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The Prevalence of Mental Health Problems in Men Arrested for Domestic Violence

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Abstract

The problem of male perpetrated intimate partner violence (IPV) is widespread. In an effort to identify risk factors for perpetrating IPV, researchers have examined mental health problems among perpetrators. However, the majority of research in this area has examined personality psychopathology and/or limited their investigation to posttraumatic stress disorder (PTSD) or depression. Thus, the present study examined self-reported Axis I psychopathology among men arrested for domestic violence ($N = 308$). Results replicated past research showing high rates of PTSD and depression. In addition, the prevalence of generalized anxiety disorder (GAD), panic disorder, social phobia, and alcohol and drug disorders were very high. All types of mental health problems were positively associated with aggression perpetration. Males meeting probable diagnostic classification reported significantly more frequent aggression than males not meeting diagnostic classification, even after controlling for social desirability. Directions for future research and implications of these findings are discussed.

Keywords

Domestic violence; aggression; mental health; social desirability

Intimate partner violence (IPV) is a widespread problem. Every year over 20% of women will experience at least one act of physical or sexual aggression from a male partner (Tjaden & Thoennes, 2000), with even more women being victimized by psychological aggression (Ro & Lawrence, 2007). While the majority of IPV is experienced as low levels of violence, similar to a common couple violence typology (Johnson, 1995, 2006), a portion of IPV perpetrated by men is quite severe, similar to an intimate terrorism classification (Johnson, 1995, 2006). These victimization experiences are often associated with injuries and other physical health complaints (Archer, 2000), as well as an increase in mental health symptomatology (Follingstad, 2009; Golding, 1999). It should be noted that men are also victimized at shockingly high rates in their intimate relationships (Archer, 2000), sometimes quite severe in nature (Hines & Douglas, 2010), which is often associated with an increase in their mental health symptomatology (see Hines & Malley-Morrison, 2001, for review). However, male perpetrated aggression is generally recognized to be more severe than female perpetrated aggression (Archer, 2000), placing females at greater risk for adverse health outcomes. Therefore, it is imperative that risk factors and correlates of aggression perpetration among males be identified, as these could potentially become the targets of intervention programs aimed at the amelioration of IPV.

One factor related to the perpetration of IPV among men is mental health symptomatology. For instance, research has shown that antisocial personality disorder (ASPD) and borderline personality disorder (BPD) traits are associated with the perpetration of IPV (Dutton, Starzomski, & Ryan, 1996; Stuart et al., 2008). In addition, Holtzworth-Munroe and Stuart's (1994) typologies of IPV perpetrators were defined, in part, by borderline/dysphoric (BD) and generally violent/antisocial (GVA) features, both of which are associated with increased rates of perpetration (Holtzworth-Munroe, Meehan, Herron, Rehman, & Stuart, 2000). In addition, these conditions are often predictive of who recidivates after participating in batterer intervention programs (BIP) (Gondolf, 1999; Hamberger, Lohr, Bonge, & Tolin, 1996). Although these findings are important, and individuals with borderline and/or antisocial traits often perpetrate severe physical, sexual, and psychological aggression (Holtzworth-Munroe et al., 2000; Holtzworth-Munroe & Stuart, 1994), not all male perpetrators of IPV will evidence personality psychopathology. Axis I psychopathology, such as mood and anxiety disorders, may also be related to male perpetrated IPV and therefore warrants attention from researchers.

Research has shown mental health problems that fall under Axis I conditions are associated with increased rates of male perpetrated IPV. For instance, there is an accumulating body of research that indicates increased symptoms of posttraumatic stress disorder (PTSD) are associated with the perpetration of IPV among men (see Bell & Orcutt, 2009, for review). It is theorized hyperarousal symptoms and anger associated with PTSD are potential causes for the increased rates of aggression seen among individuals with the disorder (Taft et al., 2007). In addition, research has shown increased depressive symptoms are related to increased rates of perpetrating IPV among men. For instance, Maiuro, Cahn, Vitaliano, Wagner, and Zegree (1988) found male perpetrators of IPV had significantly more depressive symptomatology than non-perpetrators of IPV. More recent research also supports the association between depressive symptoms and IPV perpetration (Gondolf, 1999; Stuart, Moore, Kahler, & Ramsey, 2003). Although the mechanism behind this association is not clear, it is possible violence may serve the function of increasing self-efficacy among male perpetrators who are depressed (Maiuro et al., 1988), or that irritability associated with depression may increase the risk for IPV.

