmann, Meuwly, & Kayser, 2011).

CHAPTER 2

METHODS

Recruitment and Participants

Participants were recruited in one of three ways: (1) university listservs associated with a large public University located in the Southwest (e.g., undergraduate student professional organizations), (2) various social media outlets (e.g., mental health forums, Facebook), and (3) from Amazon Mechanical Turk (MTurk), an online portal where researchers can post their work for human intelligence to complete for compensation. Participants had to meet the following inclusion criteria to participate: (1) be between the age of 18-24, (2) currently an undergraduate in college, (3) currently married to someone between ages 18-24, and (4) have no children.

A total of 487 individuals were screened to participate in the present study. After screening for inclusion criteria, a total of 151 individuals ($n=100$ female, $n=50$ male, $n=1$ no response) met the inclusion criteria and were included in the present results. Most participants identified as White/Caucasian (81.4%), senior/fourth-year in college (35.1%), religiously affiliated as a Christian (42.4%), and an average income of \$25,000-\$49,999 (36.4%).

Participants reported being married for an average of 1.03 years ($SD = 0.72$, range = .08 – 4.17), and in a relationship with their current spouse, including relationship before marriage, for an average of 2.94 years ($SD = 1.78$, range = .00 – 9). The average length that participants knew their spouse prior to marriage was 2.74 years ($SD = 2.34$, range = .17 – 14). See Table 1 for additional descriptive information.

Procedure

Data collection took place in two parts: (1) online screening questionnaire (1 minute; see Appendix A) and (2) online research questionnaire (20 minutes; see Appendix B). Participants were recruited through universities listservs, social media outlets, and MTurk.

For non-MTurk participants, an electronic recruitment flyer and the URL to the screening survey were provided online. Participants were able to voluntarily participate in the survey by clicking the link, which would direct them to the screening survey to determine eligibility. Once the participant was determined to be eligible, participants were automatically redirected to the research survey. Before beginning the research survey, participants would read and agree or disagree to informed consent. Upon completion of the research survey, participants were instructed to click on a URL that would take them to a new survey that was not connected to the research survey to ensure anonymity of responses. In this survey, participants provided their email addresses for compensation.

For participants recruited from MTurk, participants were provided a human intelligence task (HIT) that they were voluntarily able to participate in if interested. HITs may consist of surveys, research questionnaires, etc. that cannot be completed by artificial intelligence. Participants are able to search for HITs based on keywords or different areas of interest and may select a specific HIT if interested in participating in that research study. Participants interested in the current study were provided a URL to the screening survey in order to determine eligibility for research questionnaire; it was not necessary that interested participants were to contact the primary investigator in order

to begin the survey. Participants who met eligibility through screening survey were automatically redirected to the research survey. Before beginning the research survey, participants would read and agree or disagree to informed consent. Upon completion of the research survey, MTurk participants were to create a unique code that would be entered in the primary investigator's survey as well as on Amazon's MTurk site; in doing this, the primary investigator was able to confirm participants' completion of the survey by connecting the unique code from the research survey to the one provided on the MTurk website.

All participants were compensated \$2.50 for their time with an Amazon.com e-gift card.

Measures

Anticipated stigma stress. Anticipated stigma stress was measured with an adopted version of the Anticipation of Rejection scale (AR; Link et al., 2015) created for this study. The AR is a 7-item assessment that asks participants to report on the anticipation of rejection within the past 3 months. Participants rated each item on a 5-point Likert scale, ranging from 1 (“*Never*”) to 5 (“*Very often*”). For the current study, the questions were modified to ask participants if they have anticipated rejection based on the stigma of being married in college. Items included how often did “you worry what other people might think about you because of the stigma of being married in college” and “you worry that people think of you as a married college student and nothing else.” Scoring consisted of adding all seven items together for a total score. Total scores could range from a low of 7 to a high of 35; the closer the final score was to 35, the more the student anticipated rejection based on the stigma of being a married undergraduate

student. The study sample reported a mean of 14.86 ($SD = 6.22$, range = 7 – 32), which suggests that the sample experienced some anticipation of stigma based on marital status. Link and colleagues (2015) identified an acceptable alpha regarding the scale's internal consistency ($\alpha = 0.85$) using a sample of 65 inpatients from psychiatric hospitals. The AR showed good reliability in the current study ($\alpha = 0.92$).

Symptoms of anxiety. Symptoms of anxiety were measured by the anxiety subscale of the Depression Anxiety Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1996). The anxiety subscale is a 7-item assessment that asks participants to report on the frequency or severity of individual's symptoms of anxiety over the past week. Participants rated each item on a 4-point Likert scale, ranging from 0 (“*Did not apply to me at all*”) to 3 (“*Applied to me very much, or most of the time*”). Items included how often in the past week “I experienced breathing difficulty” and “I felt I was close to panic.” Scoring consisted of adding all seven items together for a total score. Total scores could range from a low of 0 to a high of 21; the closer the final score was to 21, the more the participant reported symptoms of anxiety. The study sample reported a mean of 2.29 ($SD = 0.63$, range = 2 – 21), which suggests that the current sample experienced high symptoms of anxiety. The scale showed good reliability ($\alpha = 0.90$).

Perception of partner's DC. Perceptions of partner's DC were measured with the English version of the Dyadic Coping Inventory (DCI; Randall, Hilpert, Jimenez-Arista, et al., 2015). The DCI is a 37-item measure of stress communication and partners' dyadic coping behaviors. The DCI uses a 5-point Likert scale ranging from 1 (“*Very rarely*”) to 5 (“*Very often*”) to measure how individuals perceive their own DC behaviors (self), their partner's DC behaviors (partner), and how they cope as a couple (common

DC). The DCI has 16 scales, including stress communication, emotion-focused supportive DC (EF-SDC), problem-focused supportive DC (PF-SDC), delegated DC, negative DC, emotion-focused common DC, and problem-focused common DC, in addition to including measures of an overall evaluation of DC, total self DC, total partner DC, and total (dyad) DC. For the purpose of the present study, the following subscales assessing perceptions of partner's use of DC were utilized: (1) EF-SDC, (2) PF-SDC, (3) delegated DC, and (4) negative DC.

Positive DC was measured by using the following subscales: EF-SDC, PF-SDC, and delegated DC. Perceptions of partner's DC scores were created by calculating a mean score for each partner subscale (Bodenmann, 2008). EF-SDC consisted of two items, including "My partner shows empathy and understanding" ($M = 4.25$, $SD = 0.76$). PF-SDC consisted of two items, including "My partner helps me to see stressful situations in a different light" ($M = 3.87$, $SD = 0.74$). Delegated DC consisted of two items, including "My partner takes on things that I normally do in order to help me out" ($M = 3.65$, $SD = 0.72$). Using Spearman's rank order, subscales of positive DC indicated a strong correlation between items in EF-SDC ($r_s = .65$) and in delegated DC ($r_s = .61$) and a moderate correlation between items in PF-SDC ($r_s = .48$). Perceptions of partner's negative DC was measured by four items, including "My partner blames me for not coping well enough with stress" ($M = 1.94$, $SD = 0.82$; Bodenmann, 2008). Negative DC showed good reliability in the present study ($\alpha = .81$). Means and standard deviations are reported in Table 2.

