

Normative Misperceptions of Abuse Among Perpetrators of Intimate Partner Violence

Violence Against Women

16(4) 370–386

© The Author(s) 2010

Reprints and permission: <http://www.sagepub.com/journalsPermissions.nav>

DOI: 10.1177/1077801210363608

<http://vaw.sagepub.com>

 SAGE

Clayton Neighbors,¹ Denise D. Walker,²
Lyungai F. Mbilinyi,² Allison O'Rourke,²
Jeffrey L. Edleson,³ Joan Zegree,² and
Roger A. Roffman²

Abstract

This research was designed to evaluate the applicability of social norms approaches to interventions with male perpetrators of intimate partner violence (IPV). Participants included 124 nonadjudicated IPV perpetrating men recruited from the general population who completed assessment of their own IPV behaviors via telephone interviews and estimated the prevalence of behaviors in other men. Results indicated that IPV perpetrators consistently overestimated the percentage of men who engaged in IPV and that their estimates were associated with violence toward their partner over the past 90 days. Findings provide preliminary support for incorporating social norms approaches into clinical applications.

Keywords

domestic violence, motivational interviewing, social norms

This article evaluates normative misperceptions of domestic abuse behaviors among male perpetrators of intimate partner violence (IPV). In other domains, individuals engaging in a variety of behaviors (e.g., gambling, substance use, disordered eating) have been consistently shown to overestimate the extent to which others also engage in these behaviors. The magnitude of misperception has often been associated with severity of behavior, and

¹University of Houston, Texas

²University of Washington, Seattle

³University of Minnesota, St. Paul

Corresponding Author:

Clayton Neighbors, University of Houston, Department of Psychology, 126 Heyne Bldg, Houston, TX 77204-5022

Email: cneighbors@uh.edu

correction of normative misperception has been successfully applied in prevention and treatment. The primary aim of this research was to evaluate the applicability and potential clinical utility of this approach among male IPV perpetrators.

IPV Perpetration

The magnitude of adverse consequences of IPV on its victims has been well documented by several national surveys (Henneberg, 2000; Straus & Gelles, 1990; Tjaden & Thoennes, 2000). A variety of treatment programs (Batterer Intervention Programs [BIPs]) have been implemented in the past three decades to help adult men recognize and end their abusive behavior. Many of these BIPs have been evaluated; however, most have not used experimentally controlled designs. Varying methods from one program to another have led to mixed and often uninterpretable findings. Reviews of the few evaluation studies that have used experimentally controlled designs have found small positive effects or inconclusive results on the effectiveness of one program over another (Babcock, Green, & Robie, 2004; Bennett & Williams, 2001; Feder & Wilson, 2005; Gondolf, 2004). These mixed and modest findings of domestic violence treatment for IPV perpetrators magnify the urgency and need to incorporate novel and innovative treatment approaches, evaluated by experimentally controlled research designs.

Social Norms

In the broadest sense, social norms can be defined as implicit or explicit rules regarding the appropriateness of behavior (Sherif, 1936). As such, social norms form the basis for what is considered appropriate versus inappropriate behavior. Social norms have been more precisely defined as being of two distinct types: descriptive and injunctive norms (Cialdini, Kallgren, & Reno, 1991). Whereas injunctive norms refer to the perceived or actual approval or disapproval of a given behavior, descriptive norms, the focus of the present article, refer to the perceived or actual prevalence of a given behavior. The distinction between perceived versus actual norms is a critical distinction given that our perceptions of others' attitudes and behaviors have a greater influence on our behavior relative to others' actual attitudes and behaviors, of which we often have no direct knowledge (Lewin, 1943; Neighbors, Dillard, Lewis, Bergstrom, & Neil, 2006).

IPV perpetration injunctive social norms, manifested by laws and policies against IPV, have existed for several decades (Salazar, Baker, Price, & Carlin, 2003; Taylor & Sorenson, 2005). Despite the public's general awareness of these laws and IPV's negative impact on family members, violence continues to occur and is often not reported to law enforcement (Taylor & Sorenson, 2005). Moreover, researchers have found perceived informal sanctions (e.g., potential loss of one's partner; loss of respect from friends and loved ones) to be more effective in deterring violence than perceived criminal penalties (Smithey & Straus, 2003; Williams & Hawkins, 1992).