Substance use and substance use disorders have also been found to be associated with male perpetrated IPV (Moore et al., 2008; Stuart, Meehan, et al., 2006; Stuart, O'Farrell, & Temple, 2009). For instance, cocaine and marijuana use are associated with increased odds of aggression perpetration (Moore et al., 2008), as is alcohol use (Keller, El-Sheikh, Keiley, & Laio, 2009). Furthermore, Stuart, Moore and colleagues (2003) found 31% of men arrested for domestic violence met criteria for a drug use disorder and 53% met criteria for an alcohol use disorder.

Although there is mounting evidence that mental health problems are associated with male perpetrated IPV, particularly substance use, PTSD, and depression, additional research is needed. Specifically, research is needed in which a greater expanse of mental health constructs is explored. For instance, in addition to examining PTSD, depression, and substance use, Stuart, Moore, Gordon, Ramsey, and Kahler (2006) examined the prevalence of generalized anxiety disorder (GAD) and panic disorder among women arrested for domestic violence. Findings demonstrated a large percentage of women met cutoff scores for probable diagnoses, higher than rates of GAD and panic disorder reported in the general population. Shorey and colleagues (2012) also found high prevalence rates of GAD and panic disorder among women arrested for domestic violence, as well as high rates of social phobia. However, research has yet to examine whether GAD, panic disorder, and social phobia are associated with male perpetrated IPV and whether individuals meeting diagnostic classification for these disorders report greater rates of IPV perpetration than men not

meeting diagnostic classification. Such information could be vital in the creation and implementation of more effective treatments for perpetrators of IPV, as mental health treatment of perpetrators has been increasingly advocated (Gondolf, 2009).

Therefore, the purpose of the present study was to examine the prevalence of probable Axis I mental health problems among men arrested for domestic violence. Specifically, we examined depression, PTSD, substance use disorders, GAD, panic disorder, and social phobia using a diagnostic self-report screening instrument for psychopathology. In addition, we examined the associations between mental health problems and the perpetration of psychological, physical, and sexual aggression. Finally, we examined whether perpetrators meeting cutoff scores for probable diagnostic classification perpetrated more aggression than men not meeting diagnostic classification. Because previous research has shown social desirability impacts reports of aggression perpetration (Heckert & Gondolf, 2000; Sugarman & Hotaling, 1997), we controlled for the effects of social desirability when examining differences between individuals meeting probable diagnostic classification and individuals not meeting diagnostic classification.

Method

Participants

Participants were 308 men arrested for domestic violence and court-referred to Rhode Island batterer intervention programs (BIPs). These men are a subsample of men who participated in a larger study aimed at the examination of men court-referred to BIPs (i.e., Stuart et al., 2006, 2008) and these men did not differ on any of the variables of interest when compared with the larger sample. The 308 men in the current study were included based on their completion of the measures of interest for this study. Participants in the current study did not significantly differ from participants in the larger study on any demographic variable or study variables. Participants reported a mean age of 33.1 years ($SD = 10.1$), education of 12.1 years ($SD = 2.1$), and annual income of \$34,465 ($SD = \$23,470$). The ethnic composition was as follows: 71.8% non-Hispanic Caucasian, 12.6% African American, 8.1% Hispanic, 2.3% American Indian/Alaskan Native, 1.3% Asian/Pacific Islander, and 3.9% other. At the time of the study, 28.2% of the men reported being married, 29.8% reported cohabiting and not currently married, 19.7% were dating, 12.0% were single, 6.1% were separated, and 3.9% were divorced. The average length of the men's current relationships was 6.2 years ($SD = 6.4$) and length of time living with a current intimate partner was 6.0 years ($SD = 6.6$).

Measures

IPV—The Revised Conflict Tactics Scales (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) was employed to assess aggression that occurred against an intimate partner. The physical assault, psychological aggression, and sexual coercion perpetration subscales were examined for the current study. Participants rated on a 6-point scale (1 = once; 6 = more than 20 times) the number of times a particular form of aggression was used against an intimate partner in the previous year. Scores are obtained by summing the frequency of each of the behaviors for each subscale, and the score range is 0 to 25 for each item (Straus, Hamby, & Warren, 2003). Higher scores on the CTS2 indicate more frequent aggression. The internal consistency of the CTS2 is well documented, ranging from .79 to .95 (Straus et al., 1996). For the current study, internal consistency was .84 for psychological aggression, .87 for physical assault, and .73 for sexual coercion. Because all three perpetration subscales were positively skewed, log transformations were performed prior to analyses to reduce skew.