Control variables. It is important to control for variables that may have significant associations with the dependent variables in the study (here symptoms of

anxiety), which may confound the association between the independent variable and dependent variable. If specific variables are not controlled for, it is more difficult to suggest that the independent variable is associated with the dependent variable, increasing errors that represent imprecision in measurement (Leary, 2012; Martin & Bridgmon, 2012). By controlling for extraneous variables that may influence symptoms of anxiety, the effect of anticipated stigma stressed can be more strongly associated with symptoms of anxiety.

Religiosity and relationship satisfaction were controlled for in the present study. Religiosity has been negatively associated symptoms of anxiety (e.g., Harris, Schoneman, & Carrera, 2002), such that higher religiosity has been associated with lower symptoms of anxiety. Further, relationship satisfaction has been found to be negatively associated with symptoms of anxiety (e.g., Rehman, Evoire, Karimiha, & Goodnight, 2015), such that higher relationship satisfaction has been associated with lower symptoms of anxiety. While the present study does not discuss significance of control variables amongst study variables, religiosity and relationship satisfaction were *ns* in the models, and they were kept in throughout analyses for consistency. See Tables 2 through 8 for data regarding correlations and main effects of religiosity and relationship satisfaction.

Data Analysis

Prior to running analyses, it was important to assess for assumptions as well as interpretability of results. Initial tests were used to determine assumption of normality (e.g., skewness, histograms, stem and leaf plots). The assumption of normality states that scores are evenly distributed in the sample, where most scores are in the average range. In testing for the assumption of normality, it was found that symptoms of anxiety were

significantly negatively skewed (-.75); participants tended to report higher symptoms of anxiety as compared to those who reported low to moderate symptomology. This means that the distribution of scores was not around the average and was not distributed normally. Symptoms of anxiety were adjusted by log transformation. The scores were transformed using log 10, where a value of 1 was added to the highest reported score and each individual score was subtracted from that value. In the current sample, the highest reported score regarding symptoms of anxiety was 21; adding a value of 1, this became 22, and each individual score was subtracted from this, and then transformed using log 10. After completing these transformations, the variables reflected a normal distribution with a nonsignificant skew (-.34), suggesting more interpretable results.

In addition to transforming symptoms of anxiety, the predictor (i.e., anticipated stigma stress) and moderators (i.e., EF-SDC, PF-SDC, and delegated DC) were mean centered. To produce unbiased estimates in the model, mean centering was used to rescale the predictors by subtracting the grand mean of the predictors from individual predictor scores, thus centering the variables on the overall mean. Interaction terms were created by multiplying mean centered scores for anticipation of stigma with centered scores of each DC subscale of interest (i.e., perception of partner's use of EF-SDC, PF-SDC, delegated DC, and negative DC).

Regression analyses were used to test the hypotheses. A sequential linear regression was used to predict the criterion variables (i.e., symptoms of anxiety) from the predictor variable (e.g., anticipated stigma stress). Each step in the regression model was assessed in terms of what it added to the equation, which determined which model it was entered into (Martin & Bridgmon, 2012). It was important to add the interaction term of

anticipated stigma stress and DC into the model after entering each variable of interest in step 1 to examine for possible moderating effects on the association between anticipated stigma stress and DC. All analyses were conducted with the Statistical Package for the Social Sciences (SPSS; IBM Corp, 2016).

CHAPTER 3

RESULTS

Descriptives

Means and standard deviations of study variables can be found in Table 2. Correlations among anticipation of stigma, symptoms of anxiety, EF-SDC, PF-SDC, delegated DC, negative DC and the control variables (i.e., religiosity and relationship satisfaction) were analyzed ($-.68 < r > .67$; see Table 3). Overall, there were statistically significant correlations between anticipated stigma stress and symptoms of anxiety ($r = .31, p < .001$), EF-SDC ($r = -.20, p = .013$), PF-SDC ($r = -.21, p = .011$), delegated DC ($r = -.35, p < .001$) and negative DC ($r = .26, p = .001$). Symptoms of anxiety were significantly associated with negative DC ($r = .21, p = .011$), but not other forms of positive DC.

Subscales of the DCI significantly correlated with each other, as well. EF-SDC was significantly correlated with PF-SDC ($r = .54, p < .001$), delegated DC ($r = .48, p < .001$), and negative DC ($r = -.68, p < .001$). PF-SDC was significantly correlated with delegated DC ($r = .49, p < .001$), and negative DC ($r = -.44, p < .001$). Delegated DC was significantly correlated with negative DC ($r = -.45, p < .001$). All correlations between DC subscales were in the expected direction (e.g., Ledermann, Bodenmann, Gagliardi, Charvoz, et al., 2010).

RQ1 and HI: Anticipated Stigma Stress

RQ1 was focused on whether married undergraduate students experience anticipated stigma stress from being married. It was hypothesized that married undergraduate students would experience anticipated stigma stress from being married

due to potentially being a marginalized group (Arredondo, 2008) and stigma being considered a stressor (Miller & Kaiser, 2001). The study sample reported a mean score of 14.86 ($SD = 6.22$) on the Anticipation of Rejection scale, which suggests participants in the sample reported experiencing moderately low anticipation of stigma from being married (Link et al., 2015).

RQ2 and H2: Anticipated Stigma Stress and Symptoms of Anxiety

RQ2 focused on whether anticipated stigma stress was related to symptoms of anxiety. It was hypothesized that there would be a main effect of anticipated stigma stress on symptoms of anxiety, where high anticipated stigma stress would be associated with high reported symptoms of anxiety. A regression analysis was used to determine if there was a main effect of anticipation of stigma on symptoms of anxiety. There was a significant main effect of anticipated stigma stress on symptoms of anxiety, $\beta = .32, p < .001$. As hypothesized, for every unit increase in anticipated stigma stress, there was a .32 unit increase in symptoms of anxiety. In other words, high anticipated stigma stress was associated with high symptoms of anxiety.

RQ3 and H3: Moderating Effects of DC on Anticipated Stigma Stress and Symptoms of Anxiety

RQ3 was interested in the moderating effects of partner's perception of positive DC (e.g., EF-SDC, PF-SDC, and delegated DC) and negative DC on the association between anticipated stigma stress and symptoms of anxiety. It was hypothesized that perceptions of partner's positive DC strategies (i.e., EF-SDC, PF-SDC, and delegated DC) would be associated with lower reported symptoms of anxiety, whereas perceptions

of partner's negative DC were hypothesized to be associated with higher reported symptoms of anxiety.

A sequential linear regression was conducted to determine the main effect of anticipated stigma stress on symptoms of anxiety and the interaction of DC on this association. Variables that may have a main effect on symptoms of anxiety (e.g., anticipated stigma stress, perception of partner's DC, control variables) were entered into step 1, and the interaction terms (i.e., anticipated stigma stress by perception of partner's DC) were entered into step 2. By entering the interaction terms at step 2, the researchers were able to determine if the interaction of anticipated stigma stress and DC resulted in a significant addition to the variance accounted for in symptoms of anxiety above and beyond the main effects of these variables. Anticipated stigma stress was assessed for its significant association with symptoms of anxiety, and an interaction term was created and entered in a following step to determine if the moderation (DC) had a significant addition to the variance accounted for in symptoms of anxiety.

