Emotional Abuse in College Students: Gender Differences in Psychological Outcomes

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EMOTIONAL ABUSE IN COLLEGE STUDENTS: GENDER DIFFERENCES IN PSYCHOLOGICAL OUTCOMES

by

KAYLA BUSHONG

A thesis submitted in partial fulfillment of the requirements for the Honors in the Major Program in Psychology in the College of Sciences and the Burnett Honors College at the University of Central Florida Orlando, Florida

Summer Term, 2018

Thesis Chair: Amie Newins, Ph.D.
Abstract

Emotional abuse is defined as humiliation, controlling behavior, financial coercion, isolation, and threatening behavior, and both men and women experience emotional abuse. This paper examined the relationship between gender and the frequency of emotional abuse, the relationship between frequency of emotional abuse and mental health outcomes, and whether there are gender differences in the relationship between frequency of emotional abuse and mental health outcomes. A total of 101 college students who had been in a romantic relationship lasting at least six months completed an online survey assessing depression, anxiety, PTSD, self-esteem, and emotional abuse. Frequency of emotional abuse did not differ between men and women, and the relationship between emotional abuse and mental health symptoms did not vary by gender. However, frequency of emotional abuse was positively associated with symptoms of depression and PTSD. The study also found high rates of emotional abuse among college students. Therefore, the results of this study underscore the importance of providing college students with resources and supports related to emotional abuse.
DEDICATION

To those who have stood by me
through thick and thin
to be all that God has created me to be.
ACKNOWLEDGEMENTS

I would like to thank The Lord for helping me keep my eye on the prize, my family for their constant encouragement and support, and my mentors for always speaking the truth.
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Background

Intimate partner violence (IPV) is a devastating experience that affects a significant proportion of the global population (Devries et al., 2013). Saltzman, Fanslow, McMahon, and Shelley (1999) define IPV as physical, psychological, emotional, and sexual abuse that occurs between partners in a romantic relationship. It is estimated that physical violence occurs in more than 25% of intimate relationships (McHugh & Frieze, 2006). In one study, approximately one in five people reported they had experienced IPV in their adult life, and the prevalence of IPV in dating and cohabitating relationships was almost identical to that of marital relationships (McCauley et al., 1995).

While both men and women experience IPV, research suggests that women are more likely to experience IPV than men. Specifically, women are 1.3 times more likely than men to experience any IPV (Coker et al., 2002) and 2.9 times likely than men to report being physically assaulted by a current or former romantic partner at some point in their lives (Tjaden & Thoennes, 2000). However, it is important to note that, in one sample, 14.6% of men reported experiencing physical abuse and 50.9% reported experiencing emotional abuse perpetrated by a romantic partner (Hester, Jones, Williamson, Fahmy, & Feder, 2017). Furthermore, when asked behaviorally specific questions, 52.5% of men endorsed at least one experience consistent with the definition of IPV at some point in their lives, but when asked if they had experienced IPV, only 8.5% of men endorsed this item (Hester et al., 2017). Importantly, in a sample of male and female college students in romantic relationships, 76% endorsed mutual perpetration of some form of IPV (Dowgwillo, Ménard, Krueger, & Pincus, 2016).
What is Emotional Abuse?

The U.S. Department of Justice defines emotional abuse as actions or words that damage one’s self-esteem (e.g., constant criticism, name calling; Domestic Violence, n.d.). Consistent with this definition, Saltzman, Fanslow, McMahon, and Shelley (1999) define emotional abuse as humiliation, controlling behavior, financial coercion, isolation, and threatening behavior. Though a review of literature has shown that researchers have used the terms psychological and emotional abuse interchangeably (e.g., Ratner, 1993; Simonelli & Ingram, 1998), the term “emotional abuse” will be used in this paper.

How prevalent is Emotional Abuse?

In one sample of adult women who had either been married or had cohabitated with their male partner in the previous year, the prevalence of emotional abuse was 13.1%, and almost all participants who had been physically abused had also experienced emotional abuse (Ratner, 1993). In another study, many women who had experienced physical abuse reported also experiencing more than one form of emotional abuse including restriction (i.e., social or financial isolation), jealousy, and ridicule (Follingstad, Rutledge, Berg, Hause, & Polek, 1990). In a study of college women, 11% of those who reported they had experienced some form of abuse endorsed experiencing emotional abuse (Bottoms et al., 2016).