Mental Health—The Psychiatric Diagnostic Screening Questionnaire (PDSQ; Zimmerman, 2002; Zimmerman & Mattia, 2001) was used to examine mental health problems. We administered the Depression, PTSD, Generalized Anxiety Disorder (GAD), Panic Disorder, Social Phobia, Alcohol, and Drug subscales. The PDSQ is intended to be used as a screening instrument for potential mental health diagnoses, with cutoff scores of 9, 5, 7, 4, 4, 1, and 1 for Depression, PTSD, GAD, Panic Disorder, Social Phobia, Alcohol, and Drug diagnoses, respectively (Zimmerman & Mattia, 2001). The sensitivity and specificity, respectively, of the PDSQ subscales administered are: Depression .90, .67; PTSD .92, .62; GAD .90, .50; Panic Disorder .91, .69; Social Phobia .91, .63; Alcohol .85, .80; and Drug .85, .87 (Zimmerman & Mattia, 2001). The Alcohol and Drug subscales do not distinguish “abuse” diagnoses from “dependence” diagnoses. The PDSQ’s internal consistency, test-retest reliability, and convergent and discriminant validity has been established across multiple samples (Zimmerman, 2002). For the current study, internal consistency was .89 for Depression, .91 for PTSD, .91 for GAD, .88 for Panic Disorder, .87 for Social Phobia, .90 for Alcohol, and .90 for Drug.

Social Desirability—The Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1991) was used to examine participant’s tendency to respond in a socially desirable manner. Specifically, the 20-item Impression Management subscale of the BIDR was employed. This subscale assesses one’s tendency to intentionally distort their self-image in order to be perceived favorably by other people (Li & Bagger, 2007). Items are scored on a 7-point scale (1 = not true; 7 = very true), with higher scores indicating more socially desirable responding. The BIDR is one of the most commonly used measures of social desirability and the internal consistency and test-retest reliability of the BIDR has been established (Li & Bagger, 2007). For the current study, internal consistency for this scale was .63. Although this alpha level is low, it is largely consistent with internal consistency estimates found in previous research with the BIDR (Li & Bagger, 2007).

Procedure

Men were approached for study participation during their regularly scheduled BIP sessions, and all men who were 18 years of age or older and able to read and speak English were eligible for participation. Every person convicted of or placed on probation for a crime related to domestic violence in the state of Rhode Island is mandated to attend a BIP, unless alternatively sentenced by a court of law. All men completed the questionnaires during their regularly scheduled batterer intervention sessions and their participation was voluntary. There was no compensation provided for completing the questionnaires. None of the information gathered was shared with the intervention facilitators or anyone within the criminal justice system. Upon providing informed consent, the men were provided with a questionnaire packet. All men completed the measures of interest in small groups. Measures were administered in the same order to each participant, with the CTS2, PDSQ, and BIDR administered in that order, and a research member was present to answer any questions or assist participants in understanding questions if needed. All procedures were approved by the Institutional Review Board (IRB) prior to data collection. A more detailed description of the procedures for the current study can be obtained from Stuart, Meehan and colleagues (2006) and Stuart et al. (2008).

Results

We first examined bivariate associations between mental health, aggression perpetration, and social desirability. As displayed in Table 1, all three forms of aggression perpetration were significantly associated with each other. In addition, social desirability was significantly and negatively associated with reports of aggression perpetration, consistent

with previous research. In addition, social desirability was significantly and negatively associated with reports of all mental health variables except PTSD and panic disorder. Finally, all three forms of aggression perpetration were significantly and positively associated with each mental health variable. The only exception was sexual aggression, which was not significantly associated with panic disorder. We also ran point-biserial correlations between IPV perpetration and diagnostic cutoff scores. Results were consistent with the correlations between IPV and Axis-I symptomatology, although the magnitude of the correlations were slightly lower. The only correlation that was not consistent was that between sexual coercion and meeting the diagnostic cutoff score for GAD, which was not significant. The full point-biserial correlation matrix is available from the first author upon request.

Next, we examined the probable prevalence of mental health disorders among participants by examining the percentage of participants meeting the cutoff score for each respective diagnosis. For depression, 19.9% of participants met the cutoff score for probable diagnosis, with 26.2% meeting the cutoff score for probable PTSD, 15.2% for probable panic disorder, 27.6% for probable social phobia, and 19.5% for probable GAD. For substance use disorders, 39.1% met the cutoff score for a probable alcohol use disorder diagnosis and 21.5% met the cutoff score for a probable drug use disorder diagnosis.

Lastly, males meeting a cutoff score for a probable diagnosis were compared with males not meeting a cutoff score for a diagnosis on the perpetration of psychological, physical, and sexual aggression. We first examined demographic differences between groups to determine whether demographic variables should be controlled for in these analyses. Results showed minimal demographic differences. Specifically, men meeting a cutoff score for a drug disorder and social phobia were younger than their counterparts who did not meet a diagnostic cutoff score. Men meeting the cutoff score for GAD and PTSD had shorter relationship lengths than their counterparts who did not meet a diagnostic cutoff score. Finally, men meeting a PTSD cutoff score had more education and were less likely to be married or dating than their counterparts who did not meet a diagnostic cutoff score. Thus, we controlled for age, education, relationship length, and relationship status in all analyses. Moreover, because social desirability was negatively associated with each form of aggression perpetration and mental health, we also controlled for the effects of social desirability. Analyses were run using Analyses of Covariance (ANCOVAs), where social desirability and the demographic variables were entered as covariates.

Effect size (d) differences between diagnostic groups were also calculated by comparing the mean violence scores of both groups, divided by their pooled standard deviations (Cohen, 1988). As outlined by Cohen (1988), a small effect size is equal to a d of .20, a medium effect size is equal to a d of .50, and a large effect size is equal to a d of .80. Table 2 presents means, standard deviations, and effect size differences of the diagnostic groups on aggression perpetration. First, males meeting a cutoff score for depression perpetrated significantly more psychological, $F(6, 231) = 3.77, p = .05$, and sexual aggression, $F(6, 231) = 8.43, p < .01$, than males not meeting a depression cutoff score. However, the groups did not differ in their perpetration of physical aggression, $F(6, 231) = 2.14, p > .05$.

Males meeting a cutoff score for PTSD diagnosis perpetrated significantly more psychological, $F(6, 231) = 5.56, p < .05$, physical, $F(6, 231) = 10.72, p < .01$, and sexual aggression, $F(6, 231) = 3.85, p = .05$, than males not meeting the cutoff score for PTSD. In addition, males meeting a cutoff score for a panic disorder diagnosis perpetrated significantly more physical aggression, $F(6, 231) = 4.39, p < .05$, than males not meeting a panic disorder diagnosis cutoff score. However, the two groups did not differ in their

perpetration of psychological, $F(6, 231) = 3.62, p > .05$, or sexual aggression, $F(6, 231) = .27, p > .05$.

Next, males meeting a cutoff score for a social phobia diagnosis perpetrated significantly more sexual aggression, $F(6, 231) = 9.48, p < .001$, but not more psychological aggression, $F(6, 231) = 2.87, p > .05$, or physical aggression, $F(6, 231) = 1.55, p > .05$, than males not meeting a social phobia diagnosis cutoff score. Males meeting a cutoff score for a GAD diagnosis did not perpetrate significantly more psychological aggression, $F(6, 231) = 3.71, p > .05$, physical aggression, $F(6, 231) = 2.93, p > .05$, or sexual aggression, $F(6, 231) = 2.06, p > .05$, than males not meeting a GAD diagnosis cutoff score.

Males meeting a cutoff score for an alcohol disorder diagnosis perpetrated significantly more psychological, $F(6, 231) = 6.39, p < .05$, and physical aggression, $F(6, 231) = 8.15, p < .01$, but not more sexual aggression, $F(6, 231) = 2.67, p > .05$, than males not meeting an alcohol disorder diagnosis cutoff score. Finally, males meeting a cutoff score for a drug disorder diagnosis perpetrated significantly more psychological aggression, $F(6, 231) = 5.72, p < .05$, physical, $F(6, 231) = 19.59, p < .001$, and sexual aggression, $F(6, 231) = 7.24, p < .01$, than males not meeting a drug disorder diagnosis cutoff score.