H3a: Perception of partner's positive DC on anticipated stigma stress and symptoms of anxiety. Subscales of positive DC included perception of partner's EF-SDC, PF-SDC, and delegated DC. Results showed that anticipated stigma stress and EF-SDC predicted a significant portion of the variability in symptoms of anxiety, $\Delta R^2 = .08$, $F(4,147) = 4.24$, $p = .003$. This suggests that there was a significant main effect of anticipated stigma stress ($\beta = .25$, $p = .004$) on symptoms of anxiety. There was no indication of a significant interaction of EF-SDC on the association between anticipated stigma stress and symptoms of anxiety, $\beta = .10$, $p > .05$.

Results indicated that anticipated stigma stress and PF-SDC predicted a significant portion of the variability in symptoms of anxiety, $\Delta R^2 = .08$, $F(4,147) = 4.24$, $p = .003$. This suggests that there was a significant main effect of anticipated stigma stress ($\beta = .25$, $p = .004$) on symptoms of anxiety. There was no indication of a significant interaction of PF-SDC on the association between anticipated stigma stress and symptoms of anxiety, $\beta = -.03$, $p > .05$.

Results suggested that anticipated stigma stress and delegated DC predicted a significant portion of the variability in symptoms of anxiety, $\Delta R^2 = .10$, $F(4,147) = 5.03$, $p = .001$. This indicates that there was a significant main effect of anticipated stigma stress ($\beta = .28$, $p = .001$) on symptoms of anxiety in this model. In model 2, the overall regression model accounted for a significant proportion of the variance in symptoms of anxiety above and beyond the main effects of anticipated stigma stress and delegated DC, $R^2\text{change} = .03$, $F(5,146) = 5.17$, $p < .001$. Coefficients revealed that there was a significant interaction between anticipated stigma stress and delegated DC on symptoms of anxiety, $\beta = .18$, $p = .024$, such that when participants reported high anticipated stigma stress, participants who endorsed high perception of partner's delegated DC reported higher symptoms of anxiety as compared to those who reported low perceived delegated DC (see Table 4 and Figure 1).

H3b: Perception of partner's negative DC on anticipated stigma stress and symptoms of anxiety. Results showed that anticipated stigma stress and negative DC predicted a significant portion of the variability in symptoms of anxiety, $\Delta R^2 = .09$, $F(4,147) = 4.83$, $p = .001$. This suggests that there was a significant main effect of anticipated stigma stress ($\beta = .24$, $p = .005$) on symptoms of anxiety. There was no

indication of a significant interaction of negative DC on the association between anticipated stigma stress and symptoms of anxiety, $\beta = -.03, p > .05$.

In sum, there was a significant main effect of anticipated stigma stress on symptoms of anxiety, as predicted. Positive DC moderated this association, however, this effect was only found for delegated DC, such that when participants reported high anticipated stigma stress, participants who perceived higher partner's delegated DC reported higher symptoms of anxiety as compared to those who perceived low partner's delegated DC.

CHAPTER 4

DISCUSSION

Traditionally-aged married undergraduate students may be considered to hold a concealed stigmatized status due to their marital status, which may be associated with the anticipation of stigma. The anticipation of stigma is considered a source of stress (Miller & Kaiser, 2001), which has been shown to have harmful effects on one's psychological well-being, such as symptoms of anxiety. Perceptions of partner's dyadic coping (DC) may be important regarding how married undergraduate students may cope with anticipated stigma stress and consequential symptoms of anxiety. The goal of the present study was to identify whether married undergraduate students experienced anticipated stigma stress based on marital status, and if this experience was associated with reported symptoms of anxiety. Furthermore, the present study addressed whether perceptions of partner's dyadic coping (DC) moderated this association.

Anticipated Stigma Stress and Symptoms of Anxiety

Being between the ages of 18 and 24 and married in college is uncommon in the USA (American College Health Association, 2015); as such, these students may be considered to hold a marginalized status. When considering stigma as a stressor, researchers have identified that this stigma stress is associated with symptoms of anxiety (Miller & Kaiser, 2001). Based on this, it was hypothesized that married undergraduate students would experience anticipated stigma stress based on their marital status. As predicted, the study sample reported experiencing anticipated stigma stress; this suggests that traditionally-aged married undergraduate students experience anticipated stigma stress based on their marital status.

A possible source of this anticipation of stigma may be due to the culture of college life in the United States. The Princeton Review (2017) reports that along with information regarding SAT and ACT scores, financial aid, and other academic support services, students nationwide are able to vote annually for the “Best Party School in America” in consideration of undergraduate institutions. Interestingly, these “Best Party Schools” tend to also be ranked as the “Best 381 Colleges,” which ranks universities on student report of happiness, the school’s academics, and life at college (The Princeton Review, 2017); being considered a top college not only includes academic and financial support, but also the college’s lifestyle and party status. These rankings are reported in a variety of national newspapers (e.g., Kingkade, 2016; McCluskey, 2016) annually for students to observe in order to make a decision regarding which institution to attend for their undergraduate studies. For married undergraduate students, this association with academic success and a party lifestyle may not be realistic due to commitment to the marriage, such as dedication to relationship management, compromising, personal sacrifice, prioritizing the relationship, and believing in the longevity of the relationship (Stanley, Markman, & Whitton, 2002; Stanley & Markman, 1992). Low interpersonal commitment has been shown to be associated with one thinking seriously about dating or being with another partner as well as feeling “trapped” (Stanley, Markman, & Whitton, 2002, p. 662). Consequentially, students who are unable to meet these expectations may anticipate prejudgments on the reasoning behind their not going out due to being married alone (Link & Phelan, 2006) as well as potentially leading to relationship dissolution (Stanley, Markman, & Whitton, 2002).

The ongoing presence of a stressor creates psychological distress, as measured by high symptoms of anxiety (Randall & Bodenmann, 2017). As such, it was hypothesized that married undergraduate students that experience anticipated stigma stress would report higher symptoms of anxiety as compared to students who report low anticipation of stigma. As predicted, there was a significant main effect of anticipated stigma stress on symptoms of anxiety; high anticipated stigma stress was significantly associated with high symptoms of anxiety. Stigma, both overt (i.e., outward, readily apparent; Howarth, 2006) and covert (i.e., secret, hidden; Ikizer et al., 2017), have been shown to be significantly associated with symptoms of anxiety, in that the presence of stigma is associated with increased symptoms of anxiety. While married, undergraduate students may not experience overt stigma, these students may anticipate stigma based on their concealed identity, which has been shown to have significant adverse effects on symptoms of anxiety (e.g., Ikizer, et al., 2017).

Moderating Effects of Perception of Partner's DC

The systemic-transactional model (STM; Bodenmann, 1997) considers that one partner's stress appraisal, experience, and coping depend on the other partner's (Bodenmann, 1995). DC describes the ways in which couples' cope with stress (Bodenmann, 1995) whereas positive DC has been positively associated with psychological well-being and vice versa when considering negative DC. Perceptions of partner's use of DC is associated with one's own symptoms of anxiety (Regan et al., 2014). Further, studies have found that positive DC is negatively associated with symptoms of anxiety, while negative DC is positively associated with symptoms of anxiety (Bodenmann, Meuwly, & Kayser, 2011).

Positive DC. Surprisingly, and contrary to the hypotheses, there were nonsignificant interactions between anticipated stigma stress and symptoms of anxiety when looking at EF-SDC and PF-SDC. This suggests that when students perceive empathy and understanding (EF-SDC) or assistance in seeing stressful situations in a new light (PF-SDC) from their partners, it does not result in low symptoms of anxiety, which contradicts previous literature that suggests high positive DC is significantly associated with low symptoms of anxiety (Bodenmann, Meuwly, & Kayser, 2011). There was, however, a significant interaction of delegated DC on the association between anticipated stigma stress and symptoms of anxiety, such that when students reported experiencing high anticipated stigma stress, those who reported higher partner's delegated DC reported higher symptoms of anxiety as compared to those who reported low partner delegated DC. In other words, as students report high anticipation of stigma, perceptions that one's partner assists with things that one would normally do themselves was associated with higher symptoms of anxiety as compared to students who reported low delegated DC. Delegated DC involves direct action by partner in order to assist the student in the moment with their stress, while EF-SDC and PF-SDC can be understood as perceptions of less tangible support. Students who do not perceive delegated DC from their partners reported significantly lower symptoms of anxiety when experiencing high anticipated stigma stress. These results could be due to a myriad of factors, which is not limited to Type I error.

One such explanation is that coping with anticipated stigma is preferably dealt with independently by college students, where communicating this stress leads to more symptoms of anxiety by the individual reporting high anticipation of stigma. Research

has shown that adaptive coping (e.g., reflecting on possible solutions, taking action to resolve the situation) has not been a significant predictor of symptoms of anxiety, while maladaptive coping (e.g., withdrawal from stressful situation, avoid seeking solutions) has a significant positive association with symptoms of anxiety (Mahmoud, Staten, Hall, & Lennie, 2012). With this said, it may be important for students who value coping independently with stressors to understand the effects of adaptive and maladaptive coping. Additionally, for students who are interested in communicating their stress with their partner, it may be important for those students to understand the differences between overt and concealed stressors.

The present study suggested that perceptions of “tangible support” may lead to high symptoms of anxiety. Interestingly, when students reported high anticipation of stigma, while nonsignificant, symptoms of anxiety increased regardless of high or low use of positive DC. These results may indicate that undergraduate students, when experiencing anticipated stigma stress, may not communicate one’s stress, and asking for help from their partner, as an effective means of alleviating symptoms of anxiety; rather, this may increase reported symptoms.

An additional explanation for these counterintuitive findings is related to the skewness of the data, in that there was a significant negative skew in partner’s EF-SDC (-.90), PF-SDC (-.87), and delegated DC (-.87). These results indicate that the present sample reported high perception of partner’s positive DC, which suggests that married, undergraduate students tend to perceive consistent high positive DC from their partners. Students may not perceive unique support targeted toward anticipated stigma stress, thus resulting in nonsignificant interactions as seen in the present study.

Negative DC. Perceptions of partner's negative DC were hypothesized to be associated with higher reported symptoms of anxiety, which is based on previous literature that suggests negative DC has been positively associated with symptoms of anxiety (Bodenmann, Meuwly, & Kayser, 2011). Contrary to hypotheses, results did not show a significant interaction of negative DC on the association between anticipated stigma stress and symptoms of anxiety. In addition to a nonsignificant interaction, results indicated that there was no significant main effect of negative DC on symptoms of anxiety. These results are surprising considering the above-mentioned research that has suggested significant effects of negative DC on well-being. Similar to the skew in positive DC, these results may be due to the sample's low report of partner's negative DC and skewness in the data (.88). Perceptions of partner's negative DC were reported to be below average, which could account for the low variability in reported symptoms of anxiety. With this said, students in the current sample did not seem to perceive negative DC behaviors by their partner, which may have led to nonsignificant results. Considering that higher reports of negative DC have been associated with clinical couples as compared to couples in community samples (Bodenmann, 2000) and the present study consisted of community samples, it may be that negative DC is not as prevalent in this sample.

Limitations

This study is not withstanding limitations. First, it is important to note that the majority of the sample identified as White/Caucasian (81.4%) and straight/heterosexual (92.5%) which may limit the generalizability of the findings in this study. In the USA, symptoms of anxiety have been reported lower by White college students as compared to

marginalized groups (e.g., Hispanic American, Asian American), suggesting that there are racial differences of reported symptoms of anxiety (Lesure-Lester & King, 2004). Further, individuals with a marginalized sexual identity have reported higher symptoms of anxiety as compared to those who identify as heterosexual (e.g., Gilman, Cochran, Mays, Hughes, et al., 2001). As such, the current sample may not be generalizable to other samples or the general population of married undergraduate college students.

Additionally, the present study allowed participants to complete the research survey as long as they were students in the United States; college region in the USA as well as type of institution (e.g., classification type; The Carnegie Classification of Institutions of Higher Education, 2015) was not assessed. Therefore, it may be important to note the location of students that took the survey in order to be able to generalize according to region and type of university as well. Further, although the present study controlled for religiosity, it was not assessed whether students were enrolled in a predominantly religious institution or a general public/private institution. While there were nonsignificant main effects of religiosity in the regression models, it may still be important to understand the similarities and differences between these types of universities. Due to religiosity being associated with greater psychological well-being (Harris, Schoneman, & Carrera, 2002), it may be that students attending a religious institution are less likely to anticipated stigma based on their marital status. In doing so, the present study could have determined if anticipated stigma stress differed from one institution to the other based on the university's demographic information (e.g., type of institution, geographic location, religious affiliation, etc.).

It is also important to consider limitations of the present study's design and measurement. Data for this study were collected entirely online, and while there are benefits to online research, such as avoidance of experimenter biases and item-branching capabilities (e.g., Reips, 2002), there are potential concerns to consider, such as validity of the data collection as well as the data itself (Schillewaert & Meulemeester, 2005). While primary investigator took additional means in order to address these confounds (e.g., added filters to HITs via Amazon MTurk, screening survey, removing multiple responses), it is still important to be aware of the possible limitation of online data collection (e.g., multiple responses, technical error).

Regarding the measures selected for the study, Link and colleagues' (2015) Anticipation of Rejection scale was used and modified to target the present study's question of interest (i.e., stigma based on being married in college); the Anticipation of Rejection scale targeted those who held concealed stigmatized identities regarding mental health diagnoses. While Cronbach's alpha indicated strong internal validity ($\alpha = 0.92$), it is important to note that the scale has not been previously validated to assess anticipation of stigma based on marital status specifically. Additionally, previous researchers have identified presence of anticipated stigma by observing the proportion of participants who responded above the midpoint of the scale (Link et al., 2015). The midpoint of the Anticipation of Rejection scale is 21 (range = 7 – 35), corresponding to answering “sometimes” to each of the seven items in the scale. In the present study, about fifteen (15.4%) percent of respondents were above the midpoint regarding anticipation of stigma, suggesting that reports of anticipated stigma based on marital status were slightly common. By analyzing the data as previous researchers have, it may be difficult to

determine that the current sample had a low, moderate, or high experience of anticipated stigma stress due to the high number of participants excluded from analyses.