Men also experience emotional abuse at concerning rates. In fact, male undergraduate students report experiencing emotional abuse in dating relationships in the form of jealousy, withdrawal, and diminished self-esteem (Simonelli & Ingram, 1998). In a sample of adults who had been in a romantic relationship for at least a year, young men had the highest rates of
emotional abuse (Karakurt & Silver, 2013). Importantly, while the prevalence of IPV among women seems to be decreasing, prevalence among men seems to be increasing (Karakurt & Silver, 2013). In a more recent study, the odds of experiencing emotional abuse did not vary by gender (Começanha, Basto-Pereira, & Maia, 2017). However, a different study of male and female college students found that women were twice as likely as men to have experienced emotional abuse in the previous year (Vidourek, 2017).

**What are the effects of Emotional Abuse/IPV?**

Intimate partner violence has significant long-term effects on the physical and mental health of the survivors. Rates of posttraumatic stress disorder (PTSD) are significantly higher among women who experienced IPV compared to women who had not experienced IPV (Pico-Alfonso, 2005). Although many women experienced multiple traumatic events, approximately 80% of women who had experienced IPV attributed their PTSD symptoms to their IPV experiences (Pico-Alfonso, 2005). Another study found that women who were currently experiencing IPV reported higher levels of anxiety, somatization, and depression symptoms and lower levels of self-esteem than those that were not currently experiencing IPV (McCauley et al., 1995). Women who have experienced physical battering showed significantly higher levels of anxiety and depression as well as more somatic symptoms than women who had never experienced physical IPV (Jaffe, Wolfe, Wilson, & Zak, 1986). Women who have experienced IPV are more likely to engage in binge drinking behaviors, be overweight, and report poorer mental health than women without a history of IPV (Bosch, Weaver, Arnold, & Clark, 2017). Wives who had experienced emotional abuse had greater depression, social dysfunction,
anxiety, and somatic complaints than wives that had not experienced abuse (Ratner, 1993).

Research has shown that emotional abuse has far reaching consequences. Children who have experienced emotional abuse are more likely to experience social anxiety because their psychological needs are not met and their self-esteem is lowered (Bu, Chen, Guo, & Lin, 2017). Children who had experienced physical abuse, emotional abuse, and neglect were more likely to have diagnoses of PTSD, depressive disorders, and anxiety disorders than children who had not experienced these forms of abuse (Norman et al., 2012). Among college students in romantic relationships, childhood emotional abuse was associated with higher levels of adult attachment anxiety and attachment avoidance (Riggs & Kaminski, 2010). In a different sample of college students, those who had experienced childhood emotional abuse reported higher levels of stress and depression when faced with challenges in adulthood (Shapero et al., 2014). In a longitudinal study of college males and females over one year, childhood emotional abuse served as a risk factor for both adolescent sexual abuse perpetration and victimization (Zurbriggen, Gobin, & Freyd, 2010). Frequency of childhood abuse demonstrated a dose response with risk of experiencing depression in a study of adults (Felitti et al., 1998). Women who experienced emotional abuse in childhood report greater physical and psychological distress, more serious illnesses, and lower ratings of physical health than non-abused women (Moeller, Bachmann, & Moeller, 1993) and greater levels of stress later in life than women who have not experienced emotional abuse (Goodman, Gutarra, Billingsley, Keiser, & Gitari, 2017). Additionally, women who experienced emotional abuse in childhood are more likely to endorse depression, anxiety, PTSD, and somatic symptoms in adulthood (Spertus, Yehuda, Wong, Halligan, & Seremetis, 2017).
Limited research has examined the specific effects of emotional abuse on mental health outcomes above and beyond IPV more broadly. When examining the relationship between types of abuse in romantic relationships and depression in adult females, only emotional abuse was associated with increased risk of depression over up to a two-year follow-up period; however, it is important to note that individuals were only coded as having experienced a given type of abuse when they experienced that abuse type at least once a week in the past year (Estefan, Coulter, & VandeWeerd, 2016).

Research suggests that women endorse more psychological consequences as a result of IPV than men. Among individuals who have experienced physical IPV, women report more injury and mental health concerns than men (Tjaden & Thoennes, 2000). Men who have experienced IPV report lower levels of depressive symptoms than women who have experienced IPV (Gehring & Vaske, 2017; Renner, Habib, Stromquist, & Peek-Asa, 2014).

**Current Study**

There were two goals for this study: (1) to determine whether the prevalence of emotional abuse among college students differs by gender; and (2) to examine the moderating effect of gender in the relationship between emotional abuse victimization and psychological outcomes (i.e., depression, anxiety, PTSD, and self-esteem). Specifically, we hypothesized that (1) women would endorse experiencing more instances of emotional abuse than men, (2) frequency of emotional abuse would be positively associated with symptoms of depression, anxiety, and posttraumatic stress disorder (PTSD) and negatively associated with self-esteem, and (3) women
would report more severe mental health outcomes of emotional abuse than men.
Method

Participants

Participants were recruited from the University of Central Florida Psychology Department’s SONA system; therefore, participants were undergraduate students in Psychology courses at UCF. A total of 251 participants started the study; 174 of whom met the inclusion criterion of having been in a relationship for at least six months. Participants who completed the survey so quickly as to be in the bottom 10% of completion times (n = 18) and participants who responded incorrectly to one or more of the random responding items (n = 54) were excluded from the analyses due to concerns about the data validity. Finally, because gender effects were examined and because only one participant identified their gender as neither male nor female, this participant was excluded from analyses. Therefore, the final sample included 101 participants. A power analysis conducted in G*Power, Version 3 (Faul, Erdfelder, Lang, & Buchner, 2007), indicated a sample of 128 participants will provide 80% power to detect a medium effect size (i.e., $f = .25$) interaction between gender and emotional abuse in an ANCOVA model. Participant demographics are presented in Table 1.

Measures

Demographics Questionnaire. Participants provided background information by completing a demographics questionnaire (See Appendix A). The information collected includes race, gender, age, and relationship status.

Emotional abuse. The Multidimensional Measure of Emotional Abuse (MMEA; Murphy & Hoover, 1999; See Appendix B) was used to assess emotional abuse in the context of romantic
relationships. This measure assesses 28 different behaviors that are consistent with emotional abuse (Murphy & Hoover, 1999). For each item, participants were asked to provide two ratings – one to indicate the frequency with which they engaged in each behavior during the last six months of the relationship (i.e., perpetration) and one to indicate the frequency with which their partner engaged in each behavior during the last six months of the relationship (i.e., victimization). This measure assesses four subtypes of emotional abuse: restrictive engulfment, denigration, hostile withdrawal, and dominance/intimidation (Murphy, Taft, & Eckhardt, 2007). Restrictive engulfment refers to actions meant to control the other person socially or personally (e.g., isolation and jealousy). Denigration refers to actions intended to humiliate and lower the self-esteem of the partner. Hostile withdrawal refers to actions intended to create insecurity and anxiety about the relationship including coldness and withholding emotional availability. Dominance/intimidation refers to actions intended to create fear through aggressive verbal or physical behavior (Murphy, Taft, & Eckhardt, 2007). The MMEA is scored by summing all the items: 0 (Never in the last 6 months of the relationship), 1 (once), 2 (twice), 4 (3-5 times), 8 (6-10 times), 15 (11-20 times), and 25 (more than 20 times; C. Murphy, personal communication, June 4, 2017). Higher scores indicate greater frequency of emotional abuse. The measure was found to have strong reliability among the four subsections for victimization and perpetration (Bonechi & Tani, 2011). The restrictive engulfment ($\alpha = .84$ to .85), hostile withdrawal ($\alpha = .88$ to .91), denigration ($\alpha = .89$ to .92), and dominance/intimidation ($\alpha = .83$ to .91) subscales, all showed good internal consistency. Discriminant and predictive validity of scores from the MMEA have been demonstrated (Bonechi & Tani, 2011).
Physical and psychological IPV. The Abusive Behavior Inventory Partner Form (ABI; Shepard & Campbell, 1992; See Appendix C) is a 30-item measure that was used to assess physical and psychological abuse in romantic relationships. Participants were asked to indicate the frequency with which their partner engaged in each of the behaviors listed using a 5-point Likert scale from 1 (Never) to 5 (Very Frequently). Scores from the ABI have been shown to be reliable ($\alpha = .70$ to $\alpha = .92$); criterion, construct, and factorial validity have also been demonstrated (Shepard & Campbell, 1992).

Childhood abuse. The Childhood Trauma Questionnaire Short Form (CTQ-SF; Bernstein, Ahluvalia, Pogge, & Handelsman, 1997; See Appendix D) was used to assess childhood emotional, physical, and sexual abuse. The measure consists of 25 questions to which participants respond using a 5-point Likert scale from 1 (Never True) to 5 (Very Often True). The CTQ-SF has five subscales: emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. Reliability ($\alpha = .92$) and discriminant validity of the total score has been demonstrated (Gerdner & Allgulander, 2009).

Other traumatic events. The Life Events Checklist for DSM-5 (LEC-5; Weathers et al., 2013; See Appendix E) was used to assess a broad range of traumatic events (e.g., natural disasters, fires or explosions, physical assaults) that participants may have experienced, witnessed, heard about, or experienced as part of their job. The previous version of LEC was shown to demonstrate good test-retest reliability and inter-rater reliability with interviews assessing trauma history (Gray, Litz, Hsu, & Lombardo, 2004). The LEC was also found to have strong convergent, divergent, and factorial validity (Bae, Kim, Koh, Kim, & Park, 2008).
**PTSD symptoms.** The PTSD Checklist for DSM-5 (PCL-5) was used to assess symptoms of PTSD (PCL-5; Weathers et al., 2013; See Appendix F). This measure was only administered to participants who endorsed at least one experience of emotional abuse. Participants were asked to complete the items in relation to the emotional abuse experience that bothers them the most. The PCL-5 is composed of 20 items, which correspond to the 20 symptoms of PTSD listed in the *Diagnostic and Statistical Manual for Mental Disorders, Fifth Edition* (DSM-5; American Psychological Association, 2013). Participants were asked to indicate how much they have been bothered by each symptom in the past month using a 0 (*not at all*) to 4 (*extremely*) scale. A total score is computed by summing participant’s responses to all 20 items; higher scores indicate higher levels of PTSD symptoms. Test-retest reliability of PCL-5 total scores (*r* = .82) in a sample of undergraduate psychology college students is good, and internal consistency (*α* = .94) is excellent (Blevins, Weathers, Davis, Witte, & Domino, 2015). Blevins and colleagues also demonstrated strong convergent (*rs* = .74 to .85) and moderate divergent (*rs* = .31 to .60) validity for PCL-5 scores.

**Self-esteem.** The Rosenberg Self-Esteem Scale was used to measure self-esteem (RSES; Rosenberg 1965; See Appendix G). The scale contains 10 items that evaluate both negative and positive feelings toward one’s self. Participants rate the degree to which they agree with each self-statement on a four-point Likert scale (1 = *strongly disagree* to 4 = *strongly agree*). Negatively worded items are reverse scored, and then a total score is computed by summing item scores. Higher total scores reflect higher self-esteem. Scores from this measure have demonstrated strong reliability as well as strong convergent and divergent validity (Robins,
Hendin, & Trzesniewski, 2001).

**Other mental health symptoms.** The Patient Health Questionnaire – Somatic, Anxiety, and Depressive Symptoms (PHQ-SADS; Spitzer, Williams, & Kroenke; Appendix H) was used to assess symptoms of anxiety and depression as well as stress-related physical symptoms. The PHQ-SADS is comprised of the PHQ-15, Generalized Anxiety Disorder – 7 item scale (GAD-7), PHQ-9, and items assessing panic symptoms (Kroenke, Spitzer, Williams, & Löwe, 2010). The PHQ-15 includes 15 items designed to assess somatic symptoms; participants indicate how much they have been bothered by each symptom in the past four weeks on a 0 (Not bothered) to 2 (Bothered a lot) scale. The PHQ-15 is scored from 0 to 30 with higher scores relating to higher somatic symptoms. Internal consistency (α = .87) and construct and concurrent validity of the PHQ-15 has been demonstrated (Han et al., 2009). The GAD-7 is a seven-item measure of anxiety symptoms. Participants indicated the frequency with which they experienced each symptom over the past two weeks on a 0 (Not at all) to 3 (Nearly every day) scale. The GAD-7 is scored from 0 to 27 with higher scores relating to greater anxiety symptoms. Internal consistency of the GAD-7 is good (α = .89) and construct validity has been demonstrated (Löwe et al., 2008). The PHQ-9 is a nine-item measure of depression symptoms. The rating scale is identical to the GAD-7 and is scored from 0 to 21 with higher scores relating to greater depressive symptoms. Studies have shown that scores from the PHQ-9 are reliable and valid (Cameron, Crawford, Lawton, & Reid, 2008). The PHQ-SADS also contains five dichotomous items assessing panic attacks and panic symptoms and one item assessing impairment resulting from the symptoms assessed by the PHQ-SADS.
Random responding. Several items designed to detect random responding were interspersed throughout the survey. These questions were modeled off the questionnaire in which the question was included (e.g., “I would like a salad, select Strongly Disagree.”).

Procedure

Participants accessed SONA on an electronic device of their choice. Once participants signed up for the study on the SONA system, they were provided with a secure link to the study measures. Prior to beginning the study, participants were provided with information about the study procedures, possible risks, and potential benefits; consent to participate was indicated by the student choosing to continue to the study measures after being provided with this information. All study measures were completed in Qualtrics.

Statistical Analyses

All statistical analyses were conducted in SPSS, Version 23. Scores were computed as noted above. Four participants had missing data on at least one item on at least one study measure (All four participants missed items on the MMEA; three were missing one item and one was missing two); modal values were imputed for missing item responses. None of the 101 participants included in the analyses had missing responses for more than two items on the MMEA. Participants were classified into two groups (i.e., did not experience emotional abuse vs. did experience emotional abuse) based on whether they indicate that their partners engaged in any of the behaviors listed on the MMEA. To determine if the prevalence of emotional abuse victimization differed by gender, a chi-square test of independence was run. A t-test was conducted to determine if the frequency of the abuse differed by gender. To determine if the
relationship between frequency of emotional abuse and mental health symptoms differed between men and women, moderation analyses were conducted separately for each mental health outcome (i.e., depression symptoms, anxiety symptoms, PTSD symptoms, and self-esteem). Since, previous research has found that childhood abuse is a predictor of adult physical and mental health issues (Springer, Sheridan, Kuo, & Carnes, 2007) and that physical IPV is associated with increased mental health problems (Coker et al., 2002), total scores from the CTQ-SF and ABI were included as covariates. Frequency of emotional abuse was mean centered, gender was dummy coded (men = 0, women = 1), and then the interaction term between gender and frequency of emotional abuse was created. Hierarchical regression analyses were conducted in which the covariates were entered in the first step, gender and severity of emotional abuse were entered in the second step, and the interaction term was entered in the third step. When the interaction term was not statistically significant, it was removed, and the analysis was re-run with only the two other steps. The interaction term was never statistically significant, so no probing of the interaction was necessary.
Results

Descriptive statistics for all study measures are presented in Table 2 (Appendix B). A chi-square test of independence to examine the relationship between gender and likelihood of having experienced emotional abuse could not be conducted because only four participants indicated they had not experienced emotional abuse in a romantic relationship lasting at least six months. The independent samples t-test examining whether the frequency of emotional abuse differed between men ($M = 54.32$, $SD = 63.77$) and women ($M = 41.23$, $SD = 44.69$) was not statistically significant ($t(99) = 1.15$, $p = .25$).

The interaction between gender and MMEA score was not statistically significant in any of the regression analyses; therefore, all regressions were rerun with the interaction term removed (i.e., with only steps 1 and 2 of the hierarchical regression analysis). Results of the regression analyses are presented in Table 3 (Appendix C). In the regression examining PHQ-9 score as the outcome, although the addition of gender and MMEA score did significantly improve the amount of variance explained ($R^2 = .21$, $\Delta R^2 = .05$, $F(2,96) = 3.25$, $p = .043$), neither predictor had a statistically significant effect. Only the effect of CTQ-SF score was statistically significant on PHQ-9 score such that higher levels of childhood abuse were associated with higher levels of depression symptoms. In the regression examining GAD-7 score as the outcome, the addition of gender and MMEA score significantly increased the amount of variance explained ($R^2 = .21$, $\Delta R^2 = .08$, $F(2,96) = 4.56$, $p = .013$), and the effects of both CTQ-SF and MMEA scores were statistically significant. Higher levels of childhood and emotional abuse were associated with higher levels of anxiety symptoms. In the regression examining
PCL-5 score as the outcome, the addition of gender and MMEA score was statistically
significant ($R^2 = .31$, $\Delta R^2 = .14$, $F(2,96) = 9.58$, $p < .001$). ABI and MMEA scores were
statistically significant predictors of PCL-5 scores; higher levels of physical and emotional abuse
were associated with higher levels of PTSD symptoms. In the regression examining RSES score
as the outcome, adding gender and MMEA to the model did not explain a statistically significant
amount of additional variance in RSES score ($R^2 = .17$, $\Delta R^2 = .01$, $F(2,96) = 0.78$, $p = .460$).
Only CTQ-SF score was a statistically significant predictor of RSES score, and higher levels of
childhood abuse was associated with higher levels of self-esteem.
Discussion

The purpose of this study was to investigate the relationship between gender and prevalence of emotional abuse and to analyze differences in mental health outcomes from emotional abuse by gender. The first hypothesis, which predicted that women would be more likely to experience emotional abuse and would report higher frequency of emotional abuse in romantic relationships, was not supported by the data. The first part of the hypothesis could not be tested, because only four participants in the sample indicated that their partner did not engage in any of the behaviors assessed by the MMEA, resulting in too small of a sample that did not experience emotional abuse to run any statistical analyses. The fact that only four participants in the sample who have been in a romantic relationship for at least six months reported not experiencing emotional abuse seems to indicate that emotional abuse is extremely prevalent in romantic relationships among college students. In this study, there was no statistically significant difference in the frequency of emotional abuse between men and women, which is consistent with previous research that found no difference in prevalence between genders (Começanha, Basto-Pereira, & Maia, 2017). However, others have found that men are less likely to experience emotional abuse than women (Vidourek, 2017). Given that both of the previous studies and the current study evaluated the prevalence of emotional abuse in college students, these conflicting findings suggest that continued research on gender differences is warranted.

The second hypothesis that emotional abuse would be associated with more severe mental health outcomes was partially supported. Higher levels physical abuse and emotional abuse were associated with higher levels of PTSD, and higher levels of childhood abuse and
emotional abuse were associated with higher levels of anxiety symptoms. These findings are consistent with existing literature which found that women who have experienced emotional abuse endorse higher levels of depression, anxiety, and PTSD symptoms than women who have not experienced emotional abuse (Spertus, Yehuda, Wong, Halligan, & Seremetis, 2003). Additionally, childhood emotional abuse was a predictor of adult depression, anxiety, and PTSD symptoms in college students (Norman et al., 2012). Taken together, these studies seem to demonstrate a robust relationship between emotional abuse and negative mental health outcomes. In contrast, only childhood abuse was associated with depression symptoms and self-esteem scores. Surprisingly, although child abuse was positively associated with depression symptoms, it was also positively associated with self-esteem. A longitudinal study of 698 children beginning in the prenatal period and ending between 30 and 32 years old found that one-third of high-risk children (including those who experienced abuse) develop into healthy adults through resiliency (Werner, 1989). Werner defines resiliency as “successful adaptation following exposure to stressful life events” (1989). By the age of 20 months, the resilient children had noticeably different temperaments (e.g., “good-natured”, “affectionate”, and “easy to deal with”) than the high-risk children who developed mental health problems (Werner, 1989). Werner concludes that temperamental qualities, emotional ties and support in the family during stressful times, and support systems outside the family affect the outcome of the high-risk children’s development into adulthood. Additionally, Rutter (1985) states that self-esteem is a successful coping mechanism after experiencing adversity. The finding regarding depression is consistent with previous research (e.g., Norman et al., 2012).
The third hypothesis, which posited that the relationship between emotional abuse and mental health outcomes would vary by gender, was not supported by the data. These findings are inconsistent with existing literature which has found that women report higher levels of depressive symptoms than men following IPV (Gehring & Vaske, 2017; Renner, Habib, Stromquist, & Peek-Asa, 2014). Coupled with the findings regarding the high rates of emotional abuse among college students in romantic relationships and the lack of differences in frequency of emotional abuse by gender, this result underscores the importance of ensuring that services and resources are available to all college students.

One limitation of the current study is that the sample was composed primarily of participants who identified as White and female. However, Hispanic ethnicity was asked separately from race and 33% of respondents reported Hispanic ethnicity, which suggests a strong Hispanic representation. Although there is a large percentage of Hispanics in this sample, the results may not generalize to more diverse samples. Additionally, power to detect a significant interaction effect may have been limited by the small number of men. Furthermore, due to the small number of participants who identified their gender as non-binary, we could only examine gender differences between men and women. Furthermore, all participants are college students, so results may not generalize to non-college samples. The largest limitation to this study is that, due to time constraints, we were unable to recruit the number of participants the power analysis had indicated, meaning some of the analyses may have been underpowered.

Future studies should seek to examine these relationships in larger and more diverse samples. Also, assessing emotional abuse in other relationships, such as in friendship and among
Coworkers, would be an important extension of these results.

In summary, this paper sought to examine gender differences in mental health outcomes of those who have experienced emotional abuse in romantic relationships. Our data suggests that men and women experience emotional abuse at similar frequencies and that the mental health outcomes following emotional abuse do not differ by gender. Furthermore, these results indicate that many college students experience emotional abuse in their romantic relationships. These findings underscore the importance of making resources and services for emotional abuse available to college students.
Appendix A
Table 1

Sample Demographic Information

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<th>Variable</th>
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<th>n</th>
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<tbody>
<tr>
<td>Male</td>
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</tr>
<tr>
<td>Female</td>
<td>73</td>
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<th>Hispanic or Latino(a)^a</th>
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<td>Yes</td>
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<td>70.3%</td>
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<td>14.9%</td>
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<td>Asian American/Asian Origin/Pacific Islander</td>
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<td>5.0%</td>
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<td>Middle Eastern</td>
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<td>Bi-racial</td>
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<tr>
<td>Other</td>
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<td>87</td>
<td>86.1%</td>
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<td>2.0%</td>
</tr>
<tr>
<td>Bisexual</td>
<td>10</td>
<td>9.9%</td>
</tr>
<tr>
<td>Questioning</td>
<td>1</td>
<td>1.0%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year in College</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1(^{st}) Year</td>
<td>31</td>
<td>30.7%</td>
</tr>
<tr>
<td>2(^{nd}) Year</td>
<td>19</td>
<td>18.8%</td>
</tr>
<tr>
<td>3(^{rd}) Year</td>
<td>21</td>
<td>20.8%</td>
</tr>
<tr>
<td>4(^{th}) Year</td>
<td>22</td>
<td>21.8%</td>
</tr>
<tr>
<td>5(^{th}) Year</td>
<td>3</td>
<td>3.0%</td>
</tr>
<tr>
<td>6(^{th}) Year and Beyond</td>
<td>5</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residence</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>On-campus residence hall</td>
<td>23</td>
<td>22.8%</td>
</tr>
<tr>
<td>Fraternity or sorority house</td>
<td>1</td>
<td>1.0%</td>
</tr>
<tr>
<td>Other university housing</td>
<td>6</td>
<td>5.9%</td>
</tr>
<tr>
<td>Off-campus, non-university housing</td>
<td>51</td>
<td>50.5%</td>
</tr>
<tr>
<td>Parent or guardian’s house</td>
<td>20</td>
<td>19.8%</td>
</tr>
</tbody>
</table>

21
<table>
<thead>
<tr>
<th>Relationship Status</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am not in a romantic relationship</td>
<td>34</td>
<td>33.7%</td>
</tr>
<tr>
<td>I am causally dating one person</td>
<td>9</td>
<td>8.9%</td>
</tr>
<tr>
<td>I am casually dating more than one person</td>
<td>3</td>
<td>3.0%</td>
</tr>
<tr>
<td>I am in a serious and committed relationship, but not married or living with my partner</td>
<td>36</td>
<td>35.6%</td>
</tr>
<tr>
<td>I am living with my partner, but not engaged or married</td>
<td>13</td>
<td>12.9%</td>
</tr>
<tr>
<td>I am engaged</td>
<td>1</td>
<td>1.0%</td>
</tr>
<tr>
<td>I am married or in a domestic partnership</td>
<td>5</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Greek Organization</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>10</td>
<td>9.9%</td>
</tr>
<tr>
<td>No</td>
<td>91</td>
<td>90.1%</td>
</tr>
</tbody>
</table>

*Note. *Hispanic ethnicity was a separate question from race.*
Appendix B
Table 2

*Descriptive Statistics for Study Measures*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Full Sample N = 101</th>
<th>Men n = 28</th>
<th>Women n = 73</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMEA</td>
<td>44.86 (SD = 50.70)</td>
<td>54.32 (SD = 63.77)</td>
<td>41.23 (SD = 44.69)</td>
</tr>
<tr>
<td>ABI</td>
<td>37.03 (SD = 10.77)</td>
<td>36.64 (SD = 8.62)</td>
<td>37.18 (SD = 11.54)</td>
</tr>
<tr>
<td>CTQ-SF</td>
<td>45.60 (SD = 16.77)</td>
<td>43.14 (SD = 10.87)</td>
<td>46.55 (SD = 18.52)</td>
</tr>
<tr>
<td>PHQ-9</td>
<td>6.29 (SD = 5.87)</td>
<td>4.54 (SD = 4.93)</td>
<td>6.96 (SD = 6.09)</td>
</tr>
<tr>
<td>GAD-7</td>
<td>5.66 (SD = 5.09)</td>
<td>4.29 (SD = 4.43)</td>
<td>6.19 (SD = 5.25)</td>
</tr>
<tr>
<td>PCL-5</td>
<td>12.89 (SD = 13.85)</td>
<td>11.54 (SD = 12.75)</td>
<td>13.41 (SD = 14.29)</td>
</tr>
<tr>
<td>RSES</td>
<td>18.86 (SD = 5.60)</td>
<td>17.75 (SD = 6.08)</td>
<td>19.29 (SD = 5.39)</td>
</tr>
</tbody>
</table>

*Note.* ABI = FILL IN; CTQ-SF = Childhood Trauma Questionnaire – Short Form; GAD-7 = Generalized Anxiety Disorder 7 Item Questionnaire; MMEA = Multidimensional Measure of Emotional Abuse; PCL-5 = Posttraumatic Stress Disorder Checklist; PHQ-9 = Patient Health Questionnaire 9 Item Depression Questionnaire; RSES = Rosenberg Self-Esteem Scale.
Appendix C
<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHQ-9</td>
<td>CTQ-SF</td>
<td>.11</td>
<td>.31</td>
<td>3.27</td>
<td>.001</td>
</tr>
<tr>
<td>ABI</td>
<td></td>
<td>.05</td>
<td>.10</td>
<td>.95</td>
<td>.343</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>2.3</td>
<td>.18</td>
<td>1.93</td>
<td>.056</td>
</tr>
<tr>
<td>MMEA</td>
<td></td>
<td>.02</td>
<td>.19</td>
<td>1.99</td>
<td>.061</td>
</tr>
<tr>
<td>GAD-7</td>
<td>CTQ-SF</td>
<td>.09</td>
<td>.29</td>
<td>2.98</td>
<td>.004</td>
</tr>
<tr>
<td>ABI</td>
<td></td>
<td>.03</td>
<td>.06</td>
<td>.61</td>
<td>.543</td>
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<tr>
<td>Gender</td>
<td></td>
<td>1.94</td>
<td>.17</td>
<td>1.86</td>
<td>.065</td>
</tr>
<tr>
<td>MMEA</td>
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<td>.03</td>
<td>.26</td>
<td>.26</td>
<td>.011</td>
</tr>
<tr>
<td>PCL-5</td>
<td>CTQ-SF</td>
<td>.04</td>
<td>.05</td>
<td>.58</td>
<td>.566</td>
</tr>
<tr>
<td>ABI</td>
<td></td>
<td>.30</td>
<td>.23</td>
<td>2.34</td>
<td>.021</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>3.04</td>
<td>.10</td>
<td>1.15</td>
<td>.253</td>
</tr>
<tr>
<td>MMEA</td>
<td></td>
<td>.11</td>
<td>.41</td>
<td>4.34</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>RSES</td>
<td>CTQ-SF</td>
<td>.14</td>
<td>.41</td>
<td>4.12</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>ABI</td>
<td></td>
<td>-.06</td>
<td>-.11</td>
<td>-1.05</td>
<td>.299</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>1.23</td>
<td>.01</td>
<td>1.05</td>
<td>.298</td>
</tr>
<tr>
<td>MMEA</td>
<td></td>
<td>.01</td>
<td>.09</td>
<td>.81</td>
<td>.418</td>
</tr>
</tbody>
</table>

*Note. ABI = FILL IN; CTQ-SF = Childhood Trauma Questionnaire – Short Form; GAD-7 = Generalized Anxiety Disorder 7 Item Questionnaire; MMEA = Multidimensional Measure of Emotional Abuse; PCL-5 = Posttraumatic Stress Disorder Checklist; PHQ-9 = Patient Health*
Questionnaire 9 Item Depression Questionnaire; RSES = Roesnberg Self-Esteem Scale.
Appendix D
Approval of Human Research

From: UCF Institutional Review Board #1
FWA00000351, IRB00001138

To: Amie R. Newins, PhD and Co-PI: Kayla Bushong, Psychology

Date: March 28, 2018

Dear Researcher:

On 03/28/2018 the IRB approved the following human participant research until 03/27/2019 inclusive:

Type of Review: UCF Initial Review Submission Form
Expedited Review Category #7

Project Title: Online survey of college students’ experiences in romantic relationships

Investigator: Amie R. Newins, PhD

IRB Number: SBE-18-13765

Funding Agency: Grant
Title: N/A

The scientific merit of the research was considered during the IRB review. The Continuing Review Application must be submitted 30 days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form cannot be used to extend the approval period of a study. All forms may be completed and submitted online at https://iris.research.ucf.edu.

If continuing review approval is not granted before the expiration date of 03/27/2019, approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Participants or their representatives must receive a copy of the consent form(s).

All data, including signed consent forms if applicable, must be retained and secured per protocol for a minimum of five years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained and secured per protocol. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.
This letter is signed by:

Kamille Chaparro

Signature applied by Kamille Chaparro on 03/28/2018 08:44:08 AM EDT

Designated Reviewer
References


doi:10.1177/0886260514564155


doi:[10.10162016.11.015](10.10162016.11.015)


29(1), 181-193. doi:10.1016.2004.08.010


doi:10.1080/10926770903475976


doi:10.1192147.6.598


Shapero, B. G., Black, S. K., Liu, R. T., Klugman, J., Bender, R. E., Abramson, L. Y., & Alloy,