Discussion

Researchers have examined mental health correlates in their past efforts to identify risk factors for male perpetrated IPV. However, this past research generally had a narrow focus on mental health problems, namely depression and PTSD. Thus, the present study extended previous research by examining the association between depression, PTSD, GAD, panic disorder, social phobia, and substance use disorders and the perpetration of IPV among men arrested for domestic violence. With the exception of sexual aggression and panic disorder, correlations showed all mental health problems were positively associated with IPV perpetration; as the frequency of mental health problems increased, the frequency of IPV perpetration also increased. This is the first known study to show an association between GAD, panic disorder, and social phobia and IPV perpetration among males.

Findings from the current study also showed the estimated prevalence of mental health problems among this sample of male batterers was extremely high. In contrast, the approximate percentage of individuals meeting diagnostic criteria in the past year for depression, PTSD, GAD, panic disorder, and social phobia, and lifetime prevalence for alcohol and drug disorders in the general population are: 6.7% for depression, 3.5% for PTSD, 3.1% for GAD, 2.7% for panic disorder, 6.8% for social phobia, 12% for alcohol, and 8% for drug disorders (American Psychiatric Association, 2000; Compton, Thomas, Stinson, & Grant, 2007; Kessler, Berglund, Demler, Jin, & Walters, 2005). The men in this sample far exceeded these general population estimates for each mental health problem that was examined in this study. This suggests men enrolled in BIPs may benefit from mental health screening because of the high prevalence of problems and their association with IPV perpetration.

It should be noted that alcohol use disorders were the most prevalent mental health problem among this sample of men. Indeed, research is increasingly recognizing the strong association between alcohol use and IPV perpetration (Stuart, Meehan, et al., 2006; Stuart et al., 2009) and is increasingly showing reductions in alcohol use is concurrently associated with reductions in IPV (O'Farrell, Fals-Stewart, Murphy, & Murphy, 2003; O'Farrell, Murphy, Stephan, Fals-Stewart, & Murphy, 2004; Stuart et al., 2009; Stuart et al., 2003). Consequently, researchers have advocated for the integration of alcohol use treatment into violence intervention programs (Stuart, Temple, & Moore, 2007). In addition to a continued

focus on the intersection of alcohol use and IPV, and given the prevalence of other mental health problems in this population, the investigation of whether treating other mental health problems (e.g., depression, social phobia) leads to concurrent reductions in IPV may also be warranted.

Furthermore, future research would benefit from the investigation of the mechanisms responsible for the association between specific mental health problems and IPV perpetration. For example, it has been hypothesized hyperarousal symptoms may be responsible for increased rates of aggression among individuals with PTSD (Taft et al., 2007), and the disinhibiting effects of substances that often cause impulsive behavior may be responsible for the association between substance use and IPV (Leonard & Quigley, 1999). However, less is known about the possible mechanisms for the association between depression, GAD, panic disorder, and social phobia and IPV perpetration. One potential explanation may be that difficulties with emotion regulation are responsible for the association between mental health problems and IPV perpetration. For instance, research and theory indicates that individuals with depression and anxiety disorders often have emotion regulation difficulties (Campbell-Sills & Barlow, 2007; Tull, Barrett, McMillan, & Roemer, 2007; Tull, Stipelman, Salters-Pedneault, & Gratz, 2009) and increased emotion regulation difficulties are related to IPV perpetration (Gratz, Paulson, Jakupcak, & Tull, 2009; Shorey, Brasfield, Febres, & Stuart, 2011; Tager, Good, & Brammer, 2011). Therefore, it is possible emotion regulation may mediate the association between mental health problems and IPV perpetration. Research is needed, however, to examine whether emotion regulation and/or other mechanisms are responsible for the link between mental health problems and IPV. In addition, this proposed mechanism assumes that mental health problems causes aggression, and it is conceivable that IPV causes mental health problems. Therefore, longitudinal research is needed to discern the relationships among mental health and IPV perpetration.

Findings from the current study also underscore the importance of continuing to examine how social desirability affects reports of IPV. Findings replicated previous research that has shown social desirability to be associated with decreased reporting of IPV perpetration (e.g., Sugarman & Hotaling, 1997). Although the rates of IPV perpetration and mental health problems were extremely high in this sample, the negative relationship between social desirability and reports of IPV and mental health indicates that rates of these problems may actually be higher than estimated in the current study due to underreporting.

In interpreting the above findings, several limitations of the current study should be considered. First, mental health problems were assessed using a screening self-report measure, which is a less rigorous instrument for classifying individuals with a potential disorder than a clinician's rating. Future research using structured diagnostic interviews (e.g., Structured Clinical Interview for DSM-IV Disorders [SCID]; First, Spitzer, Gibbon, & Williams, 1995) to diagnose mental health disorders is needed. Use of the PDSQ screening measure may have inflated estimates of the prevalence of the Axis I disorders. Furthermore, the PDSQ does not allow differential examination of alcohol/drug abuse and dependence, nor does it identify which specific substances are responsible for an individual's drug diagnosis. Given the prevalence of these problems among IPV perpetrators, examination of abuse and dependence separately may be beneficial. In addition, the cross-sectional design of this study precludes the determination of causality among study variables. That is, until longitudinal investigations are conducted, one cannot be sure whether mental health problems predict the perpetration of aggression, aggression predicts mental health problems, or if there is a reciprocal relationship among variables. Interpreting the findings of the current study is difficult due to the diagnostic comorbidity seen among disorders, as shown by the correlations among mental health symptoms. Thus, it is difficult

to determine whether relationships may exist among IPV perpetration and specific symptomatology for each disorder, or whether there are specific problems seen across all of the disorders (e.g., emotion regulation) that may be responsible for these associations. The use of structured diagnostic interviews to assess mental health problems may provide researchers and clinicians with more accurate indicators of mental health problems and allow for a more precise examination of potential comorbidity issues.

Further, the men used in the current study were primarily non-Hispanic Caucasian in decent, limiting the generalizability of findings to more diverse populations. Likewise, the generalizability of the findings are also limited by the particular sample of arrested men examined in the present study, as these men perpetrated aggression with high frequency, making it difficult to generalize findings to men who perpetrate less frequent aggression. A number of analyses were conducted, which increased the probability of a Type I error, and thus findings should be interpreted with caution. Because this study was exploratory in nature we did not adjust the alpha level, although future research should consider this possibility. Finally, replication of these findings is needed in order to verify the findings for GAD, panic disorder, and social phobia specifically.

Bearing these limitations in mind, the present study contributes to the growing body of literature on the association between mental health problems and the perpetration of IPV among men. Findings showed that mental health problems were associated with increased frequency of psychological, physical, and sexual aggression perpetration. In addition, after controlling for the effects of social desirability, men meeting cutoff scores for a probable mental health diagnosis perpetrated significantly more aggression than their non-diagnosed counterparts. These findings indicate that continued investigation of the association between mental health problems and perpetrating IPV is warranted. In addition, violence intervention programs may benefit from screening for and treating mental health problems.

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Table 1

Bivariate Correlations, Means, and Standard Deviations among Study Variables.

| | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. |
|-----------------------------|-------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| 1. Psychological Aggression | ---- | .56 ^{***} | .30 ^{***} | .25 ^{***} | .20 ^{***} | .23 ^{***} | .15 ^{**} | .21 ^{***} | .18 ^{**} | .23 ^{***} | -.30 ^{***} |
| 2. Physical Aggression | | ---- | .45 ^{***} | .20 ^{***} | .26 ^{***} | .23 ^{***} | .19 ^{**} | .23 ^{***} | .16 ^{**} | .39 ^{***} | -.24 ^{***} |
| 3. Sexual Aggression | | | ---- | .24 ^{***} | .14 [*] | .15 ^{**} | .10 | .24 ^{***} | .14 [*] | .22 ^{***} | -.17 ^{**} |
| 4. Depression | | | | ---- | .48 ^{***} | .58 ^{***} | .40 ^{***} | .49 ^{***} | .20 ^{***} | .15 ^{**} | -.19 ^{**} |
| 5. PTSD | | | | | ---- | .44 ^{***} | .42 ^{***} | .38 ^{***} | .16 ^{**} | .17 ^{**} | -.09 |
| 6. GAD | | | | | | ---- | .52 ^{***} | .55 ^{***} | .24 ^{***} | .29 ^{***} | -.16 ^{**} |
| 7. Panic Disorder | | | | | | | ---- | .37 ^{***} | .24 ^{***} | .17 ^{**} | -.01 |
| 8. Social Phobia | | | | | | | | ---- | .22 ^{***} | .16 ^{**} | -.13 [*] |
| 9. Alcohol Disorder | | | | | | | | | ---- | .19 ^{**} | -.15 ^{**} |
| 10. Drug Disorder | | | | | | | | | | ---- | -.22 ^{***} |
| 11. Social Desirability | | | | | | | | | | | ---- |
| <i>M</i> | 30.11 | 8.23 | 4.71 | 4.43 | 3.26 | 2.64 | 1.25 | 2.54 | 1.33 | .68 | 78.91 |
| <i>SD</i> | 30.60 | 16.77 | 11.86 | 4.71 | 4.03 | 3.24 | 2.14 | 3.35 | 2.05 | 1.56 | 14.85 |

Note: PTSD = Posttraumatic stress disorder; GAD = Generalized anxiety disorder

* $p < .05$,** $p < .01$,*** $p < .001$

Table 2

Means and Standard Deviations of Frequency of Aggression for Probable Diagnosis and non-Diagnosis Groups.

| | Diagnosis Group | Non-Diagnosis Group | <i>d</i> |
|--------------------------|------------------------|---------------------|----------|
| Depression | <i>n</i> = 60 (19.9%) | <i>n</i> = 248 | |
| Psychological Aggression | 39.68 (33.10) * | 27.71 (29.63) | .38 |
| Physical Aggression | 15.32 (25.09) | 6.57 (13.67) | .43 |
| Sexual Aggression | 9.05 (16.28) ** | 3.68 (10.31) | .39 |
| PTSD | <i>n</i> = 79 (26.2%) | <i>n</i> = 229 | |
| Psychological Aggression | 39.24 (33.78) * | 26.93 (28.90) | .39 |
| Physical Aggression | 15.79 (23.14) ** | 5.64 (13.02) | .54 |
| Sexual Aggression | 6.43 (11.55) * | 4.14 (11.95) | .19 |
| GAD | <i>n</i> = 58 (19.5%) | <i>n</i> = 249 | |
| Psychological Aggression | 44.91 (34.44) | 26.72 (28.73) | .57 |
| Physical Aggression | 15.00 (23.80) | 6.74 (14.39) | .42 |
| Sexual Aggression | 7.96 (16.70) | 3.99 (10.36) | .28 |
| Panic Disorder | <i>n</i> = 46 (15.2%) | <i>n</i> = 262 | |
| Psychological Aggression | 38.58 (32.60) | 28.59 (30.11) | .31 |
| Physical Aggression | 16.41 (26.30) * | 6.81 (14.08) | .45 |
| Sexual Aggression | 6.08 (16.04) | 4.49 (11.00) | .11 |
| Social Phobia | <i>n</i> = 82 (27.6%) | <i>n</i> = 226 | |
| Psychological Aggression | 37.18 (35.93) | 27.51 (28.13) | .29 |
| Physical Aggression | 11.79 (20.86) | 6.98 (14.92) | .26 |
| Sexual Aggression | 8.73 (15.63) ** | 3.27 (9.82) | .41 |
| Alcohol Disorder | <i>n</i> = 122 (39.1%) | <i>n</i> = 186 | |
| Psychological Aggression | 35.19 (33.35) * | 26.73 (28.33) | .27 |
| Physical Aggression | 10.71 (18.45) ** | 6.65 (15.46) | .23 |
| Sexual Aggression | 6.61 (15.18) | 3.49 (8.90) | .25 |
| Drug Disorder | <i>n</i> = 66 (21.5%) | <i>n</i> = 242 | |
| Psychological Aggression | 42.87 (32.61) * | 26.59 (29.20) | .52 |
| Physical Aggression | 17.81 (24.49) *** | 5.63 (12.85) | .62 |
| Sexual Aggression | 7.69 (13.10) ** | 3.92 (11.41) | .30 |

Note: *d* = Effect size differences between diagnostic groups; PTSD = Posttraumatic stress disorder; GAD = Generalized anxiety disorder.

* $p < .05$,

** $p < .01$,

*** $p < .001$