Change in Self-Esteem and Physical Aggression During Treatment for Partner Violent Men

Christopher M. Murphy, Steven Stosny, and Tanya M. Morrel

The role of low self-esteem in aggressive behavior has been questioned by theorists who claim that inflated, rather than deflated, self-esteem is associated with violence, and that societal efforts to increase self-esteem may actually increase, rather than decrease, violent behavior. This conjecture was tested in two treatment samples of partner violent men, one (n = 61) that received a behavioral intervention, and one (n = 107) that received a workshop program designed to enhance compassion for self and others. Both samples reported significant reductions in relationship violence perpetration and significant increases in self-esteem from pre- to post-treatment. In both samples, change in self-esteem was inversely correlated with change in physical aggression. Follow-up data from victims were available for one of the samples, and revealed that self-esteem and its enhancement during treatment did not significantly predict relationship violence during the year after treatment. These results indicate that self-esteem enhancement during treatment for partner violent men is correlated with violence reduction, and does not increase the risk for subsequent relationship aggression.

KEY WORDS: self-esteem; partner violence; treatment; abuse.

Self-esteem is among the most influential concepts to have emerged from applied psychology. Its heuristic value in lay conceptions of psychological life is paralleled only by such well-worn ideas as IQ and the subconscious. Low self-esteem is correlated with a variety of psychological difficulties, including depression (e.g., Lewinsohn, Gotlib, & Secley, 1997; Roberts, Gotlib, & Kassel, 1996), substance abuse (e.g., Vega, Zimmerman, Warheit, Apospori, & Gil, 1993), and eating disorders (e.g., Katzman & Wolchik, 1984; Shisslak, Pazda, & Crago, 1990). It comes as no surprise that raising self-esteem is a widely recommended strategy to prevent or ameliorate personal and social problems (e.g., Mecca, Smelser, & Vasconcellos, 1989). Although many definitions of self-esteem can be found in the literature, for the current purposes it is defined as a global barometer of self-evaluation involving cognitive appraisals about general self-worth and affective experiences of the self that are linked to these global appraisals.

As with many good ideas, the concept of self-esteem is not without its excesses. Witness, for example, the trend in recent decades toward self-esteem enhancement as a panacea for social ills and a major socialization goal of the U.S. educational system (California Task Force, 1990). This trend has been bemoaned by scholars who are carving out a more delimited and refined view of self-esteem's role in emotional functioning and behavioral dysfunction (e.g., Baumeister, Heatherton, & Tice, 1993; Kernis, Grannemann, & Barclay, 1989; Kernis, Cornell, Sun, Berry, & Harlow, 1993). One notable example involves the role of self-esteem in aggressive behavior. Baumeister, Smart, and Boden (1996) presented a cogent and provocative argument that low self-esteem is not, as widely believed, a causative factor in human aggression. Rather, unstable high self-esteem was argued to promote aggression in defense of threatened egotism. In fact, these authors went so far as to assert that societal efforts to enhance self-esteem may actually increase the propensity for aggression by inflating self-views that will later be defended aggressively against real or imagined attack.
Table I. Effect Size Estimates (d) for Self-Esteem Deficits from Case-Control Studies of Domestic Abusers

<table>
<thead>
<tr>
<th>Study</th>
<th>N of abusers</th>
<th>HNV d (N)</th>
<th>DNV d (N)</th>
<th>Combined d (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goldstein and Rosenbaum (1985)</td>
<td>20</td>
<td>2.01* (18)</td>
<td>.55* (20)</td>
<td></td>
</tr>
<tr>
<td>Murphy et al. (1994)</td>
<td>24</td>
<td>2.04* (24)</td>
<td>.83* (24)</td>
<td></td>
</tr>
<tr>
<td>Neidig, Friedman, and Collins (1986)</td>
<td>41</td>
<td></td>
<td></td>
<td>1.49* (34)</td>
</tr>
<tr>
<td>Russell, Lipov, Phillips, and White (1989)</td>
<td>32</td>
<td>.12 ns (10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teich and Lindquist (1984)</td>
<td>19</td>
<td></td>
<td></td>
<td>ns (7) (-)³* (24)</td>
</tr>
</tbody>
</table>

Note. HNV: happily married, nonviolent controls; DNV: maritally discordant, nonviolent controls; Combined = control group not separated on the basis of relationship adjustment; ns indicates no significant difference between abuse and control groups.