Perpetrators may to some extent be unaware that their behavior is "outside the norm." They tend to justify their abuse based on assumptions of others' behaviors or general

acceptance of violence toward women. Researchers have found a strong relationship between perpetration of violence and acceptance or justification of violence or hostility toward women (Holtzworth-Munroe, Meehan, Herron, & Rehamn, 2000; Taylor & Sorenson, 2004). Although recent intervention studies have begun to investigate misperceptions of men's traditional gender roles (Beatty, Syzdek, & Bakkum, 2006), research has yet to directly evaluate misperceptions of descriptive IPV norms. Several researchers have pointed to the need for interventions to directly impact men's perceptions of other men's use of violence as an intervention strategy (Fabiano, Perkins, Berkowitz, Linkenbach, & Stark, 2003; Taylor & Sorenson, 2004). However, application of social norms approaches to IPV may be premature without first empirically documenting that misperceptions exist in relation to IPV norms and that they are associated with behavior (Lewis & Neighbors, 2006).

Although social norms have been less widely investigated with respect to IPV, they have been examined more extensively in association with other behaviors, especially in college student populations. Findings have consistently shown that people tend to overestimate norms for problematic behaviors, and this is especially true among individuals who engage in those behaviors. Furthermore, estimates of problematic behaviors are positively correlated with the extent to which individuals engage in those behaviors. These findings have been documented with respect to alcohol use (Baer, Stacy, & Larimer, 1991; Borsari & Carey, 2001; Lewis & Neighbors, 2004), marijuana and other drug use (Kilmer et al., 2006), risky sexual behavior (Chia & Gunther, 2006; Lewis, Lee, Patrick, & Fossos, 2007), body image concerns and disordered eating behavior (Bergstrom, Neighbors, & Lewis, 2004; Bergstrom, Neighbors, & Malheim, 2009), and gambling (Larimer & Neighbors, 2003; Neighbors et al., 2007). Intervention and treatment approaches that have been successful in changing perceived norms have been relatively successful in changing behavior, especially drinking behavior (Borsari & Carey, 2000; Chan, Neighbors, Gilson, Larimer, & Marlatt, 2007; Cunningham, Humphreys, & Koski-Jannes, 2000; Cunningham, Wild, Bondy, & Lin, 2001; Lewis & Neighbors, 2007; Neighbors, Larimer, & Lewis, 2004; Neighbors, Lewis, Bergstrom, & Larimer, 2006).

Normative data have also been an essential component of motivational enhancement therapy (MET) for the early intervention and treatment of risky behaviors such as alcohol and drug abuse (Miller & Rollnick, 2002). MET is an adaptation of motivational interviewing (Miller & Rollnick, 2002) developed as a client-centered method of communication for helping to resolve ambivalence and motivate change. MET consists of assessment of the risky behavior followed by a personalized session using motivational interviewing to offer feedback on the results of that assessment. Because perpetrators of domestic violence often struggle with motivation to change their behavior, engage in treatment, and complete treatment, motivational interviewing and MET have been identified as promising approaches for the application of IPV perpetration intervention (Roffman, Edleson, Neighbors, Mbilinyi, & Walker, 2008).

The primary objective of the present research was to evaluate the potential applicability of social norms approaches to IPV by evaluating whether normative misperceptions exist in relation to IPV norms and whether perceived IPV norms are associated with behavior. Specific aims of this article include (a) providing base rate norms for the prevalence of

violent behaviors perpetrated by men based on estimates derived from the National Violence Against Women Survey (NVAWS); (b) evaluating whether male IPV perpetrators overestimate the prevalence of violent behaviors; (c) evaluating the relationship between normative misperceptions of IPV and violent behavior. More specifically, we aimed to evaluate whether men who engage in more IPV differ from men who engage in less IPV in their perceptions of violence among other men; and (d) discussing the clinical application of perceived norms in treating IPV perpetrators.