The English version of the Dyadic Coping Inventory (DCI; Randall et al., 2015) was used to measure perceptions of partner's dyadic coping behaviors. Traditionally, the DCI has been used as a general measure of how couples cope with stress, not necessarily how partners help one another cope with specific stressors (e.g., anticipation of stigma). It is unclear whether the respondents were addressing how they cope with stress associated with anticipated stigma stress, or how they cope with general stress with their partner. Given this, it may be beneficial for future researchers to identify means of specifying the DCI to identify how couples cope with specific stressors. By adjusting the DCI to be more specific to the study's specific stressor, the results from the dyadic coping measure may be more easily determined to be associated with how the couple copes with that specific stressor.

Lastly, this study utilized cross-sectional data from one partner in a romantic relationship, which may limit the validity of the present study due to understanding one partner's perceptions alone. Much of the literature on understanding moderating associations of dyadic coping has been examined within a dyadic context (see Falconier et al., 2015, for a review). By collecting data from both partner reports, researchers are able to assess both actor (effects of perceived DC on own reported outcomes) and partner (effects of actual reported DC on their partner's outcomes) effects. Researchers can then compare these perceptions of partner to self-report from the partner, which may lead to a better understanding of how the couple copes with the stressor.

Future Directions

Despite its limitations, the current study offers promising directions for future research. First, this is among one of the few studies that has examined the anticipation of a stigma as a stressor. Understanding the experience of covert stressors such as anticipated stigma may allow researchers and mental health providers to better understand the experiences of marginalized undergraduate students and provide an empirically-based approach to additional literature and mental health services. Also, it is important to consider additional populations (e.g., demographic differences such as race, religion, sexual identity, etc.) that may experience anticipated stigma stress and how these individuals or couples cope with that unique stressor. In better understanding the impact of anticipated stigma stress, researchers may be able to provide mental health counselors with empirically-based practices in addressing anticipated stigma stress in myriad populations and regarding a variety of unique stressors.

Additionally, this was the first study to examine anticipated stigma stress and DC in the context of traditionally-aged undergraduate students. Anticipated stigma has been studied regarding covert stressors such as mental illness (e.g., Quinn et al., 2014), and the present study added to the literature of anticipated stigma stress regarding marital status. It is crucial to continue to add to the literature regarding anticipated stigma stress to better understand marginalized populations that hold concealed stigmatized identities, therefore potentially holding a covert stressor. Considering how couples can cope with these stressors, prior literature has focused on stress and DC in the contexts of married couples (e.g., Buck & Neff, 2012) or committed heterosexual couples (e.g., Bodenmann, Meuwly, & Kayser, 2011; Falconier et al., 2015). This research has tended to include participants

without age restriction (e.g., Buck & Neff, 2012) or that were not limited to a collegiate sample (e.g., Neff & Karney, 2007). The present study indicates some of the first implications of how young, new couples cope with stress, and the results add to the understanding of how individuals may utilize DC to cope with stress that has deleterious effects on symptoms of anxiety. It is important to continue to research this population of traditionally-aged, married, undergraduate students as well as other marginalized populations due to the lack of current understanding of how these individuals cope with stress.

Implications for Mental Health Counselors

The present study indicates that married undergraduate students experience anticipated stigma stress for being married, which is associated with reported symptoms of anxiety. For married students experiencing this type of stressor, it is critical to understand how to best serve these students in the counseling setting. There has been an approximate 50% increase in college students seeking mental health treatment over the past year, and since 2010, there has been a significant eighty percent (82%) increase in students seeking mental health services (Center for Collegiate Mental Health, 2016). These data suggest that college mental health counselors are in higher demand now more than ever.

Prior research has indicated the importance of teaching couples DC strategies in order to help cope with stress in a clinical setting (e.g., Randall, Bodenmann, Molgora, & Margola, 2010; Kayser, 2005), although these methods have not specifically focused on stress associated with the anticipation of stigma as an external stressor. Given this, it may be important to identify how these methods may be useful by providing these trainings to

mental health providers who offer services to married, undergraduate students that may be experiencing anticipated stigma stress. The Couples Coping Enhancement Training (CCET) is a prevention program for couples that includes psychoeducation as well as strategies for stress management and coping for couples dealing with stress (Bodenmann & Shantinath, 2004). CCET teaches couples to engage in as well as enhance their DC skills. With this said, CCET may be useful for mental health counselors to use in order to teach students how to best manage and cope with their stress in the context of their relationship.

Further, with the understanding that perception of partners' DC is associated with one's own symptoms of anxiety (Regan et al., 2014), components of CCET may be useful in individual counseling as well. For example, one of the main components of CCET is teaching individuals how to improve both individual and dyadic coping skills (Bodenmann & Shantinath, 2004). In a longitudinal study examining the effectiveness of CCET with nonclinical couples, Bodenmann and Cina (2000) found that individual coping, in addition to dyadic coping, promoted marital stability. Married, undergraduate students experiencing anticipated stigma stress may benefit from the use of these additional coping techniques (i.e., increased coping skills), as well as psychoeducation about how to cope with stress provided in CCET. Taken together, clinicians may be able to utilize components of CCET to teach clients how to cope with stress individually and dyadically in order to assist the client in learning how to communicate with their partner more clearly about their own stress experiences. This may, in turn, lower these students' symptoms of anxiety with these skills utilized outside of the therapeutic setting.

Along with CCET, one therapeutic approach that may be beneficial to utilize when working with married, undergraduate students couples is the Coping-Oriented Couples Therapy (COCT; Bodenmann, Plancherel, Beach, Widmer, et al., 2009). COCT is based in cognitive behavioral marital therapy, based on the systemic-transactional model (Bodenmann, 1997) that highlights working with behavioral exchange techniques and training in communication and problem solving. COCT has been shown to be an effective means of lowering psychological distress as well as producing significant improvements in partners' expressed emotions in couples where one partner was clinically depressed, which has not been seen in other therapeutic approaches (e.g., cognitive-behavioral therapy, interpersonal psychotherapy; Bodenmann et al., 2009). Although previous research has examined the effectiveness of utilizing COCT with couples wherein one partner has been diagnosed with depression (Bodenmann et al., 2009), components of COCT may also be effective for other diagnoses, such as anxiety. COCT has been shown to be effective in community samples regarding relationship satisfaction (e.g., Bodenmann, Pihet, Shantinath, Cina, et al., 2006), which as discussed prior has been associated with symptoms of anxiety. With this said, depressed as well as non-depressed married, undergraduate students may benefit from understanding individual and joint stress reactions and learn to cope with daily stressors more effectively.

A main goal of COCT is to foster a better understanding of individual as well as joint stress reactions and how to cope more effectively (Bodenmann et al., 2009). While COCT has been identified as a couples' therapy (Bodenmann et al., 2009), there are components of this approach that may be beneficial in individual counseling. These

components are similar to those found in CCET, such as teaching clients about the systemic approach to stress communication. This systemic approach to stress communication acknowledges and teaches couples about the give-and-take influence of the stress and coping process that partners undergo in order to deal with stressors. As such, clients may value understanding the stress and coping process in order to identify means of incorporating various techniques in their own relationship, especially as some may seek to learn how to cope with anticipated stigma stress. Taken together, it may be important for mental health counselors to understand the importance of adaptive, independent coping strategies (e.g., problem-solving) as well as the harmful effects of maladaptive coping (e.g., avoidance) in counseling married, undergraduate students.

Conclusion

The present study indicates promising results with regard to married, undergraduate students and their experiences with anticipated stigma stress. Traditionally-aged married students experience significantly high symptoms of anxiety as compared to those who report low anticipated stigma stress, and there are specific forms of coping that partners can engage in to help mitigate these associations (e.g., delegated dyadic coping). Individuals who hold concealed, marginalized statuses may be susceptible to experiencing anticipated stigma stress (Link et al., 2015), which has been associated with symptoms of anxiety (Quinn et al., 2014). One way for partners to help one another cope with these stressors is by engaging in dyadic coping (Falconier, Randall, & Bodenmann, 2016). Future research is needed in this area.

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Table 1
Descriptive Statistics for Demographic Study Variables

	Percentage
Racial/Ethnic Identification	
White/Caucasian	81.4%
Black/African American	8.3%
Hispanic/Latinx	5.8%
Asian/Pacific Islander	5.1%
Native American or American Indian	1.9%
Other	1.3%
Collegiate Standing	
Freshman/first-year	2.0%
Sophomore/second-year	17.2%
Junior/third-year	31.8%
Senior/fourth-year	35.1%
Fifth year or higher	13.9%
Sexual Identity	
Straight/heterosexual	92.5%
Bisexual	5.4%
Gay/lesbian	1.4%
Other	0.7%
Yearly Household Income	
less than \$10,000	15.2%
\$10,000-\$24,999	31.1%
\$25,000-\$49,999	36.4%
\$50,000-\$74,999	11.9%
\$75,000-\$99,999	4.6%
\$100,000 or more	0.7%
Religiosity	
Christianity	42.4%
Unaffiliated	26.5%
Mormon	23.2%
Buddhism	2.6%
Judaism	2.6%
Islam	1.3%
Other	1.3%

Table 2
Descriptive Statistics for Study Variables

	M	SD
Anticipation of stigma	14.86	6.22
Symptoms of anxiety	2.29	0.63
Positive Dyadic Coping		
EF-SDC	4.25	0.76
PF-SDC	3.87	0.74
Delegated DC	3.65	0.72
Negative DC	1.94	0.82
Control Variables		
Religiosity	4.38	2.26
Relationship satisfaction	4.34	0.61

Notes: Relationship length presented in years. EF-SDC = emotion-focused supportive dyadic coping; PF-SDC = problem-focused supportive dyadic coping; DC = dyadic coping. Religiosity mean reflects similarly with means reported from this religiosity measure (Poteat & Mereish, 2012).

Table 3
Correlations among Study Variables

	1	2	3	4	5	6	7
1. Anticipation of stigma							
2. Symptoms of anxiety	.32**						
3. EF-SDC	-.20*	-.11					
4. PF-SDC	-.21*	-.10	.54**				
5. Delegated DC	-.35**	-.04	.49**	.49**			
6. Negative DC	.26**	.21*	-.68**	-.44**	-.45**		
7. Religiosity	-.34**	-.21**	.24**	.29**	.42**	-.29**	
8. Relationship satisfaction	-.31**	-.15	.67**	.55**	.43**	-.60**	.33**

Notes: Subscales are perceptions of partner's use of DC: *EF-SDC* = emotion-focused supportive dyadic coping; *PF-SDC* = problem-focused supportive dyadic coping; DC = dyadic coping.

** $p < .01$

* $p < .05$

Table 4

Anticipated Stigma Stress and Symptoms of Anxiety Model Results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Intercept	.64	.03		21.35	.000
<i>Controls</i>					
Religiosity	-.01	.01	-.12	-1.34	.183
Relationship satisfaction	-.02	.05	-.03	-0.36	.723
<i>Main Effect</i>					
Anticipated stigma stress	.02	.01	.25	2.96	.004

Table 5

Anticipated Stigma Stress and EF-SDC on Symptoms of Anxiety Model Results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Intercept	.64	.03		21.15	.000
<i>Controls</i>					
Religiosity	-.01	.01	-.11	-1.31	.193
Relationship satisfaction	-.02	.07	-.04	-.33	.739
<i>Main Effect</i>					
Anticipated stigma stress	.02	.01	.26	2.99	.003
Partner's EF-SDC	-.01	.05	-.03	-.24	.815
<i>Interactions</i>					
Anticipated stigma stress x EF-SDC	.01	.01	.10	1.19	.238

Note: EF-SDC = emotion-focused supportive dyadic coping

Table 6

Anticipated Stigma Stress and PF-SDC on Symptoms of Anxiety Model Results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Intercept	.64	.03		20.85	.000
<i>Controls</i>					
Religiosity	-.01	.01	-.12	-1.33	.184
Relationship satisfaction	-.02	.06	-.03	-.25	.800
<i>Main Effect</i>					
Anticipated stigma stress	.02	.01	.25	2.91	.004
Partner's PF-SDC	.00	.05	.00	.01	.991
<i>Interactions</i>					
Anticipated stigma stress x PF-SDC	.00	.01	-.03	-.31	.758

Note: PF-SDC = problem-focused supportive dyadic coping

Table 7

Anticipated Stigma Stress and Delegated DC on Symptoms of Anxiety Model Results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Intercept	.66	.03		21.41	.000
<i>Controls</i>					
Religiosity	-.01	.01	-.17	-1.91	.058
Relationship satisfaction	-.06	.06	-.10	-1.12	.263
<i>Main Effect</i>					
Anticipated stigma stress	.02	.01	.29	3.37	.001
Partner's delegated DC	.10	.05	.19	2.03	.045
<i>Interactions</i>					
Anticipated stigma stress x delegated DC	.01	.01	.18	2.27	.024

Note: DC = dyadic coping

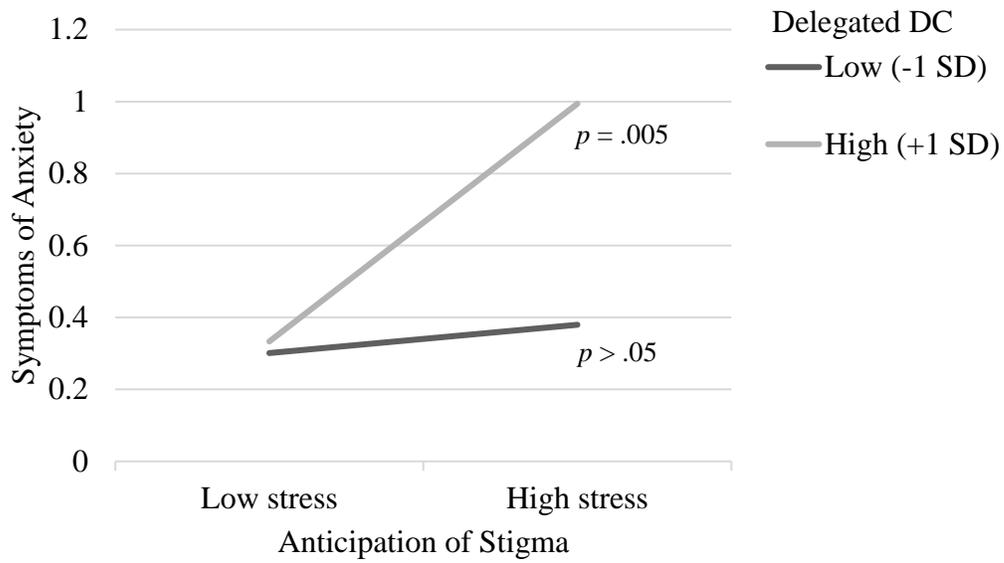
Table 8

Anticipated Stigma Stress and Negative DC on Symptoms of Anxiety Model Results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Intercept	.64	.03		20.85	.000
<i>Controls</i>					
Religiosity	-.01	.01	-.10	-1.15	.250
Relationship satisfaction	.03	.06	.04	.42	.674
<i>Main Effect</i>					
Anticipated stigma stress	.02	.01	.24	2.86	.005
Partner's negative DC	.07	.05	.15	1.48	.142
<i>Interactions</i>					
Anticipated stigma stress x negative DC	.00	.01	-.03	-.34	.731

Note: DC = dyadic coping

Figure 1. Delegated DC Moderates the Association between Anticipated Stigma Stress and Symptoms of Anxiety



Notes: Symptoms of anxiety have been transformed due to negative skew. DC = dyadic coping.

APPENDIX A
SCREENING SURVEY

1. What is your age (in years)?
 - a. Below 18 years
 - b. 18-24 years
 - c. 25-35 years
 - d. 36+ years
2. What age is your romantic partner (in years)?
 - a. Below 18 years
 - b. 18-24 years
 - c. 25-35 years
 - d. 36+ years
 - e. N/A
3. Are you currently enrolled in undergraduate studies?
 - a. Yes
 - b. No
 - c. Unsure
4. What is your relationship status?
 - a. Single
 - b. In a committed relationship
 - c. Married
 - d. Other
5. Do you have any children?
 - a. Yes
 - b. No

APPENDIX B
RESEARCH SURVEY

Anticipation of Rejection
(AR; Link et al., 2015)

Please record the appropriate answer for each item:

- 4 = Very Often
- 3 = Fairly Often
- 2 = Sometimes
- 1 = Almost Never
- 0 = Never

How often during the past three months, did...

1. You worry what other people might think about you because of the stigma of being married in college?
2. Worrying about what other people might think about you being married in college make you feel like hiding from other people?
3. You think that if you socialized with people they might say things about you being married in college that would hurt your feelings?
4. You worry that employers might not hire you if they knew you were married in college?
5. You worry that people think of you as a married college student and nothing else?
6. You feel that people might stop being your friend if they knew you were married in college?
7. You feel that people would look down on you because of you being married in college?

Depression Anxiety Stress Scale-21
Anxiety subscale
(DASS-21; Lovibond & Lovibond, 1996)

Please record the appropriate answer for each item:

0 = Did not apply to me at all

1 = Did not apply to me very much

2 = Applied to me a little

3 = Applied to me very much, or most of the time

In the past week...

1. I was aware of the action of my heart in the absence of physical exertion
2. I experienced difficulty breathing
3. I experienced trembling
4. I felt I was close to panic
5. I felt scared without any good reason
6. I was worried about situations in which I might panic and make a fool of myself
7. I was aware of dryness in my mouth

Dyadic Coping Inventory
(DCI; Bodenmann, 2008)

Please record the appropriate answer for each item:

- 1 = Not at all/very rarely
- 2 = Rarely
- 3 = Sometimes
- 4 = Often
- 5 = Very often

This scale is designed to measure how you and your partner cope with stress. Please indicate the first response that you feel is appropriate. Please be as honest as possible. There are no wrong answers.

This section is about how YOU communicate your stress to your partner.

- 1. I let my partner know that I appreciate his/her practical support, advice, or help
- 2. I ask my partner to do things for me when I have too much to do.
- 3. I show my partner through my behavior when I am not doing well or when I have problems.
- 4. I tell my partner openly how I feel and that I would appreciate his/her support.

This section is about what YOUR PARTNER does when you are feeling stressed.

- 5. My partner shows empathy and understanding.
- 6. My partner expresses that he/she is on my side.
- 7. My partner blames me for not coping well enough with stress.
- 8. My partner helps me to see stressful situations in a different light.
- 9. My partner listens to me and gives me the opportunity to communicate what really bothers me.
- 10. My partner does not take my stress seriously.
- 11. My partner provides support, but does so unwillingly and without enthusiasm.
- 12. My partner takes on things that I normally do in order to help me out.
- 13. My partner helps me analyze the situation so that I can better face the problem.
- 14. When I am too busy, my partner helps me out.
- 15. When I am stressed, my partner tends to withdraw.

This section is about how YOUR PARTNER communicates when he/she is feeling stressed.

- 16. My partner lets me know that he/she appreciates my practical support, advice, or help.
- 17. My partner asks me to do things for him/her when he has too much to do.
- 18. My partner shows me through his/her behavior that he/she is not doing well or when he/she has problems.

19. My partner tells me openly how he/she feels and that he/she would appreciate my support

This section is about what YOU do when your partner is stressed.

20. I show empathy and understanding.
21. I express to my partner that I am on his/her side.
22. I blame my partner for not coping well enough with stress.
23. I tell my partner that his/her stress is not that bad and help him/her to see the situation in a different light.
24. I listen to my partner and give him/her space and time to communicate what really bothers him/her.
25. I do not take my partner's stress seriously.
26. When my partner is stressed I tend to withdraw.
27. I provide support, but do it so unwillingly and without enthusiasm because I think that he/she should cope with his/her problems on his/her own.
28. I take on things that my partner would normally do in order to help him/her out.
29. I try to analyze the situation together with my partner in an objective manner and help him/her to understand and change the problem.
30. When my partner feels he/she has too much to do, I help him/her out.

This section is about what YOU and YOUR PARTNER do when you are both feeling stressed.

31. We try to cope with the problem together and search for shared solutions.
32. We engage in a serious discussion about the problem and think through what has to be done.
33. We help one another to put the problem in perspective and see it in a new light.
34. We help each other relax with such things like massage, taking a bath together, or listening to music together.
35. We are affectionate to each other, make love and try that way to cope with stress.

This section is about how you evaluate your coping as a couple.

36. I am satisfied with the support I receive from my partner and the way we deal with stress together.
37. I am satisfied with the support I receive from my partner and I find as a couple, the way we deal with stress together is effective.

Religiosity/Spirituality Scale
(RSS; Poteat & Mereish, 2012)

Please answer the following questions with regard to your personal experience with religion on the following scale:

- 1 = strongly disagree
- 2 = disagree
- 3 = disagree slightly
- 4 = neither agree or disagree
- 5 = agree slightly
- 6 = agree
- 7 = strongly agree

1. Religion or spirituality is an important part of my life
2. My religious or spiritual beliefs influence my decisions in life
3. I devote significant time to thinking about my religious or spiritual beliefs

Relational Assessment Scale
(RAS; Hendrick, 1988)

Please record the appropriate answer for each item:

A (1) = Poorly

B (2) = between poorly and average

C (3) = Average

D (4) = between average and extremely well

E (5) = Extremely well

Please answer the following questions regarding your satisfaction with your marriage

1. How well does your partner meet your needs?
2. In general, how satisfied are you with your relationship?
3. How good is your relationship compared to most?
4. How often do you wish you hadn't gotten in this relationship?
5. To what extent has your relationship met your original expectations:
6. How much do you love your partner?
7. How many problems are there in your relationship?

