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# Psychological Abuse in Romantic Relationships and Associated Mental Health Outcomes

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PSYCHOLOGICAL ABUSE IN ROMANTIC RELATIONSHIPS AND ASSOCIATED  
MENTAL HEALTH OUTCOMES

By

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Thesis

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## ABSTRACT

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Psychological Abuse in Romantic Relationships and Associated Mental Health Outcomes

Chairperson: Christine Fiore, Ph.D.

### Abstract Content

Many researchers hypothesize that experiencing psychological abuse in a romantic relationship may be more common than experiencing other forms of intimate partner violence (IPV) because psychological abuse often co-occurs with the presence of physical violence in a relationship and may be likely to occur on its own (Follingstad & Rogers, 2014; Hennings & Klesges, 2003). Some data have linked the experience of psychological abuse in a romantic partnership with mental health outcomes such as depression, anxiety, and somatization (Rogers & Follingstad, 2014). Although, few empirical studies have examined the unique experiences of individuals who have endured psychological abuse alone (without co-occurring physical or sexual abuse) in a romantic relationship. This study aimed to understand how mental health impacts may differ for this population. Additionally, this study was interested in understanding how labeling one's romantic relationship experiences as "psychologically abusive" may influence the relationship between experiencing psychological abuse and current levels of depression, anxiety, and posttraumatic stress symptoms. Results from a sample of 331 college students attending a Northwestern university indicated that those who have experienced psychological abuse alone in their most problematic romantic relationship reported significantly greater symptoms of depression, anxiety, and posttraumatic stress than those who have not experienced abuse in their relationships, while those who have experienced multiple forms of abuse in their most problematic romantic relationship reported the greatest impact on current mental health symptoms. Moderation analyses suggested that labeling one's romantic relationship as "psychologically abusive" influenced the degree to which experiencing psychological abuse was predictive of depression, anxiety, and posttraumatic stress symptoms. The results of this study have added to the body of literature on IPV prevalence rates by observing the occurrence of psychological abuse alone among a sample of college students. Findings from this sample have also provided some evidence for a continued need to investigate the impact of psychological abuse, on its own, as a unique predictor of mental health symptomology.

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## Psychological Abuse in Romantic Relationships and Associated Mental Health Outcomes

### **Psychological Abuse**

Psychological abuse has been referred to as a plethora of terms throughout the literature on intimate partner violence (IPV) including psychological abuse, verbal abuse, emotional abuse, psychological aggression, and emotional or verbal maltreatment (Follingstad, 2007). The use of any one of these terms may have different implications for meaning and the severity of the abuse endured. For example, when the terms “psychological aggression” and “psychological abuse” are compared, aggression implies a less severe form of attack, while abuse implies a more severe violation (Follingstad, 2007). Using these terms as though they are interchangeable in empirical study suggests that they all have the same impact on the recipient. The terms verbal, emotional, and psychological abuse all imply different types of abuse tactics or strategies. The interchangeable use of these terms in research has created a construct validity problem for researchers and clinicians who are interested in determining the unique effects of psychological abuse on an individual and/or in determining empirically supported interventions for those who have experienced psychological abuse in intimate relationships. The frequent use of these terms as interchangeable within psychological research is not only unclear to consumers of IPV literature, but it reflects the uncertainty among researchers as how to best conceptualize and assess this form of abuse in intimate partner relationships (DeHart, Follingstad, & Fields, 2010; Follingstad, 2007; James & MacKinnon, 2010).

In an annual review of IPV literature, Jordan, Campbell, & Follingstad (2010) purported that psychological abuse in the context of a romantic relationship can be conceptualized as behaviors that fall past a certain threshold on a continuum of psychologically aggressive or problematic relationship behaviors. Follingstad (2011) suggested that psychologically abusive behaviors should qualify as extreme violations of relationship behavior that surpass

psychological aggression and problematic relationship interactions. Harmful intent, frequency of a behavior (or a pattern of behavior), perception of harm, and the severity of an individual act have been proposed as indicators that a relationship interaction has shifted into the realm of psychological abuse (Jordan, Campbell, & Follingstad, 2010). Jordan, Campbell, & Follingstad (2010) note that more research is needed to determine what factors would move a behavior past the threshold from problematic relationship behavior into psychological abuse. Using this conceptualization of psychological abuse, some examples of psychologically abusive behaviors may range from name-calling, swearing at, insulting, and threatening abandonment, to more acute behaviors, such as outbursts of anger, withholding affection, deception, manipulation, and threats or intimidation (Follingstad, 2011; James & MacKinnon, 2010). When using the term psychological abuse, this study will be referring to Follingstad and colleagues (2011) conceptualization of psychological abuse in romantic relationships, as egregious violations of relationship behavior.

Due to definitional/conceptual problems involved with studying psychological abuse, researchers have also experienced difficulty in determining a reliable and valid way to measure psychological abuse (Follingstad, 2007). Many different self-report measures have been generated in an attempt to more accurately assess and understand psychological abuse experiences. The first of which was the *Verbal Aggression* subscale on the *Conflict Tactics Scale* (CTS) (Straus, 1979). The CTS was revised in 1996, along with revisions to its subscales, and is now referred to as the CTS-2, which has become the most widely used measure to assess both physical and psychological abuse experiences (Marshall, Panuzio, Makin-Byrd, Taft & Holtzworth-Munroe, 2011; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Another commonly used measure to assess psychological abuse was created by Tolman (1999), called the

*Psychological Maltreatment of Women Scale*. More recently, Follingstad and colleagues have developed two scales that assess psychological abuse and psychological aggression on a continuum, with psychological abusive behaviors surpassing a threshold of extreme relationship behaviors (Follingstad, Coyne, & Gambone, 2005; Follingstad, 2011).

Although definitional and methodological problems exist for the study of psychological abuse, research continues to demonstrate a need to pursue the study of psychological abuse in intimate partnerships. IPV continues to be a prevalent health concern in the United States, as recent estimates from the National Intimate Partner and Sexual Violence Survey (NISVS), conducted in 2010-2012, found that 37.3% of women and 30.9% of men in the United States have experienced sexual violence, physical violence, or stalking by an intimate partner at some point in their lifetime (Smith, Chen, Basile, Gilbert, Merrick, Patel, Walling, & Jain, 2017). While all forms of IPV surveyed occurred at strikingly high rates, the most common form of IPV likely to be experienced over the course of one's lifetime was psychological aggression, with nearly half of all women (47.1%) and half of all men (47.3%) reporting having experienced at least one psychologically aggressive behavior by an intimate partner during their lifetime (Smith et al., 2017). While the NISVS specified psychological aggression as different from psychological abuse (Smith et al., 2017), many of the behaviors measured as psychological aggression by this survey may be considered psychologically abusive by the Follingstad and colleagues conceptualization (2011) (e.g., coercive control). NISVS results indicated that lifetime prevalence rates for those who identified as women and experienced expressive aggression were 39.3%, while 39.7% of U.S. women reported experiencing coercive control by an intimate partner (Smith et al., 2017). For those who identified as male in the survey, expressive aggression by an intimate partner was reported by 31.1% and 41.1% of men reported

experiencing coercive control by an intimate partner during their lifetime. These results suggest that psychological aggression and abuse may be experienced at high rates across gender (Smith et al., 2017).

Other prevalence data for psychological abuse by an intimate partner has been collected by Follingstad and Rogers (2014). These researchers conducted a nationally representative study on a sample of U.S. citizens in order to gather prevalence data on psychological abuse experienced in romantic relationships and to further understand the perceived emotional and behavioral impacts of psychological abuse in participants' "worst" cohabitating romantic partnerships (Follingstad & Rogers, 2014). Out of the 649 participants, 84% of participants reported experiencing one or more of the 42 psychologically abusive behaviors measured in their worst cohabitating relationship (Follingstad & Rogers, 2014). The majority of participants (71%) reported experiencing at least 3-42 of the 42 psychologically abusive behaviors (Follingstad & Rogers, 2014). "Refusing to speak as a way to punish or hurt you" was reported as the most commonly experienced psychologically abusive behavior (53%) (Follingstad & Rogers, 2014). Only 16% reported experiencing none of the behaviors on the *Measure of Psychologically Abusive Behaviors* (MPAB) in their "worst" cohabitating relationship (Follingstad & Rogers, 2014). This recent prevalence data on psychological abuse in participants' "worst" cohabitating romantic relationships, not only augments the findings of NISVS, but also suggests that experiencing psychological abuse in a cohabitating relationship may be more normative than experiencing no psychological abuse.

Follingstad and Rogers' study provides some evidence that using psychologically abusive tactics in cohabitating romantic partnerships may be a fairly common practice in problematic relationships, along with various other abusive and problematic relationship behaviors (2014).

Many researchers hypothesize that rates of psychological abuse in romantic relationships may even be greater than rates of physical abuse because psychological abuse can occur on its own (without the presence of other abusive relationship behaviors), and it almost always occurs in the presence of physical abuse (e.g., Hennings & Klesges, 2003). However, neither the Follingstad & Rogers (2014) nor NISVS (2017) indicated in their samples the rates at which psychological abuse occurred without the presence of other forms of abuse (e.g., psychological abuse alone) (Smith et al., 2017). Despite the likelihood of psychological abuse occurring outside of the context of other forms of relationship abuse (e.g., physical and sexual), the prevalence and experiences of individuals who have suffered psychological abuse only by a romantic partner has not been well studied. Therefore, it seems prudent for IPV researchers to understand how common this experience is in romantic partnerships and investigate the potential distinctive mental health impact associated it.

### **Mental Health Impacts**

The mental health impact of physical abuse and/or sexual abuse in romantic relationships has been well studied and documented in the body of IPV literature. In a recent review of IPV literature, Jordan, Campbell, and Follingstad (2010) cited several studies that link the experience of IPV (primarily physical abuse in some combination with psychological abuse, and/or sexual abuse) with clinical levels of depression, anxiety, and posttraumatic stress symptoms (e.g. Dutton, Goodman, & Bennett, 2001; Follingstad, 2009). Additionally, studies examined in this literature review link IPV to substance use disorders, dissociation, somatization, suicidality, hopelessness, and low self-esteem (Jordan, Campbell, and Follingstad, 2010). However, the impact on mental health due to experiencing psychological abuse in a romantic relationship has not been evaluated as well (Rogers & Follingstad, 2014). Jordan, Campbell, and Follingstad's

(2010) review of the IPV literature suggests that understanding the unique effects of psychological abuse by a romantic partner has been difficult, due to the practice of aggregating the effects psychological and physical abuse together to evaluate the impact of IPV on mental health (Jordan, Campbell, and Follingstad, 2010).

Follingstad and colleagues reported that some studies examining the impact of psychological abuse by a romantic partner on mental health have demonstrated mixed results in terms of depression, anxiety, physical health, and self-esteem (Jordan, Campbell, and Follingstad, 2010). A large amount of the literature links the preceding experience of psychological abuse in an intimate relationship to significant levels of depressive symptoms following the experience, although some studies have not indicated that clinical levels of depression have been reached (Follingstad, 2009; Marshall, 2001; Migeot & Lester, 1996; Taft, O'Farrell, Torres, Panuzio, Monson, Murphy, & Murphy, 2006). Orava, McLeod, and Sharpe (1996) found that when they controlled for the amount of verbal abuse received by women in an intimate relationship, the relationship between physical abuse and depression no longer existed. Dutton, Goodman, and Bennett (2001) showed similar results, in a study of African-American women. They found that when the experience of psychological abuse was controlled, the relationship between physical abuse, sexual abuse, and injury no longer significantly predicted depression (Dutton, Goodman, & Bennett, 2001). Taken in concert, these studies suggest that there may be a connection between the experience of psychological abuse in a romantic partnership and subsequent symptoms of depression beyond the impact of other forms of abuse, such as physical violence.

More recently, two recent studies have examined the impact of psychological abuse by a romantic partner on mental health (Follingstad & Rogers, 2014; Rogers & Follingstad, 2014). In

the previously mentioned nationally representative study of psychologically abusive behaviors in romantic relationships, the authors were also interested in looking at the relationship between frequency of psychological abuse and mental health outcomes, which they labeled emotional impact (EI) and behavioral impact (BI) (Follingstad & Rogers, 2014). The authors hypothesized that the frequency of psychologically abusive behaviors experienced in the romantic relationship would be related to stronger emotional and behavioral impacts, across type of abuse and specific behaviors (Follingstad & Rogers, 2014). Follingstad and Rogers (2014) found an association between the frequency of psychologically behaviors experienced in one's worst cohabitating relationship and the EI/BI impact on the individual. The results also indicated that specific psychologically abusive behaviors produced a stronger association with EI/BI (Follingstad & Rogers, 2014). Follingstad and Rogers (2014) suggest that frequency of abuse may be associated with the impact on the recipient, but high frequency of abusive behavior is not necessary to produce a strong EI/BI impact on the recipient (Follingstad & Rogers, 2014). In some cases, experiencing a severe act of psychological abuse by a romantic partner could also produce a strong EI/BI impact (Follingstad & Rogers, 2014).

In a follow-up study using the same sample data, Rogers and Follingstad (2014) examined the effects of experiencing psychological abuse in a romantic relationship on specific mental health outcomes, such as depression, anxiety, and somatization symptoms. The authors proposed that there would be a difference in the variables that predict clinical levels of mental health outcomes, as opposed to the variables that would predict symptom levels of mental health outcomes (Rogers & Follingstad, 2014). Women's experience with psychological abuse was examined as a predictor of symptoms and clinical levels of depression, anxiety, and somatization, as well as suicidal ideation and life functioning (Rogers & Follingstad, 2014). The

authors found that psychological abuse accounted for a significant portion of the variance in almost all mental health outcomes (Rogers & Follingstad, 2014). Specifically, frequency of psychological abuse experienced in the relationship was predictive of both symptom and clinical (diagnosable) levels of anxiety, somatization, and depression, along with other variables measured (Rogers & Follingstad, 2014). The authors found that difficulty in life functioning and suicidal ideation were also significantly predicted by psychological abuse experienced (Rogers & Follingstad, 2014). Two other variables that the authors found to frequently contribute to large portions of the variance in predicting several mental health outcomes, included a perceived negative change in one's traits as a result of experiencing psychological abuse, and a pre-existing, problematic relationship schema of feeling socially isolated and/or alienated (Rogers & Follingstad, 2014). These two studies suggest that experiencing psychological abuse by a romantic partner may be contributing to specific mental health outcomes (e.g., depression, anxiety, somatization symptoms, and suicidality), but these studies do not examine if these mental health outcomes would vary in the absence of other forms of abuse, such as physical abuse.

In addition to the experience of psychological abuse in a romantic relationship predicting mental health outcomes, very few studies have examined how the frequency and severity of psychologically abusive behaviors may affect mental health outcomes. Follingstad and Rogers (2012) suggest that previous research on psychological abuse indicates that not all psychologically abusive behaviors will have the same impact on women, due to varying severity levels of behaviors. The authors believe that a high frequency of psychological abuse experienced in a relationship will not necessarily result in worse mental health outcomes for women, if the severity level of the behavior is low (Follingstad & Rogers, 2012). Therefore,

these authors conducted a study designed to survey the differences on mental health and other outcomes between women who have experienced a high amount of psychological abuse, in their current romantic relationship, and women who experienced a low amount of psychological abuse, in their current romantic relationship (Follingstad & Rogers, 2012). Results indicated that there were not significant differences on mental health outcomes, reactions to psychological abuse, and vulnerability factors between the low abuse group and the group of women experiencing no psychological abuse (Follingstad & Rogers, 2012). These results suggest that women who experience infrequent and less severe amounts of psychological abuse, in their current romantic relationships may be more similar to women in relationships who report experiencing no psychological abuse in terms of mental health outcomes and vulnerability factors (Follingstad & Rogers, 2012). Women in the high frequency psychological abuse category reported having experienced a wider range of psychologically abusive behaviors and experiencing the most severe psychological actions at a higher mean frequency (Follingstad & Rogers, 2012). In addition, the high abuse group of women participated in the problematic relationship longer, on average, than women experiencing lower prevalence of psychological abuse (Follingstad & Rogers, 2012). The researchers conclude that these findings suggest that the experience of women in the low and high prevalence groups seems to be quantitatively and qualitatively different (Follingstad & Rogers, 2012). Further study of the impact of psychological abuse on mental health and other non-clinical outcomes is necessary to determine if psychological abuse alone predicts mental health outcomes, and how those outcomes may differ from psychological abuse experienced in the presence of physical abuse.

Collectively, this body of work provides some evidence to connect psychological abuse experiences in romantic relationships to both subclinical and clinical levels of depression,

anxiety, and somatic complaints. It also suggests that in examining how psychological abuse may impact one's mental health, it is important to consider both the frequency and severity of psychologically abusive behaviors experienced in the romantic relationship. While these studies have linked psychological abuse perpetrated by a romantic partner to certain mental health outcomes, it remains unclear as to what mental health effects may be present for populations who have only experienced psychological abuse in a romantic partnership (no physical or sexual abuse) and how those effects may differ from people who have experienced multiple forms of abuse in an intimate partnership.

### **Labeling Psychological Abuse in the Relationship**

In studying the impact of psychological abuse in romantic relationships, whether some individuals label their relationship as “abusive” or “not abusive” may have substantial implications for mental health outcomes and treatment. Recipients of psychological abuse do not often recognize these behaviors as abusive because there are not often outward signs, such as the bruises, scars, and broken bones which may accompany physical abuse. Also, there are often no legal consequences for frequent forms of psychologically abusive behaviors in intimate partnerships (Follingstad, 2009; Goldsmith & Freyd, 2005). Goldsmith and Freyd (2005) reported that very few victims in their sample who reported experiencing emotionally abusive situations, identified themselves as having been “abused.” Follingstad and Rogers (2014) reported similar findings in their national prevalence study. Even though a large portion of participants reported experiencing 3 or more psychologically abusive behaviors, in their worst romantic relationship, 31% of participants labeled their partner as not abusive at all (Follingstad & Rogers, 2014).

Follingstad and Dehart (2000) even demonstrated that trained mental professionals do not agree on labeling behaviors as psychologically abusive. Researchers found that clinicians and those from other related professions relied more on frequency of behavior and duration of exposure for evaluating abusiveness of behaviors, while laypersons focused on whether evident harm was present to the receiver of psychological abuse (Follingstad & Dehart, 2000; Follingstad, Helff, Binford, Runge, & White, 2004). Follingstad and Rogers (2014) found that rating a partner as more psychologically abusive was positively associated with frequency of behaviors and the emotional impact (EI) and behavioral impact (BI) reported (Follingstad & Rogers, 2014). Through regression analysis, the researchers found that emotional impact predicted the degree to which participants rated their partner as psychologically abusive (Follingstad & Rogers, 2014). These findings suggested that an individual's mental health impact after experiencing psychological abuse in a problematic relationship influenced their subjective perception of whether the relationship was abusive. It is unclear from these findings whether one's subjective perception of their abuse experiences (e.g., how they label their relationship) may impact the effect that psychological abuse has on mental health.

### **The Current Study**

One purpose of the current study was to understand how often psychological abuse by a romantic partner is experienced without other forms of abuse present in the relationship in a college sample. Another goal of this study was to examine the impact of experiencing psychological abuse (alone) on participants' mental health, as compared to individuals who have experienced multiple forms of abuse in their romantic relationships and to individuals who have experienced no abuse in their romantic relationships. Lastly, this study aimed to add to the literature by further examining how one's perception of their relationship as "abusive" (e.g., labeling) may moderate the impact of these experiences on their mental health.

**Hypotheses 1a, 1b, 1c:** It is thought that psychological abuse may be a significant driving factor in predicting adverse mental health outcomes in abusive relationships (Follingstad, 1990; Tolman, 1992; Orava, McLeod, & Sharpe, 1996; Dutton, Goodman, & Bennett, 2001; Jordan, Campbell, and Follingstad, 2010; Follingstad & Rogers, 2012; Rogers & Follingstad, 2014). Therefore, it was predicted that experiencing psychological abuse alone (without the co-occurrence of physical abuse and/or sexual abuse), would be associated with higher rates of adverse mental health outcomes (e.g., depression (1a), anxiety (1b), and posttraumatic stress symptoms (1c)) when compared to those who reported no abuse.

**Hypotheses 2a, 2b, 2c:** It was also expected that those who have experienced psychological abuse and additional forms of abuse (e.g., physical and sexual abuse) in their romantic relationships would report significantly higher rates of adverse mental health outcomes (e.g., depression (2a), anxiety (2b), and posttraumatic stress symptoms (2c)) than those who reported experiencing no abuse and psychological abuse only in their romantic relationships.

**Hypotheses 3a, 3b, 3c:** In order to further test this relationship, we expected that across all participants when we controlled for the variance due to psychological abuse experienced in their most problematic romantic relationship, the relationship between physical and/or sexual abuse experienced and depression (3a), anxiety (3b), and posttraumatic stress symptoms (3c) would decrease.

**Hypotheses 4a, 4b, 4c:** Based on previous research findings (Follingstad & Rogers, 2014), we hypothesized that the degree to which participants label or perceive their romantic relationship as “psychologically abusive” will moderate the relationship between severity of psychological abuse experienced in a romantic relationship and adverse mental health outcomes,

by increasing the degree to which participants report experiencing depression (4a), anxiety (4b), and trauma symptoms (4c).

## Methods

### Participants

A power analysis for a MANOVA, using G\*Power software, with a medium effect size ( $f^2(V) = 0.0625$ ) at the 0.05 alpha level and with power set at 0.80, suggested that the number of participants should be approximately 135, for 3 response variables and 9 groups. Additionally, a power analysis for a linear multiple regression equation, using G\*Power software, with a medium effect size ( $f = 0.15$ ) at the 0.05 alpha level and with power set at 0.80, suggested that the number of participants should be approximately 77, for 3 predictors. Given that we ran several linear multiple regression analyses, we aimed to collect data from approximately 350 participants to ensure adequate power for our statistical analyses. Data was collected from 365 college students, who are enrolled in a psychology course at a Northwestern university. These participants were recruited using *Sona Systems* which posts research opportunities to university students taking psychology coursework. In exchange for participation, university students received credit for their psychology coursework. Twenty-seven participants were removed from the analyses due to excessive missing data and seven participants were excluded from the analyses because they did not meet study criteria (e.g., 18 and up and either in a current or past romantic relationship for at least 3 months). A determination was made by the faculty advisor for this study to proceed with data analysis for 331 participants with the understanding that adequate power may be a limitation in interpreting the results of our analyses.

Of the remaining sample of 331 students, participants ranged in age between 18-74 years of age, with 82.5% of participants reporting their age as 18-24 years ( $N = 273$ ). Ten percent of

participants reported their age as 25-34 years (N = 33), and 7.5% of participants fell between the ages of 35-74 (N = 25). The majority of participants in the sample identified as cisgender women (N = 236; 71.3%), followed by cisgender men (N = 86; 26%). Approximately 2.5% of participants identified as gender variant (e.g., transgender woman, gender queer, gender fluid, gender neutral, or two-spirit) (N = 8) and once participant did not report gender identity. Eighty-four percent of participants identified as White/Non-Hispanic (N = 280), 5% identified as biracial/multiracial (N = 17), 4% identified as Native American/Indigenous Peoples (N = 13), 3.3% identified as Hispanic/Latino (N = 11), 1.8% identified as Asian/Pacific Islander (N = 6), and less than one percent identified as Black (N = 3). About 10.3% of participants described their socioeconomic status (SES) as low income/poverty (N = 34), 31.2% of participants categorized their SES as working class/lower middle-class (N = 103), 36.4% described themselves as middle-class (N = 120), 19.1% indicated that they were upper middle-class (N = 63), and 2.7% described their SES as upper class/elite upper class (N = 9) (two participants did not report their SES). Approximately 38.5% of participants described growing up in a rural town/rural area (N = 127), 49.4% of participants grew up in a town/small city (N = 163), 10% of participants shared that they grew up in an urban-metropolitan city (N = 33), and 2.1% described growing up in a suburb, military base, or multiple locations (N = 7).

Most participants described their sexual orientation as heterosexual (87.3%), 6.7% of participants identified as bisexual, 2.4% described themselves as gay or lesbian, and 3.6% of participants identified as queer, pansexual, asexual, or questioning. Seventy-one percent of participants reported being in a current romantic relationship (N = 236), which they primarily characterized as heterosexual (N = 225), with 3.3% of participants indicating same-sex partnerships (N = 11). Of those participants in current romantic relationships, 69.5% described

their romantic relationship as a committed dating relationships ( $N = 164$ ), 8.9% described their relationship as a non-committed dating relationship ( $N = 21$ ), 1.7% characterized their romantic relationship as non-monogamous ( $N = 4$ ), 10.6% indicated that they were cohabitating with their romantic partner ( $N = 25$ ), 5.9% indicated that they were engaged ( $N = 14$ ), and 12.3% reported being married/divorced/separated to their current romantic partner ( $N = 29$ ) (participants could choose multiple relationship descriptors). Of the 236 participants in a current romantic relationship, the length of time spent in the relationship ranged from 1 month to 30 years, with an average relationship length of 32.5 months ( $SD = 57.1$ ).

Eighty percent of participants indicated that they had been in a previous romantic relationship, which they primarily characterized as heterosexual ( $N = 248$ ), with 6.4% of participants indicating same-sex partnerships ( $N = 17$ ). Of those participants who reported having past romantic relationships, 72.1% described their past relationship as a committed dating relationships ( $N = 191$ ), 18.1% described their previous relationship as a non-committed dating relationship ( $N = 48$ ), 2.3% characterized their past relationship as non-monogamous ( $N = 6$ ), 8.3% indicated that they had previously cohabitated with their romantic partner ( $N = 22$ ), 3.4% indicated that they were previously engaged ( $N = 9$ ), 6.8% reported being married/divorced/separated to their previous romantic partner ( $N = 18$ ), and less than 1% indicated that they were widowed after their previous relationship ( $N = 2$ ) (participants could choose multiple relationship descriptors). Of the 265 participants who reported participating in a previous romantic relationship, the length of time spent in the relationship ranged from 1 month to 18 years, with an average relationship length of 20.3 months ( $SD = 26.6$ ).

About 170 participants (51%) indicated that they are currently in a romantic relationship and have also had a past romantic relationship, while 66 participants (20%) shared that they are

in a current romantic relationship of at least 3 months with no previous romantic relationship.

Ninety-five participants (29%) reported that while they were not currently in a romantic relationship, they had at least one previous romantic relationship of 3 months or more.

Approximately 70% of the sample (N = 231) indicated that they answered the survey questions about a past romantic relationship, while 30% (N = 100) reported that they characterized their current relationship as the “most problematic” in order to answer survey questions. For participants who reported on a previous problematic relationship, the average length of time elapsed since the relationship ended was 32.5 months ( $SD = 57.0$ ).

## **Materials**

**Measure of psychologically abusive behaviors (MPAB) (Follingstad, 2011).** The MPAB is 42- item, self-report measure of egregious psychologically aggressive behaviors. This scale is believed to only tap into psychologically aggressive behaviors that would qualify as abusive, or on the extreme end of a psychologically aggressive behavior continuum (Follingstad, 2011). Each item includes the perpetrator’s intent, as to ensure that the behavior is deemed psychologically abusive to the participant. Participants were asked to respond to all items on the measure regarding the frequency in which the behavior occurred in their most “problematic” romantic relationship, using 9-point rating scale ( $1 = never$  to  $9 = daily$ ) (Follingstad, 2011). There are qualitative descriptions for all 9 response options (Follingstad, 2011). Additionally, the scale contains 14 categories of psychologically abusive behaviors (Follingstad, 2011). The categories include Sadistic Behavior, Threats to Intimidate, Isolation, Manipulation, Public Humiliation, Verbal Abuse, Wounding Regarding Sexuality, Treatment as an Inferior, Monitoring, Creating a Hostile Environment, Wounding Regarding Fidelity, Jealousy, Withholding Emotionally and Physically, and Controlling Partner’s Personal Decisions. Within

each of the 14 categories, the scale has 3 items that encompass different levels of severity (mild, moderate, and severe) (Follingstad, 2011). Cronbach's alphas for mild, moderate, and severe distinctions of item categories are all 0.94, respectively (Follingstad, 2011). The Cronbach's alpha for the entire scale was 0.979, with the average range of individual item correlations with the overall score being 0.72 (Follingstad, 2011). Split-half reliability produced internal consistency correlations of 0.96 (Follingstad, 2011). Females rated items higher than males, but no other demographics were associated with ratings. Follingstad (2011) also found a small association between the MPAB subscales and the BIDR, accounting for 1% to 2% of the variance. The scale has also been found to demonstrate some discriminant validity from the Experiences in Close Relationships-Revised (ECR-R) scale—the anxiety subscale on the ECR-R was not significantly related to ratings of psychological abuse; however, the avoidance subscale was significantly related to ratings of psychological abuse with correlations ranging from -0.13 to -0.18 (Follingstad, 2011). Within this sample, the Cronbach's alpha for the overall scale was 0.98, and the alphas for the mild, moderate, and severe subscales were 0.94, 0.93, 0.93, respectively. See Appendix A.

**Physical assault subscale and the sexual coercion subscale of the revised conflict-tactics scale 2 (CTS-2) (Straus, Hamby, Boney-McCoy, & Sugarman, 1996).** The CTS2 is one of the most widely used measures of abuse tactics in interpersonal relationships. It measures actions one takes to settle differences or disagreements with a partner and consists of four aggression-related subscales: psychological aggression (8 items), physical assault (12 items), sexual coercion (7 items) and injury (6 items), and one negotiation subscale (6 items). For this study, only the physical assault subscale and the sexual coercion subscale were administered to measure how often physical abuse and sexual abuse/coercion occurred in the participants' most

problematic relationship. Respondents answered how often each behavior occurred during the relationship. Response options include *happened before but not in the past 6 months; never; once; twice; 3–5 times; 6–10 times; 11–20 times; and 20 times*. The CTS-2 has good reliability, which ranges from 0.79 to 0.95 (Straus et al., 1996). Within this sample, the overall alpha for the physical assault subscale was 0.91. Items corresponding to physical assault perpetration had a 0.68 alpha, while items corresponding to physical assault experienced had a 0.93 alpha. Within this sample, the sexual coercion subscale had an overall alpha of 0.81. Items corresponding to sexual coercion perpetration had an alpha of 0.69, while items corresponding to sexual coercion experienced had an alpha of 0.83. See Appendix B.

**Labeling the relationship.** Participants were asked to think about their most “problematic” relationship and rate how “problematic,” “psychologically abusive,” “physically abusive,” and overall “abusive” this relationship was/is on a 9-point rating scale (e.g., *1 = not psychologically abusive at all, 9 = extremely psychologically abusive*). This 4-item rating scale of abusiveness was used to determine how participants perceived and labeled their romantic relationships. Within this sample, the Cronbach’s alpha for this scale was 0.91. See Appendix C.

**Patient health questionnaire (PHQ-9) (Kroenke et al., 2001).** This is a nine-item self-report measure that is typically used as a screening tool for depressive disorders. The scale assesses the number and frequency of symptoms of major depression. Each item corresponds to one of the nine diagnostic criteria for major depressive disorder. Participants were asked to rate themselves on how often each item occurred in the last two weeks. The rating scale ranges from *0 (Not at all) to 3 (Nearly every day)* and consisted of items such as “Feeling down, depressed, or hopeless.” PHQ-9 scores of 10-14 represent mild depression, scores of 15- 20 represent moderate to severe depression. The scale has demonstrated an alpha of 0.86–0.89 and a two-day test-retest

reliability of 0.84. Within this sample, the Cronbach's alpha for this scale was 0.90. See Appendix D.

**Beck anxiety inventory (BAI) (Beck & Steer, 1990).** The BAI is one of the most commonly used self-report measures of anxiety for adolescents and adults (Piotrowski, 1999). This instrument consists of 21 self-report items that are rated for the how often symptoms of anxiety have occurred on a 4-point scale ranging from 0 (*“not at all”*) to 3 (*“severely, I could barely stand it”*). Participants were asked to indicate how often each item had bothered them over the last month. Scores on the BAI of 0–21 represent low anxiety, scores in the range of 22 – 35 represent moderate anxiety, and a score of 36 and above represents potentially concerning levels of anxiety. The BAI has a Cronbach's  $\alpha = 0.92$  for internal consistency and  $\alpha = 0.75$  for 1-week test-retest reliability (Beck, Epstein, Brown, & Steer, 1988). The Cronbach's alpha for this sample was 0.94. See Appendix E.

**PTSD checklist –5 (PCL-5) (Blevins, Weathers, Davis, Witte, & Domino, 2015).** The PCL-C is a 20-item self-report measure of the DSM-5 symptoms of PTSD and was derived from previous iterations of the PCL (e.g. PCL-M, PCL-C, PCL-S) (Blevins et al., 2015). The wording of the PCL-5 reflects changes made in the diagnostic criteria of PTSD from DSM-IV-TR to DSM-5. This measure asked participants to rate how much they were bothered by symptoms of PTSD on a 0-4 scale (*0 = Not at all, 1 = A little bit, 2 = Moderately, 3 = Quite a bit, and 4 = Extremely*) in the last month. The authors suggest scores over 33 may indicate posttraumatic stress but emphasize that this measure alone is not meant to diagnose PTSD (Blevins et al., 2015). The PCL-5 exhibited an internal consistency of  $\alpha = 0.94$  and test-retest reliability of  $r = 0.82$ . (Blevins et al., 2015). Within this sample, the Cronbach's alpha was 0.95. See Appendix F.

**Demographic information questionnaire.** Each participant completed several questions relating to their demographic information. Items included participants' gender identity, age range, ethnicity/race, current and past relationship status, length of current and past relationships, etc. See Appendix G.

## **Procedure**

Three-hundred and sixty-five participants were recruited in exchange for research credit. Students were asked to come to a classroom on campus, in the presence of 1-2 trained researchers who verbally provided instructions for how to complete the study, in addition to the self-guided instructions provided on each computer screen. Each participant was directed to an individual computer room and participants were asked to read an informed consent form explaining the purpose of the study. See Appendix H. After agreeing to anonymously participate in the study by clicking an "I agree" checkbox on the informed consent screen, participants were directed to complete measures through an online survey program called Qualtrics. The participants completed questionnaires which measure the dependent variables (depression, anxiety, and posttraumatic stress symptoms) first to ensure that responses to measures of abuse experiences did not significantly impact their responses. The order in which dependent variable measures appeared on Qualtrics was randomized by using the randomization algorithm in Qualtrics to control for order effects. Participants then completed measures related to the independent variables and moderator variables. Participants were asked to answer these survey questions regarding their most "problematic" relationship to ensure the likelihood of capturing abusive behaviors (Follingstad & Rogers, 2014). The order in which independent and moderator variable measures appeared on Qualtrics was randomized in the same manner to control for order effects. After the completion of all other measures, participants answered questions on a

demographic survey to ensure that reporting on demographic information did not impact the study results.

At least 1-2 trained researchers were present during all administrations of measures in case any participants displayed signs of distress while completing the survey. A risk-protocol was created by the researcher in cases of reported current suicidal ideation. See Appendix I. This protocol involved creating a warning message in Qualtrics to alert researchers if a participant endorsed current suicidal ideation during the survey. In nineteen cases in which participants endorsed current suicidal ideation, the primary researcher conducted a Linehan Risk Assessment and Management Protocol (LRAMP) (See Appendix J) and safety plan in a private room with that participant, as well as, contacted the faculty advisor for this study in order to obtain consultation. In two cases of reported suicidality, the primary researcher walked the participant to the Northwestern university's on-call counseling crisis services. If immediate risk for suicidal behavior was assessed, the researcher would have called 9-1-1 emergency services, although this did not occur with any of the participants in this sample. Additionally, a referral list of counseling services and a debriefing form was provided to all participants upon completion of the measures. See Appendix K. Data were exported from Qualtrics and analyzed using a statistical software program, IBM SPSS statistics version 25.

## **Results**

In this sample of college students, only 38 participants (11.5%) reported experiencing no instances of psychological abuse in their most problematic relationship. Even when one instance of psychological abuse was included, only 15% of participants indicated that they experienced little-to-no psychological abuse in their most problematic relationship (N = 50). Overall, 85% of participants in this sample indicated that they had experienced two or more instances of

psychological abuse in their most problematic romantic relationship and 50% reported experiencing 20 or more instances of psychological abuse in these problematic relationships on a yearly basis ( $N = 166$ ). (See Figure 1 for a summary of psychological abuse prevalence rates in this sample.) The mean amount of psychological abuse, as reported on the MPAB, experienced in this sample was approximately 89.54 ( $SD = 63.07$ ), although participants scores ranged from 42 (no psychological abuse) to 326 on the MPAB. Eighty-two percent of participants indicated that they experienced one or more “mild” acts of psychological abuse ( $M = 32.41$ ;  $SD = 22.94$ ), while 85% endorsed experiencing one or more “moderate” acts of psychological abuse in their most problematic relationship ( $M = 30.78$ ;  $SD = 21.72$ ). Sixty-three percent of participants shared that they experienced two or more “severe” acts of psychological abuse in their most problematic relationship ( $M = 26.34$ ;  $SD = 19.34$ ), and 26% of participants indicated experiencing 14 or more severe psychologically abusive behaviors on a yearly basis. A one-way analysis of variance (ANOVA) was conducted to test for significant differences between cisgender women, cisgender men, and gender variant individuals on psychological abuse experienced. Due to a violation of the assumption of homogeneity of variances, the Welch Robust Equality of Means test was conducted and is reported as the F statistic. Results indicated that there were no significant differences between these groups on psychological abuse experienced in their most problematic relationship ( $F(2, 18.725) = 2.213, p = .137, \eta^2 = 0.191$ ), although the mean psychological abuse reported by cisgender women ( $M = 92.91$ ;  $SD = 68.57$ ), and gender variant individuals ( $M = 103.63$ ;  $SD = 67.98$ ) suggested a trend towards greater psychological abuse experienced in these problematic relationships.

Thirty-eight percent ( $N = 125$ ) of this sample endorsed experiencing one or more instances of physical violence in their most problematic relationship on a yearly basis, while

most of the sample reported experiencing no physical abuse in their most problematic relationships (62%). Thirty-two percent of participants also acknowledged that they had perpetrated one or more acts of physical violence against their most problematic romantic partner (N = 106). Approximately 44% of college students in this sample indicated that they had experienced one or more sexually coercive acts in their most problematic romantic relationship (N = 146), while 21% endorsed that they had perpetrated one or more sexually coercive acts against their romantic partner during their most problematic relationship (N = 70). (See Figures 2 & 3 for a summary of physical and sexual abuse prevalence rates in this sample.) Fifty-five percent of participants reported experiencing at least one or more acts of psychological abuse, in addition to at least one or more instances of physical and/or sexual abuse in their most problematic relationship (N = 184). In this sample, not a single participant reported experiencing physical abuse without the co-occurrence of at least one psychologically abusive behavior in their most problematic relationship.

Participants were placed into groups based on their total scores on the MPAB and the CTS subscales (physical aggression and sexual coercion). Participants who scored 0 on both CTS subscales and  $\leq 42$  on the MPAB were included in the no abuse/control group (N = 33), while participants who scored 0 on the CTS subscales and  $\geq 42$  on the MPAB were added to the psychological abuse only group (N = 114). The multiple abuse group included participants who scored  $> 0$  on one or both of the CTS subscales and  $> 42$  on the MPAB (N = 184). Pearson Chi-Square analyses were completed to test for significant differences between these groups on demographic variables (e.g., gender identity, age, SES, sexual orientation, race/ethnicity, relationship status). No significant differences were found between groups across these variables.

### **Psychological Abuse Only Group**

Thirty-five percent of the sample reported experiencing one or more instances of psychological abuse alone (with no co-occurring physical or sexual abuse) in their most problematic romantic relationship ( $N = 114$ ). Of the individuals who reported experiencing only psychological abuse in their most problematic relationship (no other forms of abuse present), total scores on the MPAB ranged from 43 to 177, with an average of  $M = 61.2$  ( $SD = 25.6$ ). For this portion of the sample, average severity of psychological abuse experienced was indicated by subscale means—*mild* ( $M = 21.86$ ;  $SD = 10.13$ ), *moderate* ( $M = 21.27$ ;  $SD = 9.49$ ), and *severe* ( $M = 18.03$ ;  $SD = 6.79$ ). Participants in this group on average experienced 8 different types of psychologically abusive behaviors out of 42 ( $SD = 6.35$ ), with a range from 1 to 30 types of psychologically abusive behaviors. The most commonly experienced psychologically abusive behaviors reported by participants in this group were romantic partners refusing to speak to them as a way to punish or hurt them (61%), romantic partners continuing to act very upset (e.g., pouted, stayed angry, gave you the silent treatment) until they did what he/she wanted them to do (57%), and romantic partners acting very upset because he/she felt jealous if they spoke to or looked at any person (50%).

### **Multiple Abuse Group**

Fifty-five percent of participants reported experiencing at least one or more acts of psychological abuse, in addition to at least one or more instances of physical and/or sexual abuse in their most problematic relationship ( $N = 184$ ). Rates of psychological abuse experienced in this group as reported on the MPAB were  $M = 115.65$  ( $SD = 71.94$ ), physical abuse reported on the CTS-2 was  $M = 5.90$  ( $SD = 10.099$ ), and sexual abuse experienced was  $M = 5.38$  ( $SD = 6.899$ ). Severity rates for psychological abuse experienced in this group as indicated by MPAB

subscales included *mild* ( $M = 42.24$ ;  $SD = 25.65$ ) *moderate* ( $M = 39.68$ ;  $SD = 24.66$ ) and *severe* ( $M = 33.70$ ;  $SD = 22.82$ ). Participants in this group on average experienced 19 different types of psychologically abusive behaviors out of 42 ( $SD = 11.69$ ). The most commonly experienced psychologically abusive behaviors reported by participants in this group were the same items as reported by the psychological abuse only group (only at higher frequencies), with the addition of a romantic partner “acting rude toward, gossiping about, or telling lies about your family and friends to discourage you from spending time with them” (67%), “treated you as useless or stupid as a way to make you feel inferior” (64%), and “trying to prevent you from speaking to or looking at any person who could be a potential romantic partner for you” (63%) also occurring at high rates. T-test results indicated that the multiple abuse group experienced significantly greater rates of psychological abuse than the psychological abuse only group,  $t(248) = -9.365$ ,  $p > .001$ ,  $d = 1.01$ , across all severity levels (equal variances between these two groups were not assumed, as Levene’s test indicated significant differences in homogeneity of variances).

## **Hypotheses Tests**

### **Mental Health Outcomes Across Groups**

A multivariate analysis of variance (MANOVA) was conducted to determine if any statistically significant differences in current levels of depression, anxiety, and posttraumatic stress symptoms existed between the no abuse (control) group, the psychological abuse only group, and the multiple abuse group. Pillai’s Trace statistic was used to interpret the overall significance of the MANOVA, as Box’s Test of Equality of Covariance Matrices indicated that the assumption of homogeneity of variances between groups may have been violated ( $F(12, 38265.704) = 9.778$ ,  $p < .001$ ). An overall  $F(6, 654) = 9.081$ ,  $p < .001$ ,  $\eta^2 = 0.077$ , revealed statistically significant differences amongst these three groups on mean PHQ-9, BAI, and PCL-5

scores, refer to Table 1 for a summary of means between groups. Due to the statistically significant MANOVA results, a series of one-way ANOVAs were conducted to further explore these group differences. See Table 2.

### **Depression Symptoms**

A one-way analysis of variance (ANOVA) was conducted to determine if any statistically significant differences in current levels of depression existed between the no abuse (control) group, the psychological abuse only group, and the multiple abuse group. Due to a violation of the assumption of homogeneity of variances, the Welch Robust Equality of Means test was conducted and is reported as the  $F$  statistic. An overall  $F(2, 127.304) = 23.692, p < .001, \eta^2 = 0.068$ , revealed significant differences amongst these groups on mean PHQ-9 scores. In order to test Hypothesis 1a, contrast tests in which equal variances were not assumed indicated that the average PHQ scores for those who had experienced psychological abuse only ( $M = 3.55$ ) in their most problematic romantic relationship were significantly greater than the mean PHQ scores for the no abuse control group ( $M = 1.48$ ),  $t(108.534) = 3.193, p = .002, d = 0.516$ . Additionally, the group of participants who experienced multiple forms of abuse in their most problematic romantic relationship ( $M = 5.66$ ), reported significantly higher levels of depression on the PHQ than the psychological abuse only group,  $t(290.335) = 5.953, p < .001, d = 0.384$  (Hypothesis 2a). While these hypotheses were statistically supported, it is important to note that mean scores across groups on the PHQ-9 did not reach clinically significant levels (see description of PHQ-9 above), although many individual participants reported clinically significant depression scores on the PHQ-9. Refer to Figure 4.

## **Anxiety Symptoms**

A one-way analysis of variance (ANOVA) was conducted to determine if any statistically significant differences in current levels of anxiety existed between the no abuse (control) group, the psychological abuse only group, and the multiple abuse group. Due to a violation of the assumption of homogeneity of variances, the Welch Robust Equality of Means test was conducted and is reported as the  $F$  statistic. An overall  $F(2, 132.642) = 28.253, p < .001, \eta^2 = 0.086$ , revealed significant differences amongst these groups on mean BAI scores. In order to test Hypothesis 1b, contrast tests in which equal variances were not assumed indicated that the average BAI scores for those who had experienced psychological abuse only ( $M = 5.49$ ) in their most problematic romantic relationship were significantly greater than the mean BAI scores for the no abuse control group ( $M = 1.82$ ),  $t(99.172) = 3.452, p = .001, d = 0.570$ . Additionally, the group of participants who experienced multiple forms of abuse in their most problematic romantic relationship ( $M = 9.93$ ), reported significantly higher levels of anxiety on the BAI than the psychological abuse only group,  $t(281.176) = 6.709, p < .001, d = 0.477$  (Hypothesis 2b). While these hypotheses were statistically supported, it is important to note that mean scores across groups on the BAI fell into the *low* range in terms of clinical significance (see description of BAI above), although many individual participants reported *moderate* and *severe* levels of anxiety on the BAI. Refer to Figure 4.

## **Posttraumatic Stress Symptoms**

A one-way analysis of variance (ANOVA) was conducted to determine if any statistically significant differences in current levels of posttraumatic stress symptoms existed between the no abuse (control) group, the psychological abuse only group, and the multiple abuse group. Due to a violation of the assumption of homogeneity of variances, the Welch Robust Equality of Means

test was conducted and is reported as the  $F$  statistic. An overall  $F(2, 169.693) = 75.493, p < .001, \eta^2 = 0.150$ , revealed significant differences amongst these groups on mean PCL-5 scores. In order to test Hypothesis 1c, contrast tests in which equal variances were not assumed indicated that the average PCL-5 scores for those who had experienced psychological abuse only ( $M = 11.04$ ) in their most problematic romantic relationship were significantly greater than the mean PCL-5 scores for the no abuse control group ( $M = 2.76$ ),  $t(139.173) = 5.480, p < .001, d = 0.821$ . Additionally, the group of participants who experienced multiple forms of abuse in their most problematic romantic relationship ( $M = 20.27$ ), reported significantly higher levels of posttraumatic stress symptoms on the PCL-5 than the psychological abuse only group,  $t(299.327) = 9.618, p < .001, d = 0.629$  (Hypothesis 2c). While these hypotheses were statistically supported, it is important to note that mean scores across groups on the PCL-5 did not reach clinically significant levels, although many individual participants reported clinically significant levels of posttraumatic stress on the PCL-5 (see description of PCL-5 above). Refer to Figure 4.

### **Physical Abuse, Sexual Abuse, and Mental Health Outcomes**

To test Hypothesis 3a, a hierarchical multiple regression model was created in which degree of depression was regressed on physical and sexual abuse experienced, while controlling for the variance in the dependent variable due to psychological abuse experienced. A visual analysis of the data using a P-P plot and scatterplot of the residuals illustrated no serious threats to the assumption of linearity. Multicollinearity was not found to be a threat given that tolerance ( $>.10$ ) and VIF ( $<10$ ) scores were in the acceptable ranges for all predictor variables.

Psychological abuse experienced was entered into the first block of the model in order to control for the variance in depression due to this predictor. In the first step of the model,  $R^2 = 0.129$  which was statistically significant ( $F(1, 329) = 48.729, p < .001, f^2 = 0.148$ ), indicating that

psychological abuse experienced in participants' most problematic relationship explained a significant proportion of the variance (13%) in their reported depression scores. Physical and sexual abuse experienced were added to the model in the second block as predictor variables and  $R^2 = 0.003$  was not significant ( $F(2, 327) = 0.493, p = .611$ ). Although the overall prediction model was significant ( $F(3, 327) = 16.521, p < .001, f^2 = 0.003$ ), a non-significant  $R^2$  change score of 0.003 indicated that physical and sexual abuse experienced by participants in their most problematic relationship did not explain a significant proportion of the variance in participants reported depression scores beyond the effects of psychological abuse experienced in these relationships.

To test Hypothesis 3b, a hierarchical multiple regression model was created in which degree of anxiety was regressed on physical and sexual abuse experienced, while controlling for the variance in the dependent variable due to psychological abuse experienced. A visual analysis of the data using a P-P plot and scatterplot of the residuals illustrated no serious threats to the assumption of linearity. Multicollinearity was not found to be a threat given that tolerance ( $>.10$ ) and VIF ( $<10$ ) scores were in the acceptable ranges for all predictor variables. Psychological abuse experienced was entered into the first block of the model in order to control for the variance in anxiety symptoms due to this predictor. In the first step of the model,  $R^2 = 0.173$  which was statistically significant ( $F(1, 329) = 68.981, p < .001, f^2 = 0.209$ ), indicating that psychological abuse experienced in participants' most problematic relationship explained a significant proportion of the variance (17%) in their reported anxiety scores. Physical and sexual abuse experienced were added to the model in the second block as predictor variables and  $R^2 = 0.009$  was not significant ( $F(2, 327) = 1.877, p = .155$ ). Although the overall prediction model was significant ( $F(3, 327) = 24.368, p < .001, f^2 = 0.012$ ), a non-significant  $R^2$  change score of

0.009 indicated that physical and sexual abuse experienced by participants in their most problematic relationship did not explain a significant proportion of the variance in participants reported anxiety scores beyond the effects of psychological abuse experienced in these relationships.

To test Hypothesis 3c, a hierarchical multiple regression model was created in which degree of posttraumatic stress symptoms was regressed on physical and sexual abuse experienced, while controlling for the variance in the dependent variable due to psychological abuse experienced. A visual analysis of the data using a P-P plot and scatterplot of the residuals illustrated no serious threats to the assumption of linearity. Multicollinearity was not found to be a threat given that tolerance ( $>.10$ ) and VIF ( $<10$ ) scores were in the acceptable ranges for all predictor variables. Psychological abuse experienced was entered into the first block of the model in order to control for the variance in posttraumatic stress symptoms due to this predictor. In the first step of the model,  $R^2 = 0.296$  which was statistically significant ( $F(1, 329) = 138.528, p < .001, f^2 = 0.420$ ), indicating that psychological abuse experienced in participants' most problematic relationship explained a significant proportion of the variance (30%) in their reported posttraumatic stress scores. Physical and sexual abuse experienced were added to the model in the second block as predictor variables and  $R^2 = 0.008$  was not significant ( $F(2, 327) = 1.763, p = .173$ ). Although the overall prediction model was significant ( $F(3, 327) = 47.566, p < .001, f^2 = 0.011$ ), a non-significant  $R^2$  change score of 0.008 indicated that physical and sexual abuse experienced by participants in their most problematic relationship did not explain a significant proportion of the variance in participants reported posttraumatic stress scores beyond the effects of psychological abuse experienced in these relationships. See Table 3 for a summary of these results.

### **Labeling the Problematic Relationship as “Psychologically Abusive”**

To test Hypothesis 4a, a hierarchical multiple regression equation was created in which the degree to which participants label their most problematic romantic relationships as “psychologically abusive” was tested as a moderator of the relationship between the predictor, severity of psychological abuse, and outcome variable, current depression symptoms. For this model, the predictor and moderator variables were centered to counteract the threat of multicollinearity and an interaction term, psychological abuse\*labeling, was created using the centered variables. A visual analysis of the data using a P-P plot and scatterplot of the residuals illustrated no serious threats to the assumption of linearity. Multicollinearity was not found to be a threat given that tolerance ( $>.10$ ) and VIF ( $<10$ ) scores were in the acceptable ranges for all predictor variables and the interaction term. Severity of psychological abuse experienced was entered into the first block of the model. In the first step of the model,  $R^2 = 0.129$  which was statistically significant ( $F(1, 327) = 48.433, p < .001$ ), indicating that severity of psychological abuse experienced in participants’ most problematic relationship explained a significant proportion of the variance in their reported depression scores. The degree to which participants labeled their most problematic relationship as “psychologically abusive” was added to the model in the second block as a predictor variable and  $R^2 = 0.159$  was also significant ( $F(1, 326) = 11.667, p = .001$ ). In the second block, an  $R^2$  change score of 0.030 indicated that the degree to which participants labeled their romantic relationships as “psychologically abusive” explained 3.0% of the variance in their depression scores beyond the effects of psychological abuse experienced in these relationships. The interaction between psychological abuse experienced and the degree to which participants labeled their relationship as psychologically abusive was entered into the third block to test for a moderation effect on depression scores. When the interaction

term was entered into the model,  $R^2 = 0.198$  was statistically significant ( $F(1, 325) = 15.70, p < .001$ ), indicating that the relationship between severity of psychological abuse experienced in participants' most problematic relationship and their reported depression scores was moderated by the degree to which they labeled their relationship as psychologically abusive. See Figure 5. The overall prediction model was also significant ( $F(3, 325) = 26.720, p < .001, f^2 = 0.0486$ ). The PROCESS macro plug-in for SPSS by Andrew Hayes (© 2012-2018) was used to further elucidate and visualize the interaction effect for this model. For those who labeled the level of psychological abuse in their problematic romantic relationships as low (ratings of 1), every one-point increase of psychological abuse experienced, increased depression scores on the PHQ-9 by 0.0618 points ( $b = 0.0618, t(325) = 3.36, p < .001$ ). For those who labeled the level of psychological abuse in their problematic romantic relationships at the mean (ratings of 3.75), every one-point increase of psychological abuse experienced, increased depression scores on the PHQ-9 by 0.0416 points ( $b = 0.0416, t(325) = 3.28, p = .001$ ). For those who labeled the level of psychological abuse in their problematic romantic relationships as high (ratings of 6.5), every one-point increase of psychological abuse experienced, increased depression scores on the PHQ-9 by 0.0214 points ( $b = 0.0214, t(325) = 2.42, p = .016$ ). Contrary to our hypothesis, this interaction model indicated that as the degree to which participants labeled their most problematic relationship as “psychologically abusive” increased, the size of the effect of psychological abuse experienced on participants' reported depression symptoms was less significant.

To test Hypothesis 4b, a hierarchical multiple regression equation was created in which the degree to which participants label their most problematic romantic relationships as “psychologically abusive” will be tested as a moderator of the relationship between the predictor,

severity of psychological abuse, and current anxiety symptoms. For this model, the predictor and moderator variables were centered to counteract the threat of multicollinearity and an interaction term, psychological abuse\*labeling, was created using the centered variables. A visual analysis of the data using a P-P plot and scatterplot of the residuals illustrated no serious threats to the assumption of linearity. Multicollinearity was not found to be a threat given that tolerance ( $>.10$ ) and VIF ( $<10$ ) scores were in the acceptable ranges for all predictor variables and the interaction term. Severity of psychological abuse experienced was entered into the first block of the model. In the first step of the model,  $R^2 = 0.173$  which was statistically significant ( $F(1, 327) = 68.562, p < .001$ ), indicating that severity of psychological abuse experienced in participants' most problematic relationship explained a significant proportion of the variance in their reported anxiety scores. The degree to which participants labeled their most problematic relationship as "psychologically abusive" was added to the model in the second block as a predictor variable and  $R^2 = 0.221$  was also significant ( $F(1, 326) = 20.000, p < .001$ ). In the second block, an  $R^2$  change score of 0.048 indicated that the degree to which participants labeled their romantic relationships as "psychologically abusive" explained 4.8% of the variance in their anxiety scores beyond the effects of psychological abuse experienced in these relationships. The interaction between psychological abuse experienced and the degree to which participants labeled their relationship as psychologically abusive was entered into the third block to test for a moderation effect on anxiety scores. When the interaction term was entered into the model,  $R^2 = 0.235$  was statistically significant ( $F(1, 325) = 5.821, p = .016$ ), indicating that the relationship between severity of psychological abuse experienced in participants' most problematic relationship and their reported anxiety scores was moderated by the degree to which they labeled their relationship as psychologically abusive. See Figure 6. The overall prediction model was also

significant ( $F(3, 325) = 33.245, p < .001, f^2 = 0.0183$ ). The PROCESS macro plug-in for SPSS by Andrew Hayes (© 2012-2018) was used to further elucidate and visualize the interaction effect for this model. Contrary to our hypothesis, this interaction model also indicated that as the degree to which participants labeled their most problematic relationship as “psychologically abusive” increased, the size of the effect of psychological abuse experienced on participants’ reported anxiety symptoms was less significant.

To test Hypothesis 4c, a hierarchical multiple regression equation was created in which the degree to which participants label their most problematic romantic relationships as “psychologically abusive” will be tested as a moderator of the relationship between the predictor, severity of psychological abuse, and current posttraumatic stress symptoms. For this model, the predictor and moderator variables were centered to counteract the threat of multicollinearity and an interaction term, psychological abuse\*labeling, was created using the centered variables. A visual analysis of the data using a P-P plot and scatterplot of the residuals illustrated no serious threats to the assumption of linearity. Multicollinearity was not found to be a threat given that tolerance ( $>.10$ ) and VIF ( $<10$ ) scores were in the acceptable ranges for all predictor variables and the interaction term. Severity of psychological abuse experienced was entered into the first block of the model. In the first step of the model,  $R^2 = 0.296$  which was statistically significant ( $F(1, 327) = 138.528, p < .001$ ), indicating that severity of psychological abuse experienced in participants’ most problematic relationship explained a significant proportion of the variance in their reported posttraumatic stress scores. The degree to which participants labeled their most problematic relationship as “psychologically abusive” was added to the model in the second block as a predictor variable and  $R^2 = 0.360$  was also significant ( $F(1, 326) = 32.450, p < .001$ ). In the second block, an  $R^2$  change score of 0.064 indicated that the degree to which participants

labeled their romantic relationships as “psychologically abusive” explained 6.4% of the variance in their posttraumatic stress symptom scores beyond the effects of psychological abuse experienced in these relationships. The interaction between psychological abuse experienced and the degree to which participants labeled their relationship as psychologically abusive was entered into the third block to test for a moderation effect on posttraumatic stress symptom scores. When the interaction term was entered into the model,  $R^2 = 0.377$  was statistically significant ( $F(1, 325) = 8.658, p < .001$ ), indicating that the relationship between severity of psychological abuse experienced in participants’ most problematic relationship and their reported posttraumatic stress scores was moderated by the degree to which they labeled their relationship as psychologically abusive. See Figure 7. The overall prediction model was also significant ( $F(3, 325) = 65.448, p < .001, f^2 = 0.0272$ ). The PROCESS macro plug-in for SPSS by Andrew Hayes (© 2012-2018) was used to further elucidate and visualize the interaction effect for this model. For those who labeled the level of psychological abuse in their problematic romantic relationships as low (ratings of 1), every one-point increase of psychological abuse experienced, increased posttraumatic stress scores on the PCL-5 by 0.1566 points ( $b = 0.01566, t(325) = 2.86, p = .004$ ). For those who labeled the level of psychological abuse in their problematic romantic relationships at the mean (ratings of 3.75), every one-point increase of psychological abuse experienced, increased posttraumatic stress scores on the PCL-5 by 0.1170 points ( $b = 0.1170, t(325) = 3.12, p = .002$ ). For those who labeled the level of psychological abuse in their problematic romantic relationships as high (ratings of 6.5), every one-point increase of psychological abuse experienced, increased posttraumatic stress scores on the PCL-5 by 0.0773 points ( $b = 0.0773, t(325) = 3.27, p = .001$ ). Contrary to our hypothesis, this interaction model indicated that as the degree to which participants labeled their most problematic relationship as “psychologically

abusive” increased, the size of the effect of psychological abuse experienced on participants’ reported posttraumatic stress symptoms was less significant.

## **Discussion**

### **Prevalence Rates of Psychological Abuse in Romantic Relationships**

One aim of this study was to expand the body of IPV literature by obtaining prevalence rates for psychological abuse by an intimate partner in a college sample and to further elucidate how often psychological abuse may be occurring in problematic relationships without other forms of abuse present, such as physical and sexual abuse. This study examined self-reports of 331 college students from a Northwestern university, the majority of whom identified as heterosexual, cisgender women between the ages of 18-24 years from a White/Non-Hispanic racial/ethnic background. These participants were asked to anonymously report their current levels of depression, anxiety, and posttraumatic stress symptoms, along with indicating psychological, physical, and sexual abuse experiences which occurred in their most problematic romantic relationship. While most participants reported that they were in a current romantic relationship (N = 236), most participants chose to describe abuse experiences that occurred in a past problematic romantic relationship (70%), with an average elapsed time since the relationship ended of 2.7 years (32.5 months). In this sample, 88.5% of participants reported experiencing one or more acts of psychological abuse in their most problematic romantic relationship on a yearly basis and 11.5% of participants denied experiencing any psychologically abusive behaviors in these relationships. The reported rates of psychological abuse experienced in participants’ most problematic romantic relationship in our sample were almost equivalent to rates of psychological abuse reported by cohabitating couples in the Follingstad and Rogers (2014) prevalence study. Rates of participants who reported experiencing no psychologically

abusive behaviors in their most problematic romantic relationship in this study were also like cohabitating couples who reported experiencing no psychologically abusive behaviors in their worst romantic relationship (Follingstad & Rogers, 2014). A comparison of rates of psychological abuse experienced (88.5%) to those who endorsed experiencing physical abuse (38%) and sexual abuse (44%) indicated that college students in this sample were more likely to report experiencing psychological abuse in their most problematic romantic relationship than other forms of IPV. This finding seems to be consistent with data from the National Intimate Partner and Sexual Violence Survey (NISVS) which indicated that psychological aggression was the most commonly experienced form of IPV experienced in romantic partnerships. Based on the sample findings, it is possible that college students are experiencing similar rates of psychological abuse in their most problematic romantic relationships as reported by cohabitating couples (Follingstad & Rogers, 2014) and greater rates of psychological abuse than those who completed the national prevalence data survey (Smith et al., 2017), although further study of this finding is needed.

This study also aimed to extend current prevalence data on psychological abuse perpetrated by a romantic partner by parsing participants into groups based on type of abuse experienced (e.g., no abuse, psychological abuse only, and multiple abuse groups), so that data could be obtained about those whom have experienced psychological abuse on its own (without other co-occurring forms of IPV) in problematic romantic relationships. In this study, 7 out of every 20 participants (35%) reported experiencing one or more instances of psychological abuse alone (with no co-occurring physical or sexual abuse) in their most problematic romantic relationship, while almost 1 out of every 2 participants (55%) reported experiencing multiple forms of abuse (psychological, physical, and/or sexual abuse) in their most problematic romantic

partnership. In this sample, not a single participant reported experiencing physical abuse without the co-occurrence of at least one psychologically abusive behavior in their most problematic relationship, which supports the work of other IPV researchers who have claimed that physical and psychological abuse almost always co-occur in abusive relationships (Hennings & Klesges, 2003). The findings from this college sample revealed that while psychological abuse is very likely to occur in the presence of physical abuse, it also has a relatively high likelihood of occurring on its own in the context of a problematic romantic partnership.

### **Psychological Abuse and Mental Health Impacts**

Because of the likelihood of psychological abuse occurring on its own in a romantic relationship, another aim of this study was to understand the unique impact that these experiences may have on college student's reported levels of depression, anxiety, and posttraumatic stress symptoms. Participants were placed into a no abuse group, a psychological abuse alone group, or a multiple abuse group based on their reported abuse experiences, and then mean scores on depression, anxiety, and posttraumatic stress symptoms were compared for statistical and clinical significance. Statistical analyses revealed that the multiple abuse group reported significantly greater levels of current depression, anxiety, and posttraumatic stress symptomology than both the psychological abuse alone group and the no abuse group. As predicted, the multiple abuse group experienced greater impacts across mental health symptoms. One possible explanation for this finding is that the combination of abuse effects in the multiple abuse group may have influenced participants' ratings of mental health symptomology in a manner that the no abuse group and psychological abuse alone group may did not experience. Alternatively, the additive possibility of physical or sexual violence in this group may have

increased the effect of psychological abuse on levels of depression, anxiety, and posttraumatic stress symptoms.

In keeping with the hypothesis that psychological abuse is a driving factor behind predicting adverse mental health outcomes for those who have experienced IPV, it could also be likely that participants in the multiple abuse group reported higher rates of depression, anxiety, and posttraumatic stress symptoms due to experiencing more frequent and severe forms of psychological abuse in their most problematic relationship, as compared to the psychological abuse alone group. There is some evidence to support the latter explanation as results from this sample indicated that the multiple abuse group experienced significantly greater rates of psychologically abusive behaviors across all severity levels (mild, moderate, and severe) than the psychological abuse alone group. Additionally, Follingstad and Rogers (2012) found that for women, the greater the frequency and severity of psychological abuse experienced in their romantic partnerships, the more likely participants were to report negative mental health outcomes. Given that most of this sample identified as cisgender women, severity and frequency of psychological abuse experienced in the multiple abuse group may have been influential in affecting their reported rates of depression, anxiety, and posttraumatic stress symptomology. Additionally, as hypothesized, statistical analyses showed significant differences between the psychological abuse alone group and the no abuse group on current levels of depression, anxiety, and posttraumatic stress symptoms. These findings suggest that those who experienced psychological abuse by a romantic partner on its own may be clinically unique from those who reported experiencing no IPV.

While these group differences were statistically significant, clinical levels of depression, anxiety, and posttraumatic stress levels were not reached on average by the psychological abuse

only group or the multiple abuse group. Several factors may have contributed to participants' mean subclinical levels of current depression, anxiety, and posttraumatic stress symptoms, including the average length of time elapsed since participants dissolved their past problematic relationships. Given that the majority of participants in this sample reported on abuse experiences that occurred in a past romantic relationship and there was an average 2.7-year gap between the cessation of these problematic relationships and participants' reports of their current mental health symptoms, the passage of time may have lessened the impact of abuse experiences on participants' levels of depression, anxiety, and posttraumatic stress symptoms. If time elapsed influenced participants' reported levels of mental health symptoms, it seems remarkable that statistically significant differences between the groups remained present after an average of 2.7 years post-relationship. While further study is needed to investigate this occurrence, this finding may speak to the long-term impacts of psychological abuse, even when it occurs by itself in a romantic partnership. It is also possible that a lack of clinical significance is reflective of studying generally well-adjusted college student sample as opposed to gathering data from a clinical population. Slightly elevated scores which do not yet fall into a clinical range for anxiety, depression, and posttraumatic stress symptoms may suggest that this population is at risk for further mental health concerns and the development of preventative interventions may be an important future consideration. Generally, these findings support our belief that those who experience psychological abuse in a romantic partnership are worth the focus of further empirical study outside of the context of co-occurring forms of IPV.

Another consideration may be that the severity and frequency of psychological abuse experienced on its own in a romantic relationship may be more predictive of subclinical levels of depression, anxiety, and posttraumatic stress symptoms than experiences of co-occurring forms

of IPV. The difference between experiencing psychological abuse on its own or experiencing it within the context of other forms of IPV may account for the variability in research findings regarding psychological abuse being predictive of both subclinical and clinical levels of mental health symptoms (Follingstad, 2009; Marshall, 2001; Migeot & Lester, 1996; Taft et al., 2006). Participants' current mental health symptoms across the abuse groups may have been impacted by their use of mental health services/intervention in between the end of their problematic romantic relationships and their participation in this study. While examining the impact of mental health services/intervention on participants' reported levels of depression, anxiety, and posttraumatic stress symptoms as a result of experiencing psychological abuse in an intimate partnership was not a primary focus of this study, our data suggest that 54% of participants in this sample indicated that they had sought some form of IPV service or mental health intervention as a result of their abuse experiences. Further research examining the impact of these additional variables on the relationship between experiencing psychological abuse in a romantic partnership and subclinical levels of depression, anxiety, and posttraumatic stress symptoms is necessary before firm conclusions can be drawn.

Across all participants, when we controlled for the variance associated with experiencing psychological abuse in participants' most problematic romantic relationship, the effects of experiencing physical and/or sexual abuse on depression, anxiety, and posttraumatic stress symptoms were reduced to non-significant levels. These findings suggest that in our sample psychological abuse experienced in participants' most problematic relationship was a stronger predictor of current adverse mental health outcomes than experiencing physical or sexual abuse. Results from this study replicated findings from earlier IPV research (Orava, McLeod, & Sharpe, 1996; Dutton, Goodman, & Bennett, 2001) which indicated that when the variance due to

psychological abuse was removed, physical and sexual abuse experiences were no longer predictive of mental health symptoms, such as depression. These results underscore a repeated finding in IPV research that the presence of psychological abuse in a romantic relationship is likely more predictive of adverse mental health outcomes, such as depression, anxiety, and posttraumatic stress symptoms, than other forms of intimate partner violence present in the relationship (with the consideration of frequency and severity of abuse experienced). Given that in this sample and in other research samples, physical abuse almost always co-occurs with psychological abuse and that psychological abuse occurs on its own in romantic relationships, there seems to be a need for the development of targeted interventions to assist individuals in recovering from psychological abuse experiences.

### **Labeling Romantic Relationship Psychological Abuse Experiences**

Even though a large proportion of our sample reported experiencing one or more psychologically abusive behaviors and one or more instances of physical and/or sexual abuse in their most problematic romantic relationship, 30% of participants labeled their relationship as “not psychologically abusive at all” and 45% of participants described their most problematic romantic relationship as “not abusive at all.” In our sample, just as with the Follingstad and Rogers (2014) study of cohabitating couples, there seems to be a discrepancy between participants’ reported abuse experiences in their romantic relationships and how they perceive/label these experiences. Given that recipients of psychological abuse do not often recognize these behaviors as abusive this discrepancy finding is not entirely surprising. However, the final aim of this study was to examine how participants’ subjective perception of their romantic relationships as “psychologically abusive” was related to their current levels of depression, anxiety, and posttraumatic stress symptoms, given their psychological abuse

experiences in their most problematic partnership. As predicted, the degree to which participants rated their romantic relationships as “psychologically abusive” moderated the relationships between psychological abuse and current levels of depression, anxiety, and posttraumatic stress symptoms. Additionally hypothesized was that participants’ current levels of depression, anxiety, and posttraumatic stress symptoms would likely increase as a result of the interaction between their psychological abuse experiences and the degree to which they labeled their relationship as “psychologically abusive.” Instead, we found that as participants’ subjective ratings increased of how psychologically abusive their most problematic romantic relationship was, the effects of psychological abuse on mental health symptoms across depression, anxiety, and posttraumatic stress decreased.

A lack of recognition or attribution of their abuse experiences as harmful may have contributed to a discrepancy between the frequency of psychological abuse that participants experienced in their most problematic romantic relationship and how much they perceived these experiences as “abusive,” which may have led to participants’ reported increased mental health symptoms. Elevated mental health symptoms for those whom reported this discrepancy seems to be in line with Leon Festinger’s *Theory of Cognitive Dissonance* (1957), which posits that psychological distress occurs when an individual simultaneously holds two or more contradictory ideas (e.g., I have experienced psychological abuse in my romantic relationship and my romantic relationship is not psychologically abusive). This finding suggests that people who endorse this discrepancy may be at a greater risk for elevated mental health concerns (depression, anxiety, and posttraumatic stress symptoms) than for people whose subjective perception of their romantic relationship is consistent with their psychological abuse experiences. While replication of this finding is needed with a more representative sample, it may be helpful

for clinicians to provide psychoeducation about psychologically abusive behaviors to individuals who have experienced psychological abuse by a romantic partner, as a mechanism for reducing mental health symptomology through diminishing any discrepancies that may exist between experience and perception. Another possibility for those who rated their most problematic romantic relationships as “psychologically abusive,” may be that they attributed their mental health concerns more readily to their psychological abuse experiences and were more likely to seek and/or utilize mental health services. The utilization of mental health services may have lowered these participants’ reported levels of depression, anxiety, and posttraumatic stress symptoms, which could account for the observed results. Increasing college students’ help-seeking and mental health service utilization behaviors could provide those who have experienced psychological abuse in a romantic relationship with essential preventative intervention before mental health concerns escalate to clinical levels.

### **Limitations and Future Directions**

Any generalizations that made from the current study results to the greater population are limited by the characteristics the participants in this sample. Given that most of this sample consisted of participants who fell into dominant cultural groups in the United States (e.g., White, heterosexual, cisgender women), further research would benefit from examining psychological abuse experienced in the intimate partnerships of those who identify as individuals of minority group status, such as sexual and gender minorities. Data were collected from a college student population because there is some research evidence to suggest that rates of IPV may be higher in this population (Scherer, Snyder, & Fisher, 2016; Sutherland, Fantasia, & Hutchinson, 2016). An extension of this work would be to examine the mental health effects on non-college students of psychological abuse that occurs on its own in intimate partnerships.

Out of ethical concern for participants and a desire to protect individuals who have been exposed to IPV from further harm, assignment to groups based on previous reported abuse experiences was purposeful. Additionally, due to the use of retrospective self-report measures in this study to collect data from participants, our results may have been affected by recall-bias. The cross-sectional design of this study only allows for interpretation of results in the form of a “snapshot” of participants’ current mental health symptoms. Furthermore, the effects of psychological abuse in participants worst romantic partnerships on their reported mental health symptoms may vary as a function of time elapsed from these experiences. Future work examining the effects of psychological abuse by an intimate partner could benefit from a longitudinal design to track the potential mental health impacts over time, as well as varied methods to measure our constructs. As noted in the methods section, because data collection stopped at 331 college students as opposed to 350, the results may be affected by a truncated amount of power to detect clinical significance in our sample. Future studies would benefit from the replication of the findings, to verify study results and conclusions.

Overall, these findings suggest a need for the development and empirical evaluation of targeted interventions that are sensitive to the experiences of those whom have endured psychological abuse in an intimate partnership both on its own and in the context of other forms of IPV. These results may also be helpful in identifying at risk individuals who may benefit from preventative or early intervention strategies for mental health concerns and/or further IPV victimization. Furthermore, this study provides some evidence for a continued need to investigate the impact of psychological abuse on its own, as a unique predictor of mental health outcomes.

## References

- Beck, A. T., Epstein, N., Brown, G., Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology, 56*, 893-897.
- Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5): Development and initial psychometric evaluation. *Journal of Traumatic Stress, 28*, 489–498. doi: 10.1002/jts.22059
- Dehart, D. D., Follingstad, D. R., & Fields, A. M. (2010). Does context matter in determining psychological abuse? Effects of pattern, harm, relationship, and norms. *Journal of Family Violence, 25*, 461-474. doi: 0.1007/s10896-010-9307-7
- Dutton, M. A., Goodman, L., & Bennett, L. (2001). Court-involved battered women's responses to violence: the role of psychological, physical, and sexual abuse. *Violence and Victim, 14*(1), 89–104.
- Fass, D. F., Benson, R. I., & Leggett, D. G. (2008). Assessing prevalence and awareness of violent behaviors in the intimate partner relationships of college students using internet sampling. *Journal of College Student Psychotherapy, 22*(4), 66-75.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford University Press.
- Follingstad, D. R. (2007). Rethinking current approaches to psychological abuse: Conceptual and methodological issues. *Aggression and Violent Behavior, 12*, 439–458. doi: 10.1016/j.avb.2006.07.004
- Follingstad, D. R. (2009). The impact of psychological aggression on women's mental health and behavior: The status of the field. *Trauma, Violence, & Abuse, 10*(3), 271-289.
- Follingstad, D. R. (2011). A measure of severe psychological abuse normed on a

- nationally representative sample of adults. *Journal of Interpersonal Violence*, 26(6), 1194–1214.
- Follingstad, D. R., Coyne, S., & Gambone, L. (2005). A representative measure of psychological aggression and its severity. *Violence and Victims*, 20(1), 25-38.
- Follingstad, D. R., & DeHart, D. D. (2000). Defining psychological abuse of husbands toward wives: Contexts, behaviors, and typologies. *Journal of Interpersonal Violence*, 15(9), 891-920.
- Follingstad, D. R., Helff, C. M., Binford, R. V., Runge, M. M., & White, J. D. (2004). Laypersons' versus psychologists' judgments of psychologically aggressive actions. *Journal of Interpersonal Violence*, 19, 916–42. doi: 10.1177/088626050426622
- Follingstad, D. R., Rutledge, L. L., Berg, B. J., Hause, E. S., & Polek, E. S. (1990). The role of emotional abuse in physically abusive relationships. *Journal of Family Violence*, 5(2), 107-120.
- Follingstad, D. R., & Rogers, M. J. (2012). Women experiencing psychological abuse: Are they a homogenous group? *Journal of Aggression, Maltreatment & Trauma*, 21(8), 891-916. doi: <http://dx.doi.org.weblib.lib.umt.edu:8080/10.1080/10926771.2012.708012>
- Follingstad, D. R., & Rogers, M. J. (2014). The nature and prevalence of partner psychological abuse in a national sample of adults. *Violence and Victims*, 29(1), 3-23. doi: <http://dx.doi.org.weblib.lib.umt.edu:8080/10.1891/0886-6708.09-160>
- Goldsmith, R. E., & Freyd, J. J. (2005). Awareness for emotional abuse. *Journal of Emotional Abuse*, 5(1), 95-123.

- Henning, K., & Klesges, L. M. (2003). Prevalence and characteristics of psychological abuse reported by court-involved battered women. *Journal of Interpersonal Violence, 18*(8), 857-871.
- James, K., & MacKinnon, L. (2010). The tip of the iceberg: A framework for identifying non-physical abuse in couple and family relationships. *Journal of Feminist Family Therapy, 22*, 112-129. doi: 10.1080/08952831003787867
- Jordan, C. E., Campbell, R., & Follingstad, D. (2010). Violence and women's mental health: The impact of physical, sexual, and psychological aggression. *Annual Review of Clinical Psychology, 6*, 607-628. doi: <http://dx.doi.org.weblib.lib.umt.edu:8080/10.1146/annurev-clinpsy-090209-151437>
- Marshall, L. L. (2001). Effects of men's subtle and overt psychological abuse on low-income women. In K. D. O'Leary & R. D. Maiuro (Eds.), *Psychological abuse in violent domestic relations*. New York: Springer.
- Marshall, A. D., Panuzio, J., Makin-Byrd, K. N., Taft, C.T., & Holtzworth-Munroe, A. (2011). A multilevel examination of interpartner intimate partner violence and psychological aggression reporting concordance. *Behavior Therapy, 42*(3), 364-377.
- McHugh, M. C., Rakowski, S., & Swiderski, C. (2013). Men's experience of psychological abuse: Conceptualization and measurement issues. *Sex Roles, 69*(3-4), 168-181. doi: <http://dx.doi.org.weblib.lib.umt.edu:8080/10.1007/s11199-013-0274-3>
- Migeot, M., & Lester, D. (1996). Psychological abuse in dating, locus of control, depression, and suicidal preoccupation. *Psychological Reports, 79*, 682. doi: 10.2466/pr0.1996.79.2.682
- Murphy, C. M., & O'Leary, K. D. (1989). Psychological aggression predicts physical aggression in early marriage. *Journal of Consulting and Clinical Psychology, 57*(5), 579-582.

- Orava, T. A., McLeod, P. J., & Sharpe, D. (1996). Perception of control, depressive symptomatology, and self-esteem in women in transition from abusive relationships. *Journal of Family Violence, 11*, 167-186. doi: 10.1007/BF02766652
- Rogers, M. J., & Follingstad, D. (2011). Gender differences in reporting psychological abuse in a national sample. *Journal of Aggression, Maltreatment & Trauma, 20*(5), 471-502. doi: <http://dx.doi.org.weblib.lib.umt.edu:8080/10.1080/10926771.2011.586573>
- Rogers, M. J., & Follingstad, D. R. (2014). Women's exposure to psychological abuse: Does that experience predict mental health outcomes? *Journal of Family Violence, 29*(6), 595-611. doi: <http://dx.doi.org.weblib.lib.umt.edu:8080/10.1007/s10896-014-9621-6>
- Scherer, H. L., Snyder, J. A., & Fisher, B. S. (2016). Intimate partner victimization among college students with and without disabilities: Prevalence of and relationship to emotional well-being. *Journal of Interpersonal Violence, 31*(1), 49-80. doi: <http://dx.doi.org.weblib.lib.umt.edu:8080/10.1177/0886260514555126>
- Smith, S.G., Chen, J., Basile, K.C., Gilbert, L.K., Merrick, M.T., Patel, N., Walling, M., & Jain, A. (2017). The National Intimate Partner and Sexual Violence Survey (NISVS): 2010-2012 State Report. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Straus, M. A. (1979). Measuring intrafamily conflict and violence: The Conflict Tactics Scale. *Journal of Marriage and the Family, 17*(1), 283-316.
- Straus, M. A., & Field, C. J. (2003). Psychological aggression by American parents: National data on prevalence, chronicity, and severity. *Journal of Marriage and Family, 65*(4), 795-808.

- Straus, M.A. & Gelles, R.J. & Steinmetz, S. (1980). *Behind Closed Doors: Violence in the American Family*. Garden City, New York: Anchor.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The conflict tactics scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues, 17*, 283–316. doi: 10.1177/019251396017003001
- Sutherland, M. A., Fantasia, H. C., & Hutchinson, M. K. (2016). Screening for intimate partner and sexual violence in college women: Missed opportunities. *Women's Health Issues, 26*(2), 217-224. doi: <http://dx.doi.org.weblib.lib.umt.edu:8080/10.1016/j.whi.2015.07.008>
- Taft, C. T., O'Farrell, T. J., Torres, S. E., Panuzio, J., Monson, C. M., Murphy, M., & Murphy, C. M. (2006). Examining the correlates of psychological aggression among a community sample of couples. *Journal of Family Psychology, 20*(4), 581–588.
- Tolman, R. M. (1992). Psychological abuse of women. In R. T. Ammerman & M. Hersen (Eds.), *Assessment of family violence: A clinical and legal sourcebook* (2nd ed., pp. 291–310). New York: John Wiley & Sons.
- Tolman, R. M. (1999). The validation of the Psychological Maltreatment of Women Inventory. *Violence and Victims, 14*(1), 25-37.

Table 1

*Means for Depression, Anxiety, and Posttraumatic Stress Symptoms between Abuse Groups*

Group	n	Depression Sx <i>M (SD)</i>	Anxiety Sx <i>M (SD)</i>	Trauma Sx <i>M (SD)</i>
No Abuse	33	1.48 (2.53)	1.82 (4.33)	2.76 (4.80)
Psychological Abuse Only	114	3.55 (5.08)	5.49 (8.01)	11.04 (13.44)
Multiple Types of Abuse	183	5.55 (5.34)	9.93 (10.45)	20.27 (15.83)

Table 2

*Multivariate Analysis of Variance (MANOVA) Summary for Depression, Anxiety, and Posttraumatic Stress Symptoms between Abuse Groups*

	$df_1, df_2$	F	$p$	$\eta^2$
Overall	(6, 654)	9.08**	< .001	.077
Depression Sx	(2, 127.30)	23.69**	< .001	.068
Anxiety Sx	(2, 132.64)	28.25**	< .001	.086
Trauma Sx	(2, 169.69)	75.49**	< .001	.077

*Note.* \*\*  $p < .001$ . The assumption of homogeneity of variances between groups may have been violated for each F-test. Therefore, Pillai's Trace is reported as the overall F-test statistic and Welch's statistic is reported as F, for each dependent variable.

Table 3

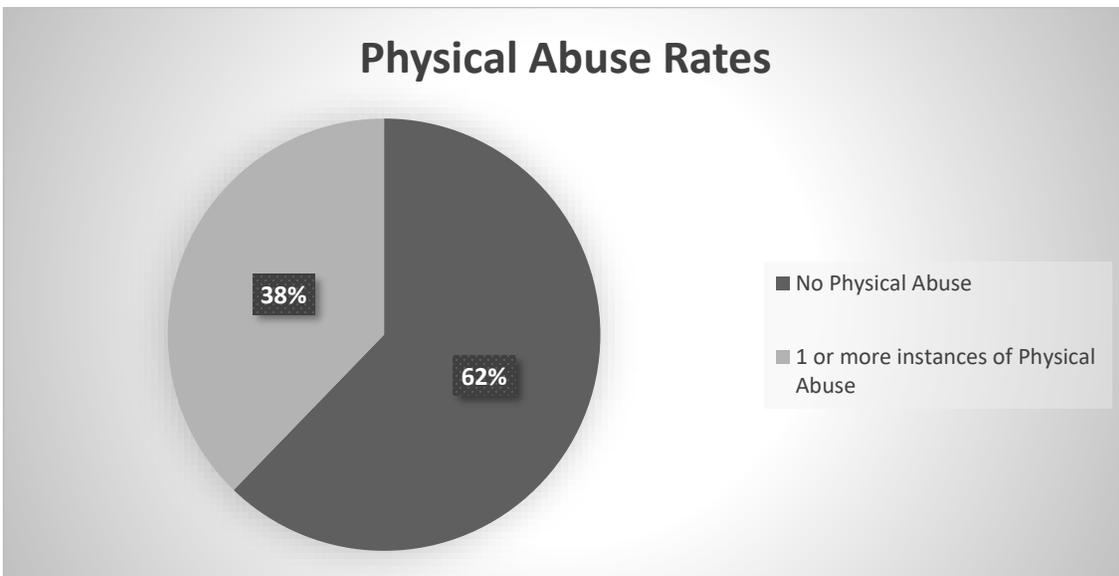
*Hierarchical Multiple Regression Model Summaries for the Effect of Psychological Abuse on Depression, Anxiety, and Posttraumatic Stress Symptoms*

	R	R <sup>2</sup>	R <sup>2</sup> Change	F Change	df <sub>1</sub> , df <sub>2</sub>	p
<b>Depression Sx</b>						
Block 1	.359	.129	.129	48.729**	1, 329	< .001
Block 2	.363	.132	.003	0.493	2, 327	.611
<b>Anxiety Sx</b>						
Block 1	.416	.173	.173	68.981**	1, 329	< .001
Block 2	.427	.183	.009	1.877	2, 327	.155
<b>Trauma Sx</b>						
Block 1	.544	.296	.296	138.528**	1, 329	< .001
Block 2	.551	.304	.008	1.763	2, 327	.173

*Note.* \*\*  $p < .001$ . Block 1 represents the variance in the model attributed to the effects of psychological abuse on depression, anxiety, and posttraumatic stress symptoms in participant's most problematic romantic relationship. Block 2 represents the variance attributed to the effect of physical and sexual abuse on the dependent variables in participant's most problematic romantic relationship when added to the model.



*Figure 1.* Prevalence rates of psychological abuse experienced in participants' most problematic romantic relationship as reported on the Measure of Psychologically Abusive Behaviors.



*Figure 2.* Prevalence rates of physical abuse experienced in participants' most problematic romantic relationship as reported on the Revised Conflict Tactics Scale-2 (CTS-2).

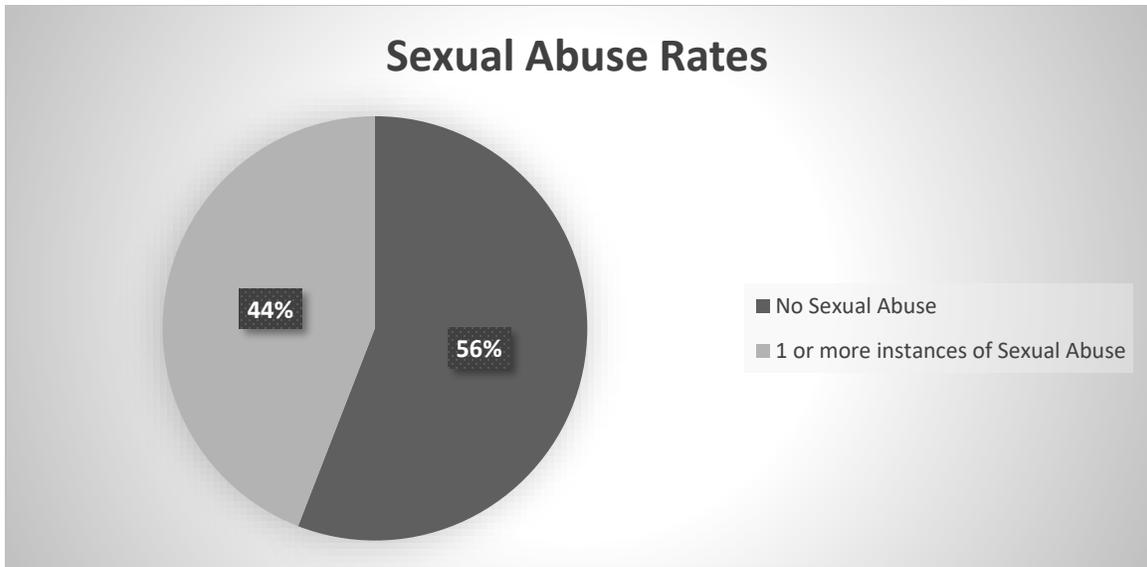
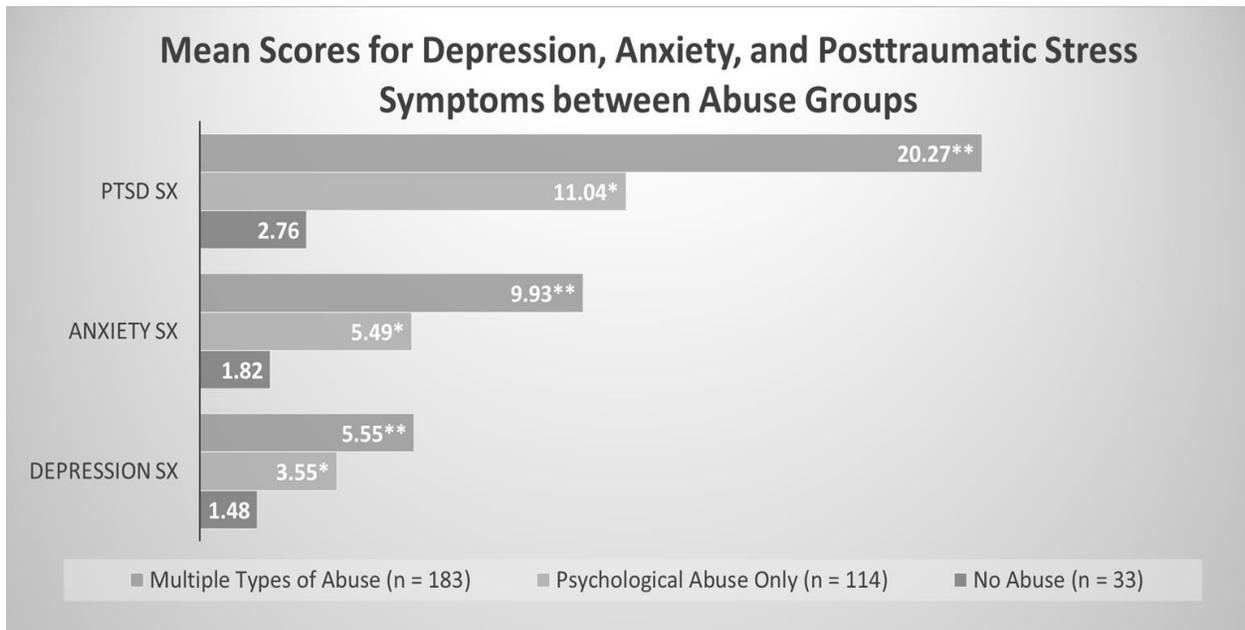
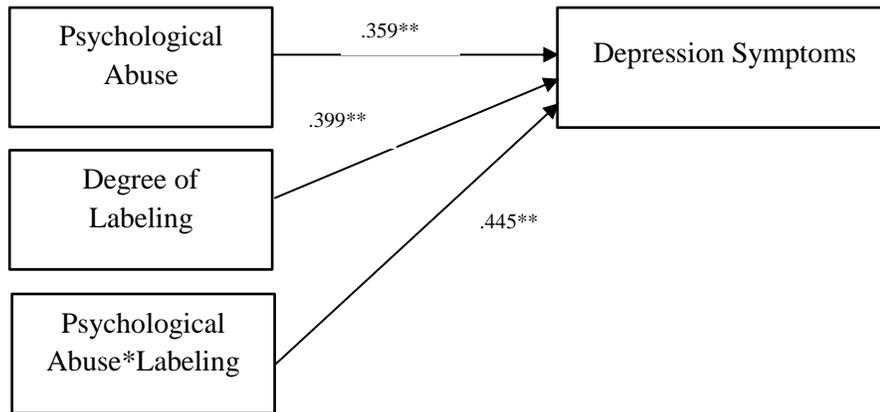


Figure 3. Prevalence rates of sexual abuse experienced in participants' most problematic romantic relationship as reported on the Revised Conflict Tactics Scale-2 (CTS-2).



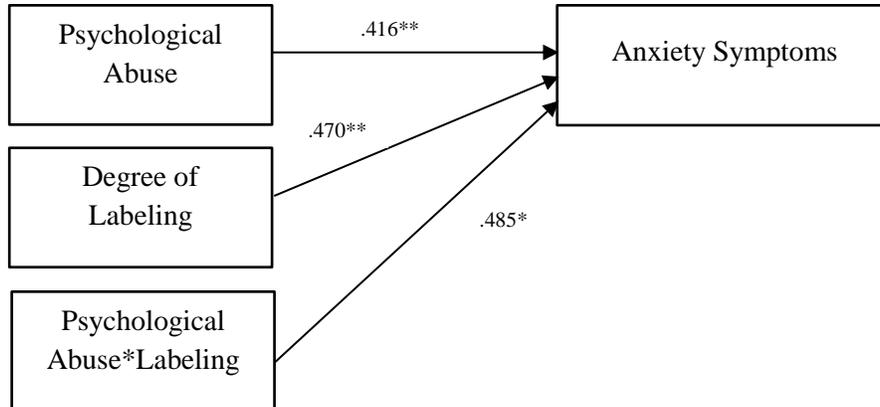
Note. \*\*  $p < .01$  significantly different from the means of the psychological abuse only and the no abuse groups; \*  $p < .01$  significantly different from the mean of the no abuse group.

Figure 4. Mean scores for depression, anxiety, and posttraumatic stress symptoms between abuse groups.



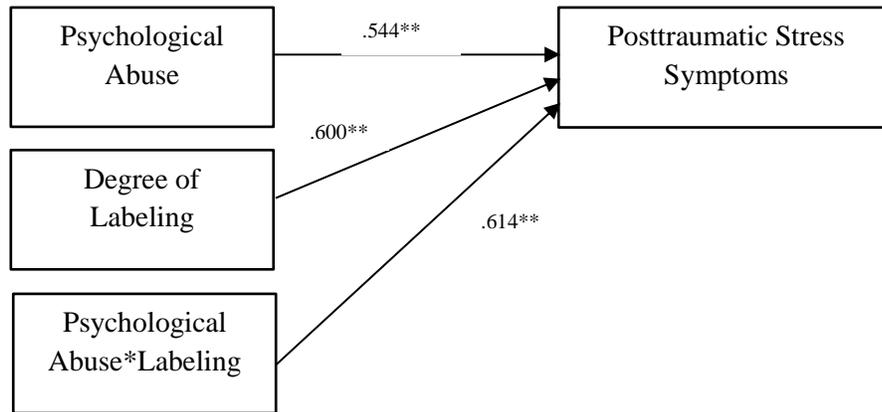
Note. \*\*  $p < .01$ , \*  $p < .05$ .

Figure 5. Moderation model for the effect of psychological abuse experienced on depression symptoms as a function of the degree to which participants label their problematic relationship as “psychologically abusive.”



Note. \*\*  $p < .01$ , \*  $p < .05$ .

Figure 6. Moderation model for the effect of psychological abuse experienced on anxiety symptoms as a function of the degree to which participants label their problematic relationship as “psychologically abusive.”



Note. \*\*  $p < .01$ , \*  $p < .05$ .

Figure 7. Moderation model for the effect of psychological abuse experienced on posttraumatic stress symptoms as a function of the degree to which participants label their problematic relationship as “psychologically abusive.”

Appendix A

**Measure of Psychologically Abusive Behaviors (MPAB)  
(Follingstad, 2011)**

**Instructions:** Please think about your most “problematic” relationship (whether that’s a current relationship or a past relationship) when answering the following questions. For each of the behaviors described below, answer approximately how often, on a **YEARLY** basis, your partner has done these things. Indicate your answer by writing a number in the blank that best corresponds to how often these behaviors occurred.

1	2	3	4	5	6	7	8	9
Never	Once	A few	Every other	Monthly	A Couple	Weekly	A Couple	Daily
		times a year	month		times a month		times a week	

- \_\_\_\_\_ 1. Acted rude toward, gossiped about, or told lies about your family and friends to discourage you from spending time with them.
- \_\_\_\_\_ 2. Refuse to speak to you as a way to punish or hurt you.
- \_\_\_\_\_ 3. Treat you as useless or stupid as a way to make you feel inferior.
- \_\_\_\_\_ 4. Flirt with others in front of you as a way to make you jealous and worried.
- \_\_\_\_\_ 5. Act very upset because he/she felt jealous if you spoke to or looked at another person to try to get you to be less social with others.
- \_\_\_\_\_ 6. Threaten to commit suicide as a way to get you to do what he/she wanted.
- \_\_\_\_\_ 7. Criticize and belittle you as a way to make you feel badly about yourself.
- \_\_\_\_\_ 8. Tried to keep you from socializing with family or friends without him/her being present to keep you away from them.
- \_\_\_\_\_ 9. Tried to forbid you from socializing with family or friends to keep you away from them.
- \_\_\_\_\_ 10. Tried to make personal choices that should have been left up to you (e.g., which clothes to wear, whether you should smoke or drink, what you eat) in order to control you.
- \_\_\_\_\_ 11. Tried to make major decisions that affected you without consulting with you in order to control you.
- \_\_\_\_\_ 12. Point out others as attractive as a way of making you feel uncomfortable and worried.
- \_\_\_\_\_ 13. Threaten to end the relationship as a way to get you to do what he/she wanted.

1	2	3	4	5	6	7	8	9
Never	Once	A few	Every other	Monthly	A Couple	Weekly	A Couple	Daily
		times a year	month		times a month		times a week	

- \_\_\_\_\_ 14. Withhold physical or verbal affection as a way to punish or hurt you.
- \_\_\_\_\_ 15. Falsely accuse you of trying to or actually having an affair in order to get you to restrict your behavior to prove you were not.
- \_\_\_\_\_ 16. Threaten to reveal an embarrassing secret as a way to hurt or manipulate you.
- \_\_\_\_\_ 17. Reveal important secrets to others as a way to embarrass or hurt you.
- \_\_\_\_\_ 18. Verbally threaten to physically harm you or make a gesture that seemed physically threatening as a way to frighten you.
- \_\_\_\_\_ 19. Continue to act very upset (e.g., pouted, stayed angry, gave you the silent treatment) until you did what he/she wanted you to do.
- \_\_\_\_\_ 20. Insult or ridicule you in front of others to humiliate you.
- \_\_\_\_\_ 21. Intentionally turn a neutral interaction into an argument or disagree with you for the purpose of creating conflict.
- \_\_\_\_\_ 22. Try to prevent you from speaking to or looking at any person who could be a potential romantic partner for you.
- \_\_\_\_\_ 23. Listen in on phone conversations, read your email or go through your belongings without your permission as a way to check on you.
- \_\_\_\_\_ 24. Acted very upset when he/she didn't get to make small decisions, such as what to watch on television or which restaurant to eat at, in order to control you.
- \_\_\_\_\_ 25. Try to make you think he/she was more competent and intelligent than you as a way of making you feel inferior.
- \_\_\_\_\_ 26. Threaten to harm others around you (e.g., your family, your children, your close friends) to intimidate you.
- \_\_\_\_\_ 27. Call you a derogatory name as a way to make you feel badly about yourself.
- \_\_\_\_\_ 28. Imply he/she was having an affair as a way to make you feel insecure and worried.
- \_\_\_\_\_ 29. Treat an argument as though he/she had to "drive you into the ground" and make you feel bad when making their points.
- \_\_\_\_\_ 30. Harm or destroy your personal things of value (e.g., pictures, keepsakes, clothes, etc.) as a way to intimidate you.

1	2	3	4	5	6	7	8	9
Never	Once	A few	Every other	Monthly	A Couple	Weekly	A Couple	Daily
		times a year	month		times a month		times a week	

- \_\_\_\_\_ 31. Yell and scream as a way to intimidate you.
- \_\_\_\_\_ 32. Harm pets as a way to intimidate you.
- \_\_\_\_\_ 33. Ignore important holidays and events as a way to punish or hurt you.
- \_\_\_\_\_ 34. Treat you with strong hatred and contempt.
- \_\_\_\_\_ 35. Refuse to have sex with you as a way of making you feel insecure or inadequate.
- \_\_\_\_\_ 36. Criticize your physical looks or sexual performance as a way to humiliate you.
- \_\_\_\_\_ 37. Insist you have sex with him/her in belittling or humiliating ways.
- \_\_\_\_\_ 38. Follow you or have you followed by someone else as a way of checking up on your activities.
- \_\_\_\_\_ 39. Throw a temper tantrum (e.g., breaking objects, acting in a rage) as a way to frighten you?
- \_\_\_\_\_ 40. Try to demand obedience to orders that he/she gave as a way of establishing authority over you.
- \_\_\_\_\_ 41. Try to make you report on the details of where you went and what you did when you were not with him/her as a way to check on you.
- \_\_\_\_\_ 42. Threaten to kill you as a way to frighten you.

Did you answer the previous questions regarding a past or current romantic relationship? (Circle one)

Past Relationship          Current Relationship

**Additional Questions**

**Instructions:** Please circle the answer that best fits your experience and/or feelings.

1 = Not at all, 2 = A slight amount, 3 = A fair amount, 4 = Quite a bit, 5 = Very much

(If you did not experience ANY of the behaviors above, select N/A for "not applicable.")

1. Thinking about all of the psychological actions listed above that you indicated your partner has done to you, compared with the rest of your relationship, how problematic is it to you that they have occurred?

1      2      3      4      5      N/A

2. To what degree do you feel that you **contributed to** your partner using these kinds of problematic actions against you?

1      2      3      4      5      N/A

3. To what degree do you feel that you **reciprocated** what your partner did by doing similar things after your partner did them?

1      2      3      4      5      N/A

4. To what degree do you feel that you **started** these kinds of problematic actions **first** in your relationship toward your partner before your partner did them to you?

1      2      3      4      5      N/A

5. To what degree do you feel that you **can control** whether your partner uses these kinds of problematic actions against you?

1      2      3      4      5      N/A

6. To what degree do you feel that you **deserve** your partner using these kinds of problematic actions against you?

1      2      3      4      5      N/A

7. To what degree do you feel that your partner using these kinds of problematic actions against you is **what you expected** would happen in life?

1      2      3      4      5      N/A

Appendix B

**Revised Conflict Tactics Scale-2 (CTS-2)  
Physical Assault Scale and Sexual Coercion Scale Items  
(Straus, Hamby, Boney-McCoy, & Sugarman, 1996)**

**Instructions:** Please think about your most “problematic” relationship (whether that’s a current relationship or a past relationship) when answering the following questions. No matter how well a couple gets along, there are times when they disagree, get annoyed with the other person, want different things from each other, or just have spats or fights because they are in a bad mood, are tired, or for some other reason. Couples also have many different ways of trying to settle their differences. This is a list of things that might happen when you try to settle those differences. For each of the behaviors described below, answer approximately how often, on a **YEARLY** basis, you or your partner has done these things. If you or your partner did not do these things in the past year, but it happened before that, circle “7.”

How often did this happen?

- |                                 |  |
|---------------------------------|--|
| 1 = Once in the past year       | 5 = 11-20 times in the past year                   |
| 2 = Twice in the past year      | 6 = More than 20 times in the past year            |
| 3 = 3-5 times in the past year  | 7 = Not in the past year, but it did happen before |
| 4 = 6-10 times in the past year | 0 = This has never happened                        |

- |  |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|
| 1. I threw something at my partner that could hurt             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 2. My partner did this to me                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 3. I twisted my partner’s arm or hair                          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 4. My partner did this to me                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 5. I pushed or shoved my partner                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 6. My partner did this to me                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 7. I grabbed my partner  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 8. My partner did this to me                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 9. I slapped my partner  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 10. My partner did this to me                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 11. I used a knife or gun on my partner                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 12. My partner did this to me                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 13. I punched or hit my partner with something that could hurt | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 14. My partner did this to me                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 15. I choked my partner  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 16. My partner did this to me                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 17. I slammed my partner against a wall                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 18. My partner did this to me                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 19. I beat up my partner                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 20. My partner did this to me                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 21. I burned or scalded my partner on purpose                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |
| 22. My partner did this to me                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 |

23. I kicked my partner	1	2	3	4	5	6	7	0
24. My partner did this to me	1	2	3	4	5	6	7	0
25. I made my partner have sex without a condom	1	2	3	4	5	6	7	0
26. My partner did this to me	1	2	3	4	5	6	7	0
27. I insisted on sex when my partner did not want to (but did not use physical force)	1	2	3	4	5	6	7	0
28. My partner did this to me	1	2	3	4	5	6	7	0
29. I insisted my partner have oral or anal sex (but did not use physical force)	1	2	3	4	5	6	7	0
30. My partner did this to me	1	2	3	4	5	6	7	0
31. I used force (like hitting, holding down, or using a weapon) to make my partner have oral or anal sex	1	2	3	4	5	6	7	0
32. My partner did this to me	1	2	3	4	5	6	7	0
33. I used force (like hitting, holding down, or using a weapon) to make my partner have sex	1	2	3	4	5	6	7	0
34. My partner did this me	1	2	3	4	5	6	7	0
35. I used threats to make my partner have oral or anal sex	1	2	3	4	5	6	7	0
36. My partner did this to me	1	2	3	4	5	6	7	0
37. I used threats to make my partner have sex	1	2	3	4	5	6	7	0
38. My partner did this to me	1	2	3	4	5	6	7	0

Appendix C

**Labeling the Relationship**

1. Please think about your most “problematic” relationship (whether that’s a current relationship or a past relationship). How “problematic” is the relationship in which you chose?

1= not problematic at all  
5 = moderately problematic  
9 = extremely problematic

1    2    3    4    5    6    7    8    9

2. Please think about your most “problematic” relationship (whether that’s a current relationship or a past relationship). How “psychologically abusive” is the relationship in which you chose?

1= not psychologically abusive at all  
5 = moderately psychologically abusive  
9 = extremely psychologically abusive

1    2    3    4    5    6    7    8    9

3. Please think about your most “problematic” relationship (whether that’s a current relationship or a past relationship). How “physically abusive” is the relationship in which you chose?

1= not physically abusive at all  
5 = moderately physically abusive  
9 = extremely physically abusive

1    2    3    4    5    6    7    8    9

4. Please think about your most “problematic” relationship (whether that’s a current relationship or a past relationship). How “abusive” overall is the relationship in which you chose?

1= not abusive at all  
5 = moderately abusive  
9 = extremely abusive

1    2    3    4    5    6    7    8    9

Appendix D

**Patient Health Questionnaire (PHQ-9)**  
**(Kroenke et al., 2001)**

**Instructions:** Please think about your most “problematic” relationship (whether that’s a current relationship or a past relationship). As a result of your experiences in this “problematic” relationship, how often have you been bothered by any of the following problems? Please indicate how much you have been bothered by that symptom during the past 2 weeks, including today.

**0 = Not at all**

**1 = Several Days**

**2 = More than half the days**

**3 = Nearly every day**

- |   |   |   |   |   |
|---|---|---|---|---|
| 1. Little interest or pleasure in doing things  | 0 | 1 | 2 | 3 |
| 2. Feeling down, depressed, or hopeless   | 0 | 1 | 2 | 3 |
| 3. Trouble falling or staying asleep, or sleeping too much  | 0 | 1 | 2 | 3 |
| 4. Feeling tired or having little energy  | 0 | 1 | 2 | 3 |
| 5. Poor appetite or overeating  | 0 | 1 | 2 | 3 |
| 6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down  | 0 | 1 | 2 | 3 |
| 7. Trouble concentrating on things, such as reading the newspaper or watching television  | 0 | 1 | 2 | 3 |
| 8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual | 0 | 1 | 2 | 3 |
| 9. Thoughts that you would be better off dead or of hurting yourself in some way  | 0 | 1 | 2 | 3 |

Appendix E

**Beck Anxiety Inventory (BAI)**

**Instructions:** Please think about your most “problematic” relationship (whether that’s a current relationship or a past relationship). As a result of your experiences in this “problematic” relationship, how often have you been bothered by any of the following problems? Please indicate how much you have been bothered by that symptom during the past month, including today.

**0 = Not at all**

**1 = Mildly, but it didn’t bother me much**

**2 = Moderately, it wasn’t pleasant at times**

**3 = Severely, it bothered me a lot**

- |                                |   |   |   |   |
|--------------------------------|---|---|---|---|
| 1. Numbness or tingling        | 0 | 1 | 2 | 3 |
| 2. Feeling hot                 | 0 | 1 | 2 | 3 |
| 3. Wobbliness in legs          | 0 | 1 | 2 | 3 |
| 4. Unable to relax             | 0 | 1 | 2 | 3 |
| 5. Fear of the worst happening | 0 | 1 | 2 | 3 |
| 6. Dizzy or lightheaded        | 0 | 1 | 2 | 3 |
| 7. Heart pounding/racing       | 0 | 1 | 2 | 3 |
| 8. Unsteady                    | 0 | 1 | 2 | 3 |
| 9. Terrified of afraid         | 0 | 1 | 2 | 3 |
| 10. Nervous                    | 0 | 1 | 2 | 3 |
| 11. Feeling of choking         | 0 | 1 | 2 | 3 |
| 12. Hands trembling            | 0 | 1 | 2 | 3 |
| 13. Shaky/unsteady             | 0 | 1 | 2 | 3 |
| 14. Fear of losing control     | 0 | 1 | 2 | 3 |
| 15. Difficulty in breathing    | 0 | 1 | 2 | 3 |
| 16. Fear of dying              | 0 | 1 | 2 | 3 |
| 17. Scared                     | 0 | 1 | 2 | 3 |
| 18. Indigestion                | 0 | 1 | 2 | 3 |
| 19. Faint/lightheaded          | 0 | 1 | 2 | 3 |
| 20. Face flushed               | 0 | 1 | 2 | 3 |
| 21. Hot/cold sweats            | 0 | 1 | 2 | 3 |

Appendix F

**PTSD checklist –5 (PCL-5)**

**Instructions:** Please think about your most “problematic” relationship (whether that’s a current relationship or a past relationship). As a result of your experiences in this “problematic” relationship, how often have you been bothered by any of the following problems? Please indicate how much you have been bothered by that problem during the past month, including today.

**0 = Not at all**

**1 = A little bit**

**2 = Moderately**

**3 = Quite a bit**

**4 = Extremely**

- |  |           |
|--|-----------|
| 1. Repeated, disturbing, and unwanted memories of the stressful experience?  | 0 1 2 3 4 |
| 2. Repeated, disturbing dreams of the stressful experience?  | 0 1 2 3 4 |
| 3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?   | 0 1 2 3 4 |
| 4. Feeling very upset when something reminded you of the stressful experience?   | 0 1 2 3 4 |
| 5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?  | 0 1 2 3 4 |
| 6. Avoiding memories, thoughts, or feelings related to the stressful experience?   | 0 1 2 3 4 |
| 7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?   | 0 1 2 3 4 |
| 8. Trouble remembering important parts of the stressful experience?  | 0 1 2 3 4 |
| 9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)? | 0 1 2 3 4 |
| 10. Blaming yourself or someone else for the stressful experience or what happened after it?   | 0 1 2 3 4 |
| 11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?  | 0 1 2 3 4 |
| 12. Loss of interest in activities that you used to enjoy?   | 0 1 2 3 4 |
| 13. Feeling distant or cut off from other people?  | 0 1 2 3 4 |

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)? | 0 | 1 | 2 | 3 | 4 |
| 15. Irritable behavior, angry outbursts, or acting aggressively?  | 0 | 1 | 2 | 3 | 4 |
| 16. Taking too many risks or doing things that could cause you harm?  | 0 | 1 | 2 | 3 | 4 |
| 17. Being “superalert” or watchful or on guard?   | 0 | 1 | 2 | 3 | 4 |
| 18. Feeling jumpy or easily startled?   | 0 | 1 | 2 | 3 | 4 |
| 19. Having difficulty concentrating?  | 0 | 1 | 2 | 3 | 4 |
| 20. Trouble falling or staying asleep?  | 0 | 1 | 2 | 3 | 4 |

## APPENDIX G

### Demographic Questionnaire

We would like to learn a little about you. Tell us about You.

1. How old are you? \_\_\_\_\_
  - a. 16-17 (exclusion criteria)
  - b. 18-24
  - c. 25-34
  - d. 35-44
  - e. 45-55
  - f. 56+
2. Gender identity (Cisgender means that you self-identify with the gender that corresponds with your assigned sex at birth)
  - a. Cisgender Woman
  - b. Cisgender Man
  - c. Transgender Woman
  - d. Transgender Man
  - e. Gender Queer
  - f. Gender Fluid
  - g. Gender Neutral/Agender
  - h. Gender Non-conforming/Gender Variant
  - i. Two-Spirit
  - j. Questioning
  - k. Other \_\_\_\_\_
3. Semesters in college
  - a. Provide scale from 1-18
4. Class ranking
  - a. Freshman
  - b. Sophomore
  - c. Junior
  - d. Senior
  - e. Graduate Student
  - f. Law Student
  - g. Non-traditional Student
5. My religious orientation is \_\_\_\_\_.
6. Time spent dedicated to my recognized religion or spirituality. How frequently do you attend your house of worship or organized religious events? (Sliding scale provided with anchors)
  - a. Never
  - b. Occasionally, 1-3 times per year
  - c. Once a month
  - d. Once a week
  - e. Multiple times a week
  - f. Everyday
  - g. Multiple times a day
7. Socio-Political beliefs (sliding scale provided with anchors)
  - a. Conservative
  - b. Moderate conservative
  - c. Independent
  - d. Moderate liberal

- e. liberal
8. What is your racial/ethnic background?
    - a. White/non-Hispanic
    - b. Black
    - c. Hispanic/Latino
    - d. Asian or Pacific Islander
    - e. American Indian/Native American/First Nation/Indigenous Peoples
    - f. Biracial or Multiracial
    - g. Other
  8. Are you in a current romantic relationship?
    - a. Yes
    - b. No
  9. What is your current relationship status? (Check all that apply)
    - a. Single
    - b. Dating, in a non-committed relationship
    - c. Dating, in a committed relationship
    - d. Cohabiting relationship
    - e. Monogamous relationship
    - f. Non-monogamous relationship
    - g. Engaged
    - h. Married
    - i. Divorced or separated
    - j. Widowed
    - k. Other\_\_\_\_\_
  10. (If yes to relationship) How long have you been in this relationship? (sliding scale in months) (Inclusion criteria)
  11. (If yes to relationship) Are you in a same-sex relationship?
    - a. Yes
    - b. No
  12. (if no to relationship) Have you been in a past romantic relationship?
    - a. Yes
    - b. No
  13. How long were you in your past romantic relationship? (sliding scale in months) (Inclusion criteria)
  14. How would you characterize your past romantic relationship? (Check all that apply)
    - a. Dating, in a non-committed relationship
    - b. Dating, in a committed relationship
    - c. Cohabiting relationship
    - d. Monogamous relationship
    - e. Non-monogamous relationship
    - f. Engaged
    - g. Married
    - h. Divorced or separated
    - i. Widowed
    - j. Other\_\_\_\_\_
  15. (If no to current relationship) Was your past relationship a same-sex relationship?
    - a. Yes
    - b. No
  16. When you completed survey questions about your experiences with abuse, did you answer the questions in regard to a past or current romantic relationship?
    - a. Past

- b. Current
17. If you completed the survey questions about your experiences in a PAST problematic relationship, please indicate the number of MONTHS it has been since this relationship ended.
  18. Please think about the problematic romantic relationship in which you responded to the above questions. Please indicate what services you have utilized because of your experiences in this past or current problematic romantic relationship. (please check all that apply)
    - a. Voluntary Individual psychotherapy (individual therapy sessions with a mental health clinician)
    - b. Voluntary Group Psychotherapy (group therapy sessions with a mental health clinician)
    - c. Contacted University Counseling Services, the Student Advocacy Resource Center (SARC), or the Clinical Psychology Center
    - d. Support group meetings
    - e. Attended court-ordered/mandated group or individual therapy for Domestic Violence/Abuse against my partner
    - f. An emergency room hospital visit
    - g. Admitted to a hospital
    - h. Visited a primary care physician
    - i. Surgical Intervention
    - j. Pain medication prescribed by a physician/psychiatrist
    - k. Anti-Depression/Anxiety medication prescribed by a physician/psychiatrist
    - l. Contacted a mental health and/or suicide hotline
    - m. Contacted a domestic violence shelter or hotline
    - n. Stayed at a domestic violence shelter/safe house
    - o. Contacted a Legal Advocate
    - p. Obtained a Protective/Restraining Order against my partner
    - q. My partner obtained a Protective/Restraining Order against me
    - r. Contacted Campus Police
    - s. Called 9-1-1 emergency services for Domestic Violence/Abuse by my partner
    - t. My partner called 9-1-1 emergency services for Domestic Violence/Abuse by me
    - u. Pressed charges against my partner/gone to court for Domestic Violence/Abuse
    - v. Had charges pressed against me/gone to court for Domestic Violence/Abuse against my partner
    - w. I have not utilized any of the above services for my experiences in a problematic romantic relationship
    - x. Other (please indicate any other services that you have utilized in the blank space)
  19. Which of the following sexual orientations do you most identify with?
    - a. Heterosexual/ Straight
    - b. Gay
    - c. Lesbian
    - d. Bisexual
    - e. Asexual
    - f. Queer
    - g. Pansexual
    - h. Questioning
    - i. Other (open space for text)
  20. How would you categorize your economic class?
    - a. Low income/poverty
    - b. Working class
    - c. Middle class
    - d. Upper-middle class
    - e. Upper class

- f. Elite upper class
21. The area I primarily grew up in can be described as:
- a. Rural
  - b. Rural town
  - c. Town
  - d. Small city
  - e. Urban-metropolitan city
22. Are you currently enrolled at the University of Montana?
- a. Yes
  - b. No
23. (If yes to 12) How many credits are you currently enrolled in? (sliding scale 1-20)
24. Have you ever had to take a semester or more off from school?
- a. Yes
  - b. No
25. (If yes to 14) Why did you need to take time off from school?
- a. Open ended
26. Semesters of higher education after high school but before UM. \_\_\_\_\_

## APPENDIX H

### INFORMED CONSENT

**Thank you for agreeing to participate in this survey!**

#### **Who is invited to complete this survey?**

University of Montana and Missoula College students over the age of 18, who are either currently in a romantic relationship or who have been in a past romantic relationship for at least 3 months. During the questionnaire, we may ask about your experiences on either campus; however, both will be referred to collectively as UM. Please note: this refers to either campus. To ensure the results accurately represent students at UM, it is important that it be completed by **ONLY YOU!** The survey is completely voluntary and anonymous.

#### **How do I complete the Survey?**

You will be asked to come to a research room on the UM campus where you will complete the survey online through a survey program called Qualtrics. A researcher will be present to assist you with any questions or concerns that may come up for you while completing the survey. Generally, you will be asked questions about your experiences in either a current or past romantic relationship and about your mental health. The survey contains two types of questions: Questions that require you to check a box associated with the response that best describes your experience and questions where you are asked to type your answers in a text presented beneath the question. For the questions that ask you to type your answers, please be sure to give as complete a response as you can. Please answer as honestly and openly as you can. Remember that this survey is completely anonymous.

#### **How long does it take to complete the survey?**

Answering the survey should take approximately forty to sixty (40-60) minutes to complete all the questions. However, the total completion time will vary. Please take your time to answer the questions as needed. To assist in fully understanding your experiences, feelings, and ideas, we ask that you try and complete as much as much of the survey as you can. Although, please keep in mind that completion of the questionnaires is completely voluntary, and you may discontinue the survey at any time.

#### **What will happen with your survey responses?**

Your questionnaire responses and the information that you share will be kept confidential. Neither your name nor any other piece of information that might identify you will accompany your survey responses. In order to protect your health and safety, there is one important exception to the confidentiality of the information that you provide. There is one question on the survey that asks you to report on your *risk of harming yourself*. If your response indicates that you have been thinking about harming yourself, the researcher will be required to inform a supervisor or to call emergency responders. These people might then need to evaluate you further or take steps to ensure your safety. Finally, if the researcher is particularly concerned about your safety, she might encourage you to seek health care services.

#### **Are there any risks associated with taking this survey?**

We believe that the likely risks of completing this survey are minimal. However, because we are asking about personal experiences, some of the questions may make you uncomfortable or be distressing to you. If you become distressed or desire assistance during or after taking the survey, you may contact one of the

researchers that will be present during the completion of your survey, or you may contact one or both of the following numbers:

**Counseling Services.....243-4711**  
**Student Advocacy Resource Center.....243-6559**

*Please also note that you may exit out of the survey at any time. There will be an option at the end of every page that allows you to discontinue the survey.*

**Are there any benefits for me in completing the survey?**

There are no immediate benefits to you for your participation in this survey. However, this survey will help us to understand more about romantic relationships among college students. This research can be very helpful to the campus community, may help with the development of effective programs, and may be helpful in creating positive change for issues such as sexual and interpersonal violence. The summary findings will also be made available to help other schools learn from us as well.

You will be eligible to receive participation credit through Sona-Systems in exchange for your participation in this survey. If at any time while completing the questionnaires you begin to feel uncomfortable, you may discontinue your participation, knowing that doing so will in no way affect your receiving credit for participating. In order to receive research credit, please follow the instructions at the end of the survey. At the end there could be an option to print off a confirmation of your participation. This confirmation page will be in **no way** connected to your responses.

To request more information about this questionnaire or the study, please email Christine Fiore at [christine.fiore@umontana.edu](mailto:christine.fiore@umontana.edu).

Clicking below indicates that I have read the description of the study and I agree to participate in this study.

\_\_\_\_\_ I agree

\_\_\_\_\_ I disagree

Please provide the following information as accurately as possible. Thank You.

## APPENDIX I

### Suicidality Protocol

- I. If a participant endorses item 9 on the PHQ-9 questionnaire during the online survey (provides a 1, 2, or 3 response), this will trigger an alert message that will read “Please contact a researcher at this time.” This message will appear on the participant’s screen upon completion of the survey questions.
- II. The researcher and/or research assistants will be trained to check the screen before a participant leaves the study room for this message.
- III. If the message appears on a participant’s screen, a password (to be devised by the researcher) will be required to be entered by a research assistant or researcher in order for the participant to reach the study completion page. The password mechanism will ensure that participants cannot skip past the alert message, without a researcher/research assistant’s knowledge.
- IV. If an alert message is present on a participant’s screen upon completion of the survey, the research assistant will contact the researcher (graduate student), who will then conduct a suicide risk assessment with the participant.
- V. The researcher (graduate student) will meet with the student in a private room and complete a Linehan Risk Assessment and Management Protocol (LRAMP) to assess the student’s risk for suicidality and distress. See Appendix J.
- VI. The researcher will notify one of the faculty supervisors, David Schuldberg, Raurie Birch, or Chris Fiore, with the results of the risk assessment and the faculty supervisor will assist in deciding about the participant’s risk.
- VII. If the researcher cannot reach the faculty supervisors, David Schuldberg, Raurie Birch, or Chris Fiore, the researcher will contact the Clinical Psychology Center’s on call faculty member for assistance with the risk assessment.
- VIII. If after consultation with a faculty supervisor the participant is at a low risk for suicide, the student will be provided with counseling resources and crisis numbers. The researcher will offer to walk the student to the University Counseling Center, if so desired by the participant.
- IX. If after consultation with a faculty supervisor the participant is at a moderate to high risk for suicide, the student will be escorted immediately by the researcher to the University Counseling Center for further assistance from an on-call clinician.

## APPENDIX J

### Linehan Risk Assessment and Management Protocol (LRAMP)

#### SECTION 1: REASON FOR COMPLETION

##### 1. Reason for completing (Check all that apply):

- **History** of suicide ideation, suicide attempt, or non-suicidal self-injury at intake
- **New** (or first report of) suicide ideation and/or urges to self-injure
- **Increased** suicide ideation and/or urges to self-injure
- **Suicide communication** or other behavior indicating imminent suicide risk since last contact
- **Suicide attempt and/or self-injury** since last contact
- Suicide attempt and/or self-injury occurred or was **ongoing** during contact
- Other

##### 2. Describe the specific incident or behavior that occurred:

#### SECTION 2: SUICIDE RISK ASSESSMENT

##### 3. Structured Formal Assessment of Current Suicide Risk was:

- Conducted
- Not conducted, because

##### Clinical reasons (Check all that apply) :

- **Only baseline behaviors (typical for client)** ideation/urges to harm not ordinarily associated with increased imminent risk for suicide or for medically serious self-injury
- **No** or negligible **suicide/self-injury intent by time of contact**, impulse control appears acceptable, no new risk factors
- **No** or negligible **suicide/ self-injury intent by contact end**, impulse control appears acceptable, no new risk factors apparent, risk assessment conducted previously
- Self-injury that occurred was **not suicidal and superficial/minor** (e.g., scratch, took one extra pill of medication)
- Suicide communication or ideation best viewed as **escape behavior** and treatment aims better accomplished by targeting precipitants and vulnerability factors rather than by formal risk assessment
- Suicide communication or ideation best viewed as **operant behavior**; formal risk assessment may reinforce suicide ideation
- Client in ongoing treatment with another **primary therapist** who has recently or will soon
- assess and manage suicide risk; not of value to have two clinicians treating the same
- behavior.
- Referred client to other responsible clinician for evaluation
- Forgot, plan for follow up on:
- Other reason:

#### 4. Select Acute Suicide Risk Factors

ACUTE RISK FACTORS	Not Reported/ Not Observed	No	Somewhat	Yes	Comment
Current suicide intent, including client belief that he/she is going to commit suicide or hurt self	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Current suicide plan, rehearsals and/or preparation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Preferred method currently or easily available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Access to lethal means	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Perceived burdensomeness to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Current severe hopelessness or pessimism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Diminished concentration and impaired decision-making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Alcohol intoxication (currently or likely to be)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Severe loss of interest or pleasure (anhedonia)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Recent discharge from psychiatric hospital	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Currently or will be isolated or alone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Recent stressful life events (e.g. recent interpersonal losses, disciplinary and legal crises)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Recent diagnosis of a mental disorder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Recent diagnosis of chronic and/or life threatening physical illness (e.g., cancer, multiple sclerosis)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Client motivated to under-report/lie about risk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Population/Setting Specific ACUTE SUICIDE RISK FACTORS	Not Reported/ Not Observed	No	Somewhat	Yes	Comment
Psychiatric Inpatient: Suicide attempt at time of admission	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Psychiatric Inpatient: Escalating agitation, anxiety, and motor restlessness, particularly in conjunction with sleep difficulties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Jail/Prison: First week of incarceration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Youth: Exposure to recent suicide in media, community, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 5. Suicide protective factors

PROTECTIVE FACTORS	Not Reported/ Not Observed	No	Somewhat	Yes	Comment
Hope for the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Confidence in ability to solve or cope with problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Attachment to life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Responsibility to children, family, or others, including pets, who client would not abandon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Social support or connectedness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Attached to therapist, counselor, or other service provider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fear of suicide, death and dying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fear of social disapproval of suicide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Belief that suicide is immoral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Frequently attends religious services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Client motivated to over-report risk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### SECTION 3: SUICIDE RISK MANAGEMENT

#### 6. Treatment actions aimed at suicidal/self-injurious behaviors: (Check All that apply)

- A. Suicidal ideation and behavior **not explicitly targeted** in session (Check reasons)
- Client is **not imminently dangerous**
  - Same reasons as for not conducting structured formal suicide risk assessment
  - Risk assessment was sufficiently therapeutic.
  - Other:
- B. Did **behavioral analysis** of previous suicidal ideation and behaviors.
- C. Analyzed **chain of events** leading to and consequences of current suicidal/self-injurious ideation and behaviors
- Vulnerability Factors
  - Prompting Events
  - Behavior
  - Suicide Attempt
  - Non-suicidal self-injury
  - Increased suicide ideation and/or urges to self-injure
  - Suicide threat
  - Other (specify)
  - Consequences
  - Comments (Optional)
- D. Focused on **crisis intervention** and/or **problem solving** (Check all used):
- **Validated** current emotions and wish to escape or die (emotional support)
  - **Identified** events that have set off current crisis response
  - **Formulated** and summarized problem situation with client
  - Worked to remove, remediate **prompting events**
  - Gave advice and **offered solutions** to reduce suicidality
  - Challenged **maladaptive beliefs** related to suicide/self-injury
  - Coached to **use skills** client is learning in therapy
  - Clarified and **reinforced** adaptive client responses
  - Generated **hope** and reasons for living
  - **Emphatically** told the client not to commit suicide or self-injure
  - Other (specify)

COMMENTS (Optional) on crisis intervention:

E. Developed or reviewed existing **crisis plan**

F. Committed to a **plan of action**

- Client made credible **agreement** for crisis plan and no self-injury or suicide attempts until Quote from client (Optional)
- Client agreed to **remove lethal implements** (specify type; e.g., gun, drugs) by (how)

G. **Troubleshoot** factors that might interfere with plan of action:

H. Anticipated a **recurrence** of crisis response and developed a back-up crisis plan

I. **Increased social support**

- Planned for client to contact **social support** (specify who):
- **Alerted network** to risk (describe):
- Scheduled a **check-in** for

J. **Referred**

- To primary therapist :
- To clinician on-call at
- To crisis line (Ensured client had phone number)
- To medication evaluation:
- Other

K. **Hospitalization considered**; did not recommend because (check all that apply):

- Client is **not imminently dangerous**
- Other environmental support available
- Client can easily contact me if condition worsens
- Client previously hospitalized, benefit not apparent
- No bed available
- Client refused
- Client refused despite persistent argument by me in favor
- Client does not meet criteria for involuntary commitment
- Hospitalization would increase stigma and isolation which are important issues for this client
- Hospitalization would interfere with work or school which are important for this client,
- Hospitalization would violate already agreed to plan,
- Hospitalization would cause undue financial burden which is an important issue for this client
- Other

L. **Other** treatment actions taken (please describe):

APPENDIX K

**DEBRIEFING SHEET**

**Thank you for your participation!**

We realize that completing this study may bring up thoughts or feelings that you may want to discuss in more depth. If you would like to speak to someone who may provide further support, the following resources are available:

- Student Advocacy Resource Center (SARC).....243-6559
- University Counseling Center.....243-4711
- Clinical Psychology Center.....243-2367
- YWCA Missoula Main Line.....(406) 543-6691
- YWCA Missoula Crisis Line..... (406) 542-1944

Nationwide:

The information HelpLine

National Suicide Prevention Lifeline (available 24 hours a day).....1-800-273-8255

1 (800) 950-NAMI (6264) is an information and referral service which can be reached Monday through Friday, 10 am – 6 pm, Eastern time. You may also e-mail: [info@nami.org](mailto:info@nami.org).

Mental Health America (MHA) (800) 969-6642 [www.mentalhealthamerica.net](http://www.mentalhealthamerica.net)

If you are interested in receiving a copy of the preliminary results of the study, please write to me at the address listed below. Your request to receive a copy of the results will in **NO WAY be connected** to your responses on the survey.

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