Method

Participants were screened from 348 male callers who responded to various forms of advertising media, including radio and newspaper ads, flyers distributed throughout the community, and referrals from professionals and friends. Each caller completed two anonymous or confidential screening phone calls to determine his eligibility to participate in the project. Eligibility criteria included behaving abusively toward an intimate partner in the past 90 days, using substances in the past 90 days, not currently being adjudicated in a domestic abuse-related court matter, not having been arrested in the past 90 days for domestic abuse or a substance use charge, and not currently participating in IPV or substance abuse treatment.

Current engagement in domestic abuse behaviors was assessed using the Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). During screening, each caller was asked about his lifetime behaviors and past 90-day behaviors from the injury, physical violence, sexual violence, and psychological abuse scales of the CTS2. Callers who reported engaging in at least one behavior in the past 90 days and one nonpsychological behavior in their lifetime were eligible to participate in the project.

Eligible callers who completed the screening process were scheduled to complete a baseline assessment by telephone prior to randomization. Participants had the right to refuse to answer any or all of these questions. Of the 348 callers, 124 were found eligible to participate in the study and completed a baseline assessment. The 124 participants identified their race as follows: White (63%), African American (16%), Asian/Asian American (5%), American Indian (4%), Multiracial (2%), and Other (4%). The age distribution of participants was 18 to 30 (25.00%), 31 to 40 (29.03%), 41 to 50 (31.45%), and 51+ (14.52%). Eligible callers were demographically similar to ineligible callers; however, the present sample included a higher proportion of White and older men than would be expected in a larger/more representative sample of IPV perpetrating men.

Measures

Perceived norms were assessed by a questionnaire constructed for the present study. Participants were asked to estimate the percentage of men who have ever engaged in the following seven behaviors with their partners: throwing something at their partner that could hurt; pushing, grabbing, or shoving their partner; slapping or hitting their partner; choking their partner; beating up their partner; threatening their partner with a gun; and

making their partner have sex with them or “give in” to sex when their partner did not want to. Internal consistency reliability among the seven items was high ($\alpha = .92$).

Abusive behavior was assessed using a modified version of the CTS2 (Straus et al., 1996). The scale was modified to assess the frequency of violent behaviors perpetrated over the past 90 days. Psychological abuse was assessed with eight items (e.g., insulted or swore at partner; destroyed something that belonged to partner). All participants reported engaging in one or more forms of psychological abuse at least once over the past 90 days. The score for psychological abuse was thus computed as the sum of the eight items in which participants reported the number of times they had engaged in each behavior over the past 90 days with scores for all items capped at a maximum of 90 ($\alpha = .80$). Physical violence including injurious behavior was assessed with 18 items (e.g., slammed partner against wall; partner had a broken bone from a fight with participant). Frequency counts were relatively low for these behaviors with 62% of the sample reporting no physical assault or injurious behaviors over the past 90 days. Thus, the score for this variable was computed as the sum of dichotomously coded items indicating whether they had engaged in each of the 18 behaviors over the past 90 days ($\alpha = .78$). Sexual assault was assessed with seven items (e.g., insisted on sex when partner did not want to; used force to make partner have oral/anal sex). Given the relatively low frequency of these behaviors (i.e., 18% of participants reported engaging in one or more sexual assault behaviors in the past 90 days), this variable was also initially scored as the sum of dichotomously coded items indicating whether they had engaged in each act over the past 90 days ($\alpha = .34$). Due to the unacceptable reliability of these items as a scale, we subsequently elected to score sexual assault as a binary variable with 0 indicating “no acts on any sexual assault item” and 1 indicating “one or more acts on any of the sexual assault items.”

Base rate norms for adult IPV perpetration. Careful consideration was employed in choosing a source for estimating base rate norms for the prevalence of these violent behaviors. The two most relevant databases available are the NVAWS (Tjaden & Thoennes, 2000) and the National Family Violence Survey (NFVS; Straus & Gelles, 1990). We ultimately elected to base norms on the NVAWS for several reasons. First, the NVAWS was more recent (1995 vs. 1985). Second, the NFVS was limited to married, cohabiting, or recently separated or divorced adults, thus excluding many intimate relationships that may contain violence that do not fall into any of these categories. Similarly, the NFVS was limited to heterosexual relationships, thus excluding homosexual relationships. Finally, the NVAWS assessed reports of victimization, and domestic violence research has found victim reports of abuse to be more accurate than abusers' self-reports of abuse.