Demographics

1. Gender
 - a. Male
 - b. Female
 - c. Other
 - i. _____
2. What is your sexual orientation?
 - a. Bisexual
 - b. Gay/lesbian
 - c. Straight/heterosexual
 - d. Other
 - e. Unsure
3. Please specify your ethnicity
 - a. White/Caucasian
 - b. Hispanic/Latinx
 - c. Black/African American
 - d. Native American or American Indian
 - e. Asian/Pacific Islander
 - f. Other
 - i. _____
4. What will your collegiate standing be for Fall 2016?
 - a. First-year/freshman
 - b. Second-year/sophomore
 - c. Third-year/junior
 - d. Fourth-year/senior
 - e. Fifth-year or higher
5. Length of marriage (in months)
 - a. _____
6. Length of total relationship in months (romantic relationship and marriage)
 - a. _____
7. How long did you and your spouse know each other prior to marriage (in months)?
 - a. _____
8. How old is your spouse?
 - a. _____
9. With which religion do you most identify?
 - a. Christianity
 - b. Islam
 - c. Hinduism
 - d. Buddhism
 - e. Judaism
 - f. Mormon
 - g. Unaffiliated (e.g., atheist, agnostic)
 - h. Other
 - i. _____

10. Where do you fall on the scale with regard to social issues?

1 2 3 4 5 6 7
Conservative Moderate Liberal

11. What is your total household income?

- a) Less than \$10,000
- b) \$10,000 - \$24,999
- c) \$25,000 - \$49,999
- d) \$50,000 - \$74,999
- e) \$75,000 - \$99,999
- f) \$100,000 or more

IN SEPARATE SURVEY (to ensure anonymity of data responses)

For MTurk participants:

Thank you for your time in completing this survey! Your participation is much appreciated. Please create a unique code and enter same code *exactly* into HIT on Amazon MTurk page. NOTE: It is important that you hit the Next button so your responses are recorded!

Your MTurk ID: _____

Your unique ID code: _____

For all other participants:

Thank you for your time in completing this survey! Your participation is much appreciated. Please enter your email below in order to receive your \$2.50 Amazon.com gift card. NOTE: It is important that you hit the Next button so your responses are recorded!

Your email address: _____

APPENDIX C
IRB APPROVAL

Ashley Randall
 CLS – Counseling and Counseling Psychology
 480/727-5312
 Ashley.K.Randall@asu.edu

Dear Ashley Randall:

On 8/9/2016 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Coping with Stress Associated with Anticipated Stigma: The Role of Dyadic Coping for Married Undergraduate Students
Investigator:	Ashley Randall
IRB ID:	STUDY00004655
Category of review:	(7)(b) Social science methods, (7)(a) Behavioral research
Funding:	Name: Letters and Sciences, College of (CLS)
Grant Title:	
Grant ID:	
Documents Reviewed:	<ul style="list-style-type: none"> • Recruitment duties, Category: Recruitment Materials; • Consent form, Category: Consent Form; • Protocol, Category: IRB Protocol; • married UG stress_MasterList.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • CITI certification 2, Category: Other (to reflect anything not captured above); • Screening questionnaire, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • research questionnaire.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Recruitment flyer, Category: Recruitment Materials; <p>Page 2 of 2</p> <ul style="list-style-type: none"> • CITI certification 1, Category: Other (to reflect anything not captured above);

The IRB approved the protocol from 8/9/2016 to 8/8/2017 inclusive. Three weeks before 8/8/2017 you are to submit a completed Continuing Review application and required attachments to request continuing approval or closure. If continuing review approval is not granted before the expiration date of 8/8/2017 approval of this protocol expires on that date. When consent is appropriate, you must use final, watermarked versions available under the “Documents” tab in ERA-IRB. In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Shelby Messerschmitt

APPENDIX D
INFORMED CONSENT

Title of research study: Coping with Stress Associated with Anticipated Stigma: The Role of Dyadic Coping for Married Undergraduate Students

Investigator: Shelby Messerschmitt-Coen (PI) and Ashley K. Randall, Ph.D. (Faculty PI)

Why am I being invited to take part in a research study?

You are being invited to take part in a research study because you are between the ages of 18-24 years, married with no children, and are currently an undergraduate student.

Why is this research being done?

The purpose of the research is to gain a better understanding of the stressors married undergraduate students may experience, and what coping styles you and your partner may use to cope with this stress.

How long will the research last?

This study will take place in two parts: (1) screening survey and (2) research survey. We expect that individuals will spend 1 minute completing the screening survey, and 20 minutes completing the research survey.

How many people will be studied?

We expect about 130 individuals will participate in this research study.

What happens if I say yes, I want to be in this research?

You are asked to complete an electronic research survey that will include self-report questionnaires related to your experience as a married undergraduate student as well as about your married relationship.

Once you have completed the screening survey and research survey, you will be compensated \$2.50 for your time.

What happens if I say yes, but I change my mind later?

You can leave the research at any time and it will not be held against you.

Is there any way being in this study could be bad for me?

There are no known risks from taking part in this study; however, as with any research, there is some possibility that you may be subject to risks that have not yet been identified.

Will being in this study help me in any way?

We cannot promise any benefits to you or others from your taking part in this research. However, some participants may find it helpful to answer questions about the stress they face and how they may cope together with their partner.

What happens to the information collected for the research?

All information from this study will be held confidential. Only the Primary Investigators will have access to your online responses to survey items. You will not be asked to

provide any personal information. The results of this research study may be used in reports, presentations, and publications.

Who can I talk to?

If you have any questions concerning the research study, please contact the research team at: (Principle Investigator: Shelby Messerschmitt-Coen, shelby.asuresearch@gmail.com, or Faculty Principle Investigator, Dr. Ashley K. Randall, Ashley.K.Randall@asu.edu).

This research has been reviewed and approved by the Social Behavioral IRB. You may talk to them at (480) 965-6788 or by email at research.integrity@asu.edu if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

This form explains the nature, demands, benefits and any risk of the project. By clicking “I Agree” you agree knowingly to assume any risks involved. Remember, your participation is voluntary. You may choose not to participate or to withdraw your consent and discontinue participation at any time without penalty or loss of benefit. In clicking “I Agree”, you are not waiving any legal claims, rights, or remedies. A copy of this consent form can be sent to you upon request.

I have read the CONSENT FORM above and agree with all the terms and conditions. I acknowledge that by completing the survey, I am giving permission for the investigator to use my information for research purposes. Additionally, I also allow other researchers access to my de-identified data (upon approval by the PIs, Shelby Messerschmitt-Coen and Ashley K. Randall, Ph.D.).

- **“I Agree”**
- **“I Do Not Agree”**

APPENDIX E
RECRUITMENT FLYER

Married? Stressed?

- *Want to share about your experience as a married college student?*
- *Are you currently an undergraduate student with no children?*
- *Are you and your spouse both between the ages of 18-24 years?*



If you answered “yes” then you may be eligible to participate in a research study on understanding stress and coping strategies in couples. During this study you will complete:

- A screening survey (~1 minute to complete)
- An online survey about your experience of being a married undergraduate student (~20 minutes to complete).

Upon completion of the study, you will be compensated \$2.50 for your time and participation.

For further information please contact:
shelby.asuresearch@gmail.com