The variable d is calculated as the average difference between groups in self-esteem divided by the standard deviation of the control group (Cohen, 1988).

Insufficient information provided to compute effect size; (–) indicates that the abuse group was significantly lower than the control.

*Effect reported as statistically significant at p < .05.

This conjecture that enhancing self-esteem may increase the potential for aggression, provided the impetus for the current investigation of self-esteem among perpetrators of intimate partner violence.

In contrast to Baumeister and colleagues’ (1996) theory about high self-esteem and aggression, there is considerable reason from both conceptual and empirical sources to argue that low self-esteem is associated with domestic violence (Boney-McCoy & Sugarman, 1999). A number of clinicians have indicated that a fragile or threatened self-concept helps to stimulate relationship abuse (Sonkin, Martin, & Walker, 1985; Stosny, 1995). Partner violent men are thought to compensate for low self-esteem, defending a threatened sense of self by asserting superiority and dominance over the spouse in the form of controlling and abusive behavior. The unpleasant emotions generated by external confirmation of negative self-schemas set the stage for angry and abusive attacks. From an attachment perspective, low self-esteem is linked to anxious insecurity that fuels jealous rage reactions (Dutton, Saunders, Starzomski, & Bartholomew, 1994). Thus, abusers are caught in a vicious trap—using denigration and harm of a loved one in a failed attempt to address self-esteem concerns, which exacerbates attachment dysfunction, and contributes to further diminishment of self-esteem (Stosny, 1995).

Social and personality psychologists have derived quite similar theories to explain the more general role of low self-esteem in emotional and behavioral problems. The sociomotor model (Leary, Tambor, Terdal, & Downs, 1995) maintains that subjectively experienced self-esteem serves as “a psychological gauge or indicator that allows people to efficiently monitor others’ reactions to them” (Leary, Schreindorfer, & Haupt, 1995, p. 298). Low self-esteem is conceptualized as an experiential indicator of real or imagined social rejection. The sociomotor model implies that low self-esteem is correlated with partner abuse as a function of their mutual association with perceived or feared rejection of the self by one’s partner.

In line with this model, empirical investigations have consistently linked the fear of abandonment and related insecurities to partner violence perpetration in clinical samples. Abusive men are highly reactive to hypothetical situations involving themes of abandonment, rejection, and jealousy (Dutton, 1988; Holtzworth-Munroe & Anglin, 1991; Holtzworth-Munroe & Hutchinson, 1993). They also respond more intensely than nonviolent controls to self-report items reflecting interpersonal dependency and feared loss of the partner (Holtzworth-Munroe, Stuart, & Hutchinson, 1997; Murphy, Meyer, & O’Leary, 1994).

Case-control studies have also uncovered an association between low self-esteem and partner abuse (Hotaling & Sugarman, 1986). Table I presents effect sizes from published investigations of self-esteem deficiencies in partner violent men. In all of these investigations, the self-esteem of partner abusive individuals was lower than that of controls, with six of eight comparisons reaching significance. Effect size estimates range from .12 to 2.04 standard deviation units separating abusers from controls, with 2/3 in the large magnitude range (d > .8; Cohen, 1988). The effect sizes are generally larger when domestic abusers are compared to happily married controls than when they are compared to maritally distressed controls. In two of

Articles were uncovered through an electronic literature search crossing the term self-esteem with a range of terms indicating partner abuse.
three studies, however, significant differences were also found with respect to control groups containing marital distressed individuals, helping to rule out the explanation that low self-esteem is linked to relationship distress in general rather than to domestic violence specifically. These conclusions are consistent with an earlier review that identified low self-esteem as a clinical correlate of domestic abuse perpetration in the majority of published and unpublished studies (Hoteling & Sugarman, 1986), and with a recent meta-analysis of the link between low self-esteem and domestic violence perpetration (Boney-McCoy & Sugarman, 1999).

In contrast to case-control studies of clinical samples, correlational studies of nonclinical samples have yielded more modest estimates of the association between self-esteem and partner violence, and less consistent evidence of statistical significance. In the first National Family Violence Survey, for example, a factor combining men's reports of self- and partner-esteem had virtually no association with partner violence (Sugarman & Hoteling, 1989).

The esteem measures, however, were brief (three items) and not validated. Investigators have more commonly reported relatively small negative correlations between self-esteem and physical relationship aggression in nonclinical samples of marital or dating relationships (r's less than .3). Some investigators have found this association to be statistically significant (e.g., Deal & Wampler, 1986), while others have not (e.g., Rouse, 1984), and still others have found it to be a significant correlate of women's perpetration and experience of aggression, but not of men's (e.g., Murphy, Hartman, Muccino, & Douchis, 1995).

More complex models of the association between self-esteem and domestic violence have also been proposed and studied. For example, Sith and Farley (1993) reported on a combined sample of alcoholics and partner violence clinic referrals. They found that low self-esteem had significant paths to marital stress and alcohol problems, which were indirectly associated with severe marital violence through the mediating variable of approval of marital violence. Sex-role egalitarianism also played an important role in their model, but its effects were independent of self-esteem. A similar finding was reported for a sample of college males, in which self-esteem was indirectly related to dating violence through the mediating influence of attitudes accepting of violence (Burke, Stets, & Pirog-Good, 1988). Thus, low self-esteem may set the stage for relationship stress, alcohol problems, and favorable attitudes toward violence, which are in turn directly linked to partner assault. It is important to note, however, that neither of these investigations reported tests of alternative models in which self-esteem had a more direct influence on aggression.

Prince and Arias (1994) examined the interactions between self-esteem, the desire for control over events in one's life, and the degree of perceived personal control over important life pursuits. They used these variables to predict abuse status in a sample derived from local clinics and newspaper advertisements. Interestingly, two different patterns were associated with domestic violence in their analysis. The first pattern, which characterized a substantial number of abusive men, involved the combination of low self-esteem, low desirability of control, and low perceived personal control. The second pattern, which characterized a somewhat smaller number of abusive men, involved high self-esteem, high desirability of control, and low perceived personal control. These findings indicate that self-esteem may influence partner violence through complex interactions with the perception of, and desire for, control. The predominant pattern in their study, however, involved low self-esteem, working in concert with a lack of perceived control over important events in one's life. This pattern is consistent with prior data linking self-esteem to partner abuse.

Thus, the dominant trend in available empirical research is for low, rather than high, self-esteem to be correlated with intimate partner abuse. Nevertheless, it seemed important to test the provocative hypothesis that enhancing self-esteem might increase the propensity for relationship aggression for two reasons. First, some intervention programs for partner abusive individuals target improved self-esteem or closely related constructs as a treatment goal. Yet, Baumeister and colleagues' (1996) model implies that enhancing self-esteem may increase the risk for aggression in defense of threatened egotism. If correct, this speculation would carry important treatment implications regarding the dangers of self-esteem building interventions. Second, all of the research to date has been cross-sectional. The fact that self-esteem is negatively correlated with partner abuse at a given point in time carries no firm implication for whether change in one of these variables will be correlated with change in the other. Thus, even if these two variables were negatively correlated at the outset of treatment, it still remains possible that increased self-esteem would confer risk for continued aggression through defense of threatened egotism. For example, an abusive client may feel better about himself as a function of treatment, and thereby view his partner's continued put downs or perceived negative characteristics of the partner as an even greater threat to his self-esteem, contributing risk for physical aggression in defense of the improved self-concept.

We set out to test the prediction that increased self-esteem would increase risk for partner aggression using data from two treatment samples of male domestic abuse
perpetrators. One sample received a treatment that addressed self-concept issues quite directly (Stosny, 1995). The other sample received a treatment focused on overt behavioral skills with relatively little direct attention to self-esteem (Murphy & Scott, 1996). We hypothesized that both treatments would be associated with increases in self-esteem as a result of participating in a supportive, problem-focused group. The goal of using two samples was not to compare treatments, but to determine whether findings replicate across treatment contexts. The hypothesis derived from the theory that aggression occurs in defense of threatened egotism was of a positive correlation between changes in self-esteem and changes in aggression (i.e., increased self-esteem will be related to increased aggression whereas decreased self-esteem will be associated with decreased aggression). The hypothesis derived from the empirical data on self-esteem and partner abuse involved the opposite direction of effects, specifically that improved self-esteem would be associated with reductions in domestic violence in both treatment samples. Finally, a further goal was to explore whether self-esteem levels, and enhancements in self-esteem during treatment, predict partner violence after treatment, using the same logic of reverse predictions from competing theoretical points of view.

METHOD

Participants

Sample 1

The first sample consisted of 61 males who completed a cognitive-behavioral treatment program at the Domestic Violence Center of Howard County, MD, and for whom complete self-report data were available on self-esteem and physical relationship aggression at program intake and termination. The treatment program (Murphy & Scott, 1996) consisted of 16 weekly 2-hr sessions delivered by a co-therapist team. The program was designed to enhance motivation to change abusive behavior, improve anger self-regulation skills, and facilitate the development and use of relationship communication skills such as active listening. Although the treatment was offered with support and encouragement from therapists, self-esteem was not directly targeted by this intervention.

Sample 1 cases ranged in age from 19 to 52, with the average age of 33.6 years (SD = 8.2). They averaged 12.9 years of formal education (SD = 1.9). They reported an average annual gross income of $29,800 (SD = $14,750). Sixty-nine percent of the sample were court-referred to treatment, and 31% were self-referred. The sample was 66% Caucasian and 34% African American. At program intake, 27% of participants reported their marital status as single, 8% as cohabiting, 40% as married, and 25% as separated or divorced.6

Sample 2

The second sample consisted of 107 males who completed the Compassion Workshop at one of several domestic violence treatment programs in the greater Washington DC area, and for whom complete self-report data were available on self-esteem and physical relationship aggression at program intake and termination. This treatment program is based on an attachment theory formulation of abuse in family relationship (Stosny, 1995). It consists of 12 weekly 2-hr sessions, and is designed to end abusive behavior by enhancing compassion for self and loved ones. Self-esteem is targeted quite directly by this intervention, which addresses self-acceptance and self-compassion and strives to build genuine (versus false) pride. In this intervention, clients are taught strategies for identifying underlying “core” emotional wounds that fuel intimate rage, and to address these core wounds by providing self-compassion. This process is theorized to enhance self-regulation, which in turn should improve self-esteem both directly, through self-understanding and compassion, and indirectly by limiting the self-esteem damaging effects of abusing loved ones (Stosny, 1995).

Sample 2 cases ranged in age from 23 to 70, with the average age equal to 40.1 years (SD = 9.9). They averaged 13.4 years of formal education (SD = 2.5). They reported an average annual gross income of $29,500 (SD = $17,900). Ninety-one percent of these individuals were court-referred to treatment, and 9% were self-referred or advised by an attorney to attend. With regard to racial and ethnic background, 20% of participants were

---

6Prior analyses revealed that subjects' relationship separation status at program intake and termination was not significantly associated with the degree of self-reported relationship aggression during the preceding interval (Morrel & Murphy, 1996). Approximately 20% of cases reported a different relationship status at intake and termination, either having broken up or reunited with their partners during a 16-week intervention. In addition, some clients experience brief, repeated separations, and some perpetrate recidivist aggression against former partners after breaking up. A recent large-sample study of domestic abusers in treatment similarly found that adjusting violence recidivism rates for the presence of new relationship partners (versus the original victim), and for the absence of contact with the victim, had very little influence on estimates of recidivism (Gondolf, 1997). Based on these observations, we decided to include subjects whether or not they reported being estranged from a relationship partner at the pretreatment assessment.
non-Hispanic Caucasian, 72% were African American, 2% were Hispanic, 4% were Asian, and 2% reported being of other ethnic or racial backgrounds. At program intake, 56% of participants reported that they were living together with the original victim, an additional 17% reported regular (at least weekly) contact with the victim, and the other 28% reported little or no regular contact with the victim. Given that the two samples were used to provide an independent replication of the hypothesis tests, the samples were not compared to one another on demographics or other factors.

Measures

Self-Esteem

Both samples responded to a version of the Rosenberg Self-Esteem scale at program intake and termination (Rosenberg, 1979). The 10 Rosenberg items were accompanied by a 4-point response option scale for Sample 1 (Strongly agree, Agree, Disagree, and Strongly disagree), and a 5-point response option scale for Sample 2 (anchored by the terms Strongly agree and Strongly disagree). This measure had adequate internal consistency, with coefficient alphas of .83 and .79 at program intake in Samples 1 and 2, respectively. Convergent validity correlations with other measures of self-esteem have been high, ranging from .55 to .80 in one review (Crandall, 1973).

Physical Relationship Aggression

Participants in both samples responded to a version of the Conflict Tactics Scale (Straus, 1979) at program intake and termination. Sample 2 responded to Form RC of the CTS, which contains nine physical aggression items (the item “choked partner” was added to the original Form N). Sample 1 completed an expanded version of this scale, which contained the original eight physical aggression items and three added items (“tried to control the partner physically,” “choked or strangled the partner,” and “physically forced the partner to have sex against her will”). Respondents reported how often each aggressive behavior was performed, with seven response options ranging from Never to More than 20 times. In each sample, respondents reported on the prior year at the pre-treatment assessment, and the period of assessment and treatment at the post-treatment assessment. A total score for physical aggression was computed by summing item responses on a 0–6 point scale (Straus, 1979). Evidence is available to support the content, concurrent, and construct validity of the CTS (Straus, 1979, 1990).

Procedures

Sample 1

Participants in Sample 1 completed the pre-treatment measures as part of a battery of self-report instruments administered at the end of their initial intake session. They completed the post-treatment measures as part of a battery of self-report instruments administered during session 15 of the 16 session treatment program.

Sample 2

Participants in Sample 2 completed pre-treatment measures during an orientation session 1 hr before the first session of treatment. Post-testing occurred during the last (twelfth) group treatment session. A follow-up assessment was administered to victims of Sample 2 participants by graduate students using a structured phone interview that contained the CTS (Straus, 1979). Efforts to reach victims for follow-up began approximately 12 months after the end of treatment, and continued for several months in difficult-to-reach cases.

RESULTS

Pre- to Post-treatment Changes in Self-Esteem and Physical Aggression

The means and standard deviations of self-esteem and physical aggression are presented in Table II. Both treatment programs were associated with a significant increase in self-esteem from pre- to post-treatment. For Sample 1, the mean increase in self-esteem was 1.1 points on a 30-point scale ($SD = 3.9$), paired sample $t = 2.05$, $df = 60$, $p < .05$, $d = .28$. For Sample 2, the mean increase in self-esteem was 2.1 points on a 40-point scale.

<table>
<thead>
<tr>
<th></th>
<th>Sample 1 ($N = 61$)</th>
<th>Sample 2 ($N = 107$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Self-esteem$^a$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-treatment</td>
<td>31.9 (4.9)</td>
<td>41.4 (6.4)</td>
</tr>
<tr>
<td>Post-treatment</td>
<td>33.0 (5.1)</td>
<td>43.5 (4.7)</td>
</tr>
<tr>
<td>Monthly physical aggression</td>
<td>.45 (0.47)</td>
<td>.45 (0.50)</td>
</tr>
<tr>
<td>Pre-treatment</td>
<td>.25 (0.71)</td>
<td>.15 (0.38)</td>
</tr>
<tr>
<td>Post-treatment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^a$The response format for the self-esteem items was different in the two samples, yielding a maximum total score of 40 in Sample 1 and 50 in Sample 2.
(SD = 6.0), paired sample $t = 3.72, df = 106, p < .001, d = .36$. Changes in self-esteem were in the small to medium range of effect sizes (Cohen, 1988), but must be interpreted in light of the high stability of self-esteem across time.

Change in self-reported physical relationship aggression from pre- to post-treatment was expressed using monthly rates, because in each sample the rates of aggression in the 12 months before intake were being compared to rates during a shorter period of assessment and treatment. Both treatment programs were associated with significant pre- to post-treatment reductions in self-reports of physical aggression. For Sample 1, the mean decrease in monthly physical aggression rate was .20 behaviors (SD = .75), paired sample $t = 2.04, df = 60, p < .05, d = .26$. For Sample 2, the mean decrease in monthly physical aggression rate was .30 behaviors (SD = .58), paired sample $t = 5.42, df = 106, p < .01, d = .52$. Thus, each treatment program was associated with significant increases in self-esteem and significant decreases in physical relationship aggression.

**Correlation Among Study Variables**

Table III presents the bivariate self-esteem and physical aggression correlations for each sample. Consistent with a trait model of self-esteem, high stability correlations from pre- to post-treatment were observed for both samples. The stability of self-esteem appeared to be higher for Sample 1 than for Sample 2 (.72 v. .46), which may reflect the greater degree of focus accorded to self-evaluative processes in the treatment model used with Sample 2. Differences in the samples and measures, or sampling variability, could also explain the somewhat higher stability of self-esteem observed in the cognitive-behavioral program. Self-esteem had negative correlations of generally small magnitude with physical relationship aggression at each cross-sectional assessment (range from −.10 to −.26), and these correlations were significant only at pre-treatment in Sample 1, and only at post-treatment in Sample 2.

**Correlation Between Change in Self-Esteem and Change in Physical Relationship Aggression**

Correlated change in the two variables of interest was evaluated by conducting Pearson correlations on the pre- to post-treatment change scores for self-esteem and physical aggression. As hypothesized, for both samples, pre- to post-treatment change in self-esteem (expressed in the direction of improved self-esteem), was significantly correlated with pre- to post-treatment change in physical relationship aggression (expressed in the direction of reduced aggression): for Sample 1, $r = .31, N = 61, p < .05$; for Sample 2, $r = .25, N = 107, p < .01$. The correlations between improved self-esteem and reduced aggression were in the small to medium range of magnitude (Cohen, 1988).

**Change in Self-Esteem for Individuals Who Reported Increased versus Decreased Aggression**

Because the physical aggression scores formed a positively skewed distribution, and outliers may have exerted an undue influence on correlations, change in physical aggression was also examined as a categorical phenomenon. For both samples, participants were grouped according to whether their monthly rates of physical aggression increased or decreased from pre- to post-treatment. The average change in self-esteem over the course of treatment was then compared for these groups. As displayed in Table IV, for both samples, participants who decreased in monthly rates of aggression increased in average self-esteem. Conversely, participants who increased in monthly rates of aggression decreased

**Table IV. Change from Pre- to Post-treatment in Self-Esteem for Those Who Increased and Decreased in Monthly Rates of Physical Aggression**

<table>
<thead>
<tr>
<th>Group</th>
<th>Aggression increased</th>
<th>Aggression decreased</th>
<th>$t$</th>
<th>df</th>
<th>Significant $p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample 1</td>
<td>Mean (SD)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N = 8$</td>
<td>−1.1 (3.0)</td>
<td>+1.6 (4.2)</td>
<td>1.71</td>
<td>51</td>
<td>.09 ns</td>
</tr>
<tr>
<td>Sample 2</td>
<td>Mean (SD)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N = 17$</td>
<td>−1.6 (5.2)</td>
<td>+2.6 (6.2)</td>
<td>2.46</td>
<td>91</td>
<td>&lt;.05</td>
</tr>
</tbody>
</table>

Note. Correlations in Sample 1 ($N = 61$) appear above the diagonal; Correlations in Sample 2 ($N = 107$) appear below the diagonal.

* $p < .05$. ** $p < .01$, two-tailed tests.
in average self-esteem. Although a $t$-test for self-esteem differences between groups who increased and decreased in monthly aggression was significant only for Sample 2, the magnitude of these effects was in the medium to large range, and was similar for the two samples ($d = .63$ and $.68$ in Samples 1 and 2, respectively). These findings further illustrate an inverse association between changes in self-esteem and changes in physical aggression, which is crucial to disconfirming the theoretical proposition that increased self-esteem would be linked to increased aggression.

Regression Analysis of Post-treatment Physical Aggression

Although the raw change scores examined above provide an unbiased estimate of change over time and have acceptable psychometric properties in the range of stability correlations observed in the current study (Rogosa, 1995), a regression approach was also used to examine the association between self-esteem and change in physical relationship aggression. Unfortunately, the residual gain score from regression analysis is not an unbiased estimate of change over time, and it suffers from similar or even worse problems of unreliability under the conditions that produce unreliability in the difference score (Rogosa, 1995). The regression approach, however, provides an additional window on change by testing the hypothesis that greater than (or less than) expected reductions in physical aggression can be attributed to post-treatment self-esteem when initial (pre-treatment) levels of aggression and self-esteem have been controlled statistically.

Table V presents the results of such regression equations. For each sample, physical aggression at post-treatment was the dependent variable. Physical aggression and self-esteem at pre-treatment were entered on the first step, followed by post-treatment self-esteem on the second step. The hypothesis was that post-treatment self-esteem would add significant unique variance to the equation, with an inverse direction of effect.

This hypothesis was supported for Sample 2, but not for Sample 1 (see Table V). For Sample 1, in the regression model controlling for pre-treatment variables, post-treatment self-esteem was inversely correlated with post-treatment physical aggression, but it accounted for only $2\%$ of the unique variance in aggression. For Sample 2, post-treatment self-esteem was significantly and inversely associated with post-treatment physical aggression when pre-treatment variables were controlled, accounting uniquely for $7\%$ of the variance in post-treatment aggression (see Table IV).

Predicting Physical Aggression During the Year after Treatment

For Sample 2, victim follow-up reports of physical aggression during the year after completion of treatment were available for $66\%$ of cases (71 of 107).\footnote{This degree of loss to follow-up (34\% of cases), although undesirable, is not unusual in agency-based studies of domestic abuse intervention. Some domestic abuse victims are transient and difficult to locate due to the instability of their relationships. In addition, some who have permanently severed the relationship refuse to participate in follow-up. These difficulties are illustrated by a recent multi-site investigation that provided monetary incentives for victims to complete quarterly phone...}
Table VI presents the correlations between self-esteem at pre- and post-treatment and physical aggression during the subsequent year. Neither pre-treatment self-esteem, post-treatment self-esteem, nor change in self-esteem from pre- to post-treatment was significantly predictive of subsequent victim-reported aggression. A multiple regression model, controlling for pre-treatment aggression levels, also failed to uncover any significant predictive association with aggression during the year after treatment.

**DISCUSSION**

The results run counter to the conjecture that enhanced self-esteem might increase the risk of aggressive behavior. The theory that high, inflated self-esteem is a causal factor in violence (Baumeister et al., 1996) leads to the expectation that change in self-esteem should be positively correlated with change in violence. Thus, reduced violence would be linked to greater humility and self-effacement manifested in reduced self-esteem, and enhanced self-esteem should increase the tendency toward violence in defense of egotism. As we originally hypothesized, however, two distinct treatments for domestic abusers were associated with significant pre- to post-treatment reductions in relationship violence and significant pre- to post-treatment increases in self-esteem. In both treatment samples, change in self-esteem during treatment was inversely correlated with change in self-reports of relationship violence. In addition, for the relatively small number of participants in both samples who reported increases in physical aggression during treatment, self-esteem decreased, on average, during this interval. In the sample that received a treatment program

focused substantially on self-concept issues, a multiple regression analysis controlling for pre-treatment violence and self-esteem further demonstrated a link between increased self-esteem and reduced aggression at post-treatment. The results clearly indicate that enhanced self-esteem is associated with reduced, rather than increased, perpetration of intimate partner violence.

It is also important to note, however, that self-esteem and its enhancement during treatment had no apparent predictive value with regard to future violence in the sample receiving a self-concept focused intervention. This negative finding is consistent with the notion that low self-esteem, rather than being a central determining factor, may play a somewhat circumscribed or indirect role in violent behavior (Burke et al., 1988; Stith & Farley, 1993), or may be a consequence, rather than a cause, of violence. Because self-esteem was not measured at the follow-up assessment, however, it is also possible that unmeasured changes in self-esteem during the year of follow-up were associated more closely in time with relationship aggression.

There are several plausible explanations for the link between enhanced self-esteem and reduced relationship aggression. Traditional accounts of the role of low self-esteem in violent behavior (e.g., Goldstein & Rosenbaum, 1985; Toch, 1992) suggest that enhanced self-esteem makes the individual less sensitive to perceived slights or attacks. In support of this model, Goldstein and Rosenbaum (1985) found that maritally violent men perceived a greater threat to self-esteem in hypothetical relationship conflict vignettes than did nonviolent controls. According to this model, self-esteem enhancement reduces the propensity for violent reactions in two ways: by protecting the individual from perceiving conflict as threatening to self-esteem, and by limiting the intensity of negative emotions when self-esteem attacks are perceived.

interviews. At the comparable assessment (15 months after program intake) the direct victim interview rate was 59% (Gondolf, 1997).
Two alternative explanations implicate reverse direction of effects of violence on self-esteem. First, the enhanced self-regulation apparent in violence reduction may directly enhance self-esteem. To the extent that aggressive behaviors produce negative self-evaluations, domestic abusers should feel better about themselves when they successfully regulate the impulse to aggress. This explanation is consistent with the clinical observation that shame and guilt are commonly experienced after abusing an intimate partner (Stosny, 1995). Second, self-evaluative processes may be mediated by interpersonal transactions, in line with the sociometer model of self-esteem (Leary et al., 1995). Thus, abusers who successfully limit their own aggressive behavior may experience fewer self-esteem damaging retaliations, and more self-esteem-affirming responses from the relationship partner. Over time, these partner-mediated processes may reduce the fear of rejection that is common among abusive men (Holtzworth-Munroe et al., 1997; Murphy et al., 1994).

Finally, a bidirectional model is also plausible. With improved self-esteem, the individual may be less prone to perceive, or react to, self-esteem attacks by the partner. This change, in turn, would enhance self-esteem through direct self-evaluative and/or partner-mediated processes, further limiting the propensity for aggression in response to real or imagined slights. This causal loop may begin either with enhanced self-control or with enhanced self-esteem. These different models could not be tested in the current investigation, and may require a time-series design to examine short-term fluctuations in self-esteem and partner violence.

Several limitations of the current investigation warrant discussion. Perhaps most important is the reliance on self-reports of self-esteem and aggression at pre- and post-treatment. Factors such as impression management appear to exert a small, but measurable influence on self-reports of aggressive behavior (Arias & Beach, 1987; Dutton & Hemphill, 1992). Impression management, however, does not appear to provide a convincing explanation for the observed association between change in self-esteem and change in aggression. A change in levels of impression management over time would have to be invoked to explain this association. More specifically, one would have to posit an increase in impression management across time in order to explain the findings in both samples of decreased aggression and increased self-esteem from before to after treatment. In general, however, more honest reporting would be expected at the post-treatment versus the pre-treatment assessment, because clients at pre-treatment are often defensive after having been court-ordered to treatment. An analysis involving pre- to post-treatment change in self and partner reports of aggression indicated that enhanced honesty accounts for a relative lack of change observed in the self-reports of abusive men who are initially high on a measure of impression management (Hoover, 1999). Unfortunately, however, measures of social desirability response bias were not available for the current investigation, and therefore such explanations for the findings cannot be ruled out conclusively.

The use of clinical samples obviously limits generalization to aggression and self-esteem in less severely affected or undetected populations. The replication of the main findings across two independent samples of abusers who experienced different treatment approaches in different clinical sites, however, suggests that the basic finding of an inverse association between changes in self-esteem and changes in physical aggression is robust among clinical abuse perpetrators.

In summary, the findings run counter to the idea that enhanced self-esteem might increase the likelihood of relationship violence. Pre- to post-treatment reductions in physical aggression in two treatment samples of domestic abusers were significantly correlated with increases in self-esteem. There was no indication that treatment programs for domestic abusers should avoid using intervention procedures that may enhance self-esteem, either directly or inadvertently. Self-esteem enhancement, however, did not predict violence cessation prospectively, suggesting that it may not, in and of itself, be a central determining factor in the successful treatment of domestic abuse perpetrators.

REFERENCES


Dutton, D. G. (1985). The Domestic Assault of Women, Allyn and Bacon, Newton, MA.


Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.