Funded by the National Institute of Justice and Centers for Disease Control and Prevention, the NVAW telephone survey collected data on a nationally representative sample of 8,000 women and 8,000 men regarding their experiences with rape, physical assault, and stalking. Although prevalence and incidence rates were based on victimization and not perpetration of violent acts, respondents were asked about the perpetrator's gender and type of relationship (e.g., intimate partnership). The NVAWS used a modified version of the CTS2 (Straus et al., 1996) to ask respondents about various types of violent acts they may have endured (see Table 1).

Table 1. Calculations of Base Rate Norms for Adult IPV Male Perpetration

Type of Violence	Women Victimized (%; n = 8,000)	No. of Women Victimized (108,133,727 Women >18) ^a	93% of the Women Were Victimized by Men	Men Victimized (%; n = 8,000)	No. of Men Victimized (100,994,367 Men >18) ^a	86% of the Men Were Victimized by Men	Total Women and Men Victimized by Men	Percentage of Men who Victimize Women and Men (100,994,367 Men > 18 Years Old) ^a
Threw something	8.1	8,758,832	8,145,714	4.4	4,443,752	3,821,627	11,967,341	11.85 (12%)
Pushed, grabbed, shoved	18.1	19,572,204	18,202,150	5.4	5,453,695	4,690,178	22,892,328	22.67 (23%)
Slap, hit	16.0	17,301,396	16,090,298	5.5	5,554,690	4,777,033	20,867,331	20.67 (21%)
Choked	6.1	6,596,157	6,134,426	0.5	504,972	434,276	6,568,702	6.50 (7%)
Beat up	8.5	9,191,367	8,547,971	0.6	605,966	521,131	9,069,102	8.98 (9%)
Threatened with gun	3.5	3,784,680	3,519,752	0.4	403,977	347,420	3,867,172	3.83 (4%)
Rape	7.7	8,326,297	7,743,456	0.3	302,983	260,565	8,004,021	7.93 (8%)

Note: IPV = intimate partner violence.

a. Number based on U.S. population aged 18 years and older, U.S. Census Bureau, 2000, Decennial Census (100%)

By using information on the perpetrator’s gender, type of relationship, and decennial 2000 Census data, we were able to estimate the percentage of adult men who have ever engaged (lifetime) in physical assault and rape against female and/or male intimate partners. We first calculated the number of women and men who had been victimized at some point in their lifetime by an intimate partner by multiplying the percentage of the NVAWS sample who had experienced that type of violence by the number of adult women and men (18 years of age and older) in the population. We adjusted these numbers by the percentage of the women (93%) and men (86%) who were victimized by men. We then combined the number of women and men who were victimized by men, and divided that number by the population of adult men, reaching an estimated percentage of men who victimize women and men. Although these calculations are based on the assumption that all the male and female victims were abused by different male perpetrators, they are arguably the best estimates available given a lack of a nationally representative survey directly asking men about their own perpetration of violent acts toward their intimate partners.

Results

A series of one-sample *t* tests were conducted to evaluate the accuracy of IPV perpetrators’ perceptions of the prevalence of specific behaviors. Perceptions were compared with estimated population values derived from the National Database as described above. Effect size *d* was calculated as the difference between the mean of the perceived norm and the estimated population value divided by the standard deviation of the perceived norm (Cohen, 1988). By convention, effect sizes in the range of .2, .5, and .8 are considered

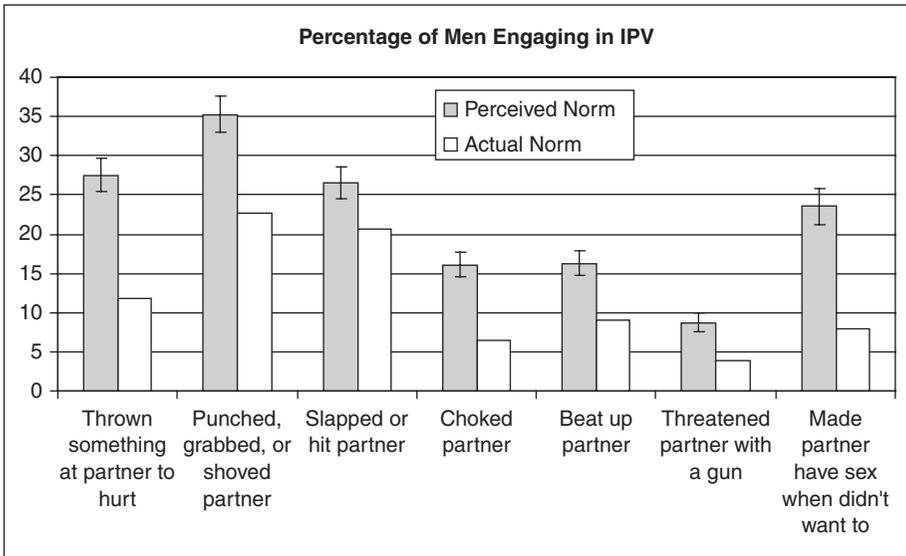


Figure 1. Normative misperceptions of violent behaviors by IPV perpetrating men
 Note: IPV = intimate partner violence.

small, medium, and large, respectively (Cohen, 1992). Distributions for all variables were examined for significant departure from normality. Both *t* tests and correlations have been consistently described as being robust to moderate departures from normality (e.g., Cohen, Cohen, West, & Aiken, 2003). With the exception of the perceived norm for threatening a partner with a gun, the distributions of perceptions did not approach extreme departure (Kline, 1998) from normality (all skewness and kurtosis values were within the +2 to -2 range). The distribution of the perceived norm for threatening a partner with a gun was positively skewed (2.47) and leptokurtic (6.73), suggesting caution in interpreting the results of the one-sample *t* test for this variable.

Results of one-sample *t* tests indicated that IPV perpetrators overestimated the prevalence rates of all seven behaviors on which perceived norms were assessed. Moreover, men overestimated the percentage of men who had ever thrown something at a partner to hurt, $t(123) = 7.61, p < .001, d = .68$; punched, grabbed, or shoved a partner, $t(123) = 5.51, p < .001, d = .49$; slapped or hit a partner, $t(123) = 3.01, p < .01, d = .27$; choked a partner, $t(123) = 6.17, p < .001, d = .55$; beat up a partner, $t(123) = 4.71, p < .001, d = .42$; threatened a partner with a gun, $t(123) = 4.13, p < .001, d = .37$; and made a partner have sex when they did not want to, $t(121) = 6.81, p < .001, d = .62$. Figure 1 presents means and standard errors for perceived norms relative to actual estimates.

To evaluate whether normative misperceptions were associated with IPV behaviors, we first calculated variables representing the discrepancy between participants' perceptions and actual norms for each of the seven specific behaviors by subtracting the actual norm as

Table 2. Means and Standard Deviations for Perceived Norms and Normative Misperceptions

Norm	Perceived Norm (%)		Actual Norm (% from NVAWS)	Normative Misperception
	M	SD		
Thrown something at partner to hurt (11.85)	27.55	22.98	11.85	15.70
Punched, grabbed, or shoved partner (22.67)	35.26	25.45	22.67	12.64
Slapped or hit partner (20.67)	26.56	21.78	20.67	5.89
Choked partner (6.50)	16.06	17.24	6.50	9.56
Beat up partner (8.98)	16.28	17.28	8.98	7.30
Threatened partner with a gun (3.83)	8.69	13.09	3.83	4.86
Made partner have sex when they did not want to (7.93)	23.57	25.34	7.93	15.70

Note: NVAWS = National Violence Against Women Survey. For the transformed normative misperception variable “threatened partner with a gun” used in the correlation analysis $M = 1.69, SD = 1.03$.

Table 3. Means and Standard Deviations for IPV Categories

IPV Category	M	SD
Psychological abuse	7.75	12.31
Physical violence including injurious behavior	5.10	3.42
Sexual assault	0.44	0.50

Note: IPV = intimate partner violence. For the transformed psychological abuse variable used in the correlation analysis $M = 1.69, SD = 1.03$.

derived from the NVAWS data and the estimates provided by participants. The distributions of these discrepancy variables, henceforth referred to as normative misperceptions, mirrored the distributions for the perceived norms variables reported above. Normative misperceptions of threatening a partner with a gun considerably violated the normality assumption, and for the purposes of correlation analyses we used a constant (5) + log transformation on this variable, which substantially reduced skewness (.74) and kurtosis (-.58). The distributions of the IPV variables did not approach extreme departure from normality for physical violence, including injurious behavior or sexual assault (skewness and kurtosis values were within the +2 to -2 range), but did for psychological abuse (skewness = 2.47; kurtosis = 5.59). For the latter variable, we performed a constant (5) + log transformation that considerably reduced skewness (1.38) and kurtosis (1.01).

Table 2 presents means and standard deviations for perceived norms and normative misperceptions. Table 3 presents means and standard deviations for IPV categories. Table 4

Table 4. Correlations Between Normative Misperceptions and IPV

Normative Misperception	Psychological Abuse	Physical Violence/Injury	Sexual Assault
Thrown something at partner to hurt	.32***	.28**	.13
Punched, grabbed, or shoved partner	.24**	.28**	.12
Slapped or hit partner	.34***	.30***	.15
Choked partner	.44***	.29**	.14
Beat up partner	.38***	.34***	.16
Threatened partner with a gun	.33***	.26**	.14
Made partner have sex when they did not want to	.18*	.01	.22*

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

presents correlations of normative misperceptions for each specific behavior as well as the mean of the normative misperceptions with psychological abuse; physical violence, including injurious behavior; and sexual violence. Overall results indicate positive associations between perceived norms and IPV, with strongest associations for psychological abuse.

Discussion

The present research evaluated the potential utility of providing social norms feedback to IPV perpetrating men. The logic for the application of personalized normative feedback as it has been applied in other domains can be described as follows: If perceptions of the prevalence of a given behavior influence one's own behavior (i.e., perceiving a given behavior as more common ["normal"] is associated with greater likelihood of engaging in the behavior) and one overestimates the prevalence of that behavior, then correcting this misperception should reduce the behavior. This research provides support for the first two components of this logic applied to IPV perpetrating men. Results indicated that IPV perpetrating men overestimated the prevalence of seven specific violent behaviors and that their perceptions/misperceptions were associated with their behavior. Moreover, the more they overestimated the more they themselves reported engaging in psychological abuse and physical violence, including injurious behavior. Alternatively, men who reported engaging in more psychological abuse and physical violence, including injurious behavior, held greater normative misperceptions of IPV related to men who reported engaging less in these behaviors. With respect to sexual assault, the association was more specific. Engaging in sexual assault was associated with normative misperceptions of sexual assault but was not associated with normative misperceptions of other IPV behaviors. Similarly, overestimating the prevalence of sexual assault was associated with greater likelihood of engaging in sexual assault and psychological abuse but not other forms of physical violence.

This research was conducted in the context of considering MET as a means of reaching substance-using, IPV-perpetrating men and motivating them to take steps toward changing their behavior. Correction of normative misperceptions has been an important part of this approach for other behaviors. The primary objectives of this research were to provide evidence for the potential utility of this approach by evaluating whether IPV perpetrating men overestimate the prevalence of IPV behaviors and to evaluate the relationship between perceived IPV norms and IPV behavior. As described below, we also wished to disseminate estimates for actual norms and to describe how they might be used therapeutically with IPV perpetrators in the context of MET and other related approaches (Roffman et al., 2008).

The normative data published here are directly applicable and can be implemented in the context of treatment efforts to motivate behavior change in this population. As found here, men who are engaging in IPV tend to overestimate how often those behaviors are engaged in by other men. Allowing clients to examine and discuss the normative data can have several positive outcomes. First, becoming aware of the actual rates of these behaviors in society can provide objective data that suggest engaging in violence toward an intimate partner is outside the norm of what others do and thus is a less desirable behavior. Second, observing that his own perceptions of the rates of violence are exaggerated can provide the impetus for an engaging discussion on why his perceptions might be high. This is an opportunity for the client to learn that we tend to believe that others engage in the same behaviors we do. As IPV is often a taboo topic, it can be difficult to gauge what others are doing. In addition, one's own experience and family history can affect perceptions of behavioral norms. For example, if a client witnessed IPV as a child, he may overestimate the proportions of others who engage in those behaviors. Third, correcting normative misperceptions may motivate a client to change his behavior.

What would feedback on normative misperceptions look like in a clinical setting? Figure 2 is an example of the type of normative data feedback that we have provided in our ongoing clinical trial. A graph is provided that displays a bar representing the estimated actual percentage of men who have engaged in these behaviors; the other bar represents a hypothetical client's estimate of the frequency of this behavior. The counselor introduces these data by saying, "We asked you to estimate the prevalence of a number of domestic violence-related behaviors. Here are your estimates compared with the actual percentages of men who have engaged in these behaviors. The data represented here came from the NVAWS that polled 8,000 men and 8,000 women across the United States on violence in their intimate relationships. The participants in this survey were assured their responses would remain confidential and they were urged to respond truthfully, so we have confidence these numbers are representative of the violence that is occurring within the United States. What do you make of this?" The client is provided an opportunity to ask questions about the data and to discuss his thoughts. It is typical for men to be surprised that their estimates of the proportion of men who engage in IPV are higher than the actual proportion of men who engage in IPV. Counselors often reflect this surprise and provide additional information: "You are surprised that you overestimated how many other men do these things. It's very common for people to believe that everyone else does the same things they do. This may be because we tend to surround ourselves with people who have similar

The Men's Domestic Abuse Check-Up

How Your Estimates Compare

We asked you to estimate the percentage of men who have engaged in various behaviors with their partners. Here are your estimates compared to the actual percentage of men:

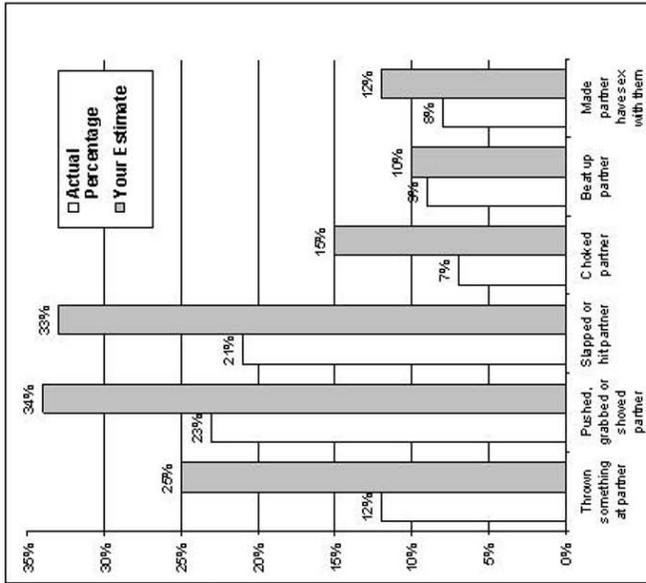


Figure 2. Example of personalized normative feedback

interests, beliefs, or attitudes as ours. This can make it easy for us to incorrectly assume that our behavior is more typical than it actually is. The important thing you are seeing here is that fewer men do these things than you thought.”

A second technique is to highlight the violent behaviors the client reported. In this way, specific attention can be placed on the personal relevance of these norms to the participant, and the participant gains an awareness of how infrequently the violence he has engaged in is happening in other relationships. For example, a counselor might review the normative data from the survey in the following way: “You estimated that 27% of men have thrown something at their partner to hurt. The actual rate of this behavior is 12%. This is one of the items that you reported doing to your partner. What do you make of these numbers?”

Personalizing this feedback with the participants’ own reports of violent behavior must be done delicately, using the full spirit of motivational interviewing (including collaboration, evocation, and autonomy supporting). Reactions to this information are likely to vary considerably, including interest and surprise (ideally), apathetic disregard, justification, and/or disbelief and challenging the credibility of the data. For example, suppose an individual estimates that 25% of men have slapped or hit their partner. In being informed that the actual norm is 20%, a given individual may perceive this as a relatively large percentage of men, providing some justification—“Lots of men (one in five) slap their partners from time to time”—rather than responding with surprise and discomfort at being in the 20% minority. A skilled MET therapist might use this as an opportunity to present a complex reflection, for example, “You’ve expressed some ambivalence about your behavior toward your partner, and it’s comforting to know you aren’t the only one.” Relatedly, the magnitude of discrepancy is likely to vary considerably across behaviors and individuals. Dramatic discrepancies are more likely to result in correction of normative misperceptions, but even accurate estimations (or discrepancies of only one or two percentage points) provide the opportunity to discuss societal norms regarding the behavior. As with any therapeutic technique, efficacy is likely to be influenced by the skills of the provider. If there is a hint of disgust, confrontation, or judgment in the delivery of this type of feedback, the participant is likely to defend or minimize his actions. Moreover, such a tone can destroy rapport. Damaging the therapeutic relationship or eliciting defensiveness from the client is unlikely to produce an environment conducive to change.

Limitations and Conclusions

To our knowledge, this research represents the first study that has evaluated normative misperceptions of abusive behaviors in men who are perpetrators of IPV. There are several limitations that warrant consideration in interpreting the findings. Additional research is necessary to evaluate the generalizability of these results given the sample characteristics.

Data were drawn from a relatively small sample of substance-using, IPV-perpetrating men volunteering for a research study advertised as an opportunity for them to talk with someone about their behavior. Another limitation of this work is the difficulty in verification of actual norms. As detailed in the measures section, we elected to use the NVAWS for a variety of

reasons, including its size, recency, inclusiveness, and emphasis on victims' reports. Nevertheless, it is important to note that the norms we calculated are estimates. In addition, the absence of men who do not engage in IPV from the sample precludes our ability to suggest that men who engage in IPV differ in their normative perceptions from men who do not engage in IPV. However, the results do suggest that perpetrating men who engage in more IPV differ from men who engage in less IPV in their perceptions of violence among other men.

A further limitation is that data were cross-sectional and preclude inferences regarding the causal direction between perceived norms and behavior. It is unclear the extent to which overestimating the prevalence of domestic abuse may influence an individual's behavior versus the reverse; men who engage in domestic abuse may justify their behavior by assuming it is more common than it is. It is plausible that both directions may be operating simultaneously, as has been found in other longitudinal research examining temporal precedence of the norms-behavior relationship in other contexts (Neighbors, Dillard, et al., 2006). Additional research evaluating IPV norms and behavior over time would allow more direct evaluation of this issue. Another issue worthy of additional attention is the specificity of the referent in normative feedback. This research focuses on national norms for men in the United States. However, consistent with social impact theory (Latane, 1981) and social identity theory (Tajfel & Turner, 1986), emerging evidence in other domains suggests that more specific/subcultural referent groups might have more influence in normative feedback, and this may be more true for some subgroups than others (e.g., Borsari & Carey, 2003; Lewis & Neighbors, 2007; Neighbors et al., 2007). Thus, additional work considering more specific normative referent groups in the context of IPV perpetration may prove useful. Nevertheless, the preliminary documentation that IPV perpetrating men overestimate the national prevalence of domestic violence and that their estimates are significantly and positively correlated with their own behavior provides an important first step in understanding and applying normative feedback in motivating behavior change.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the authorship and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research and/or authorship of this article: Preparation of this manuscript was supported in part by the National Institute on Drug Abuse Grant R01DA017873.

References

- Babcock, J. C., Green, C. E., & Robie, C. (2004). Does batterers' treatment work? A meta-analytic review of domestic violence treatment. *Clinical Psychology Review, 23*, 1023-1053.
- Baer, J. S., Stacy, A., & Larimer, M. (1991). Biases in the perception of drinking norms among college students. *Journal of Studies on Alcohol, 52*, 580-586.
- Beatty, A., Syzdek, M., & Bakum, A. (2006). The Saint John's Experience Project: Challenging men's perceptions of normative gender role conflict. *Journal of Men's Studies, 14*, 322-336.

- Bennett, L., & Williams, O. J. (2001). *Controversies and recent studies of batterer intervention effectiveness*. Harrisburg, PA: National Electronic Network on Violence Against Women (VAWnet, PCADV/NRCADV). Available from <http://www.vawnet.org>
- Bergstrom, R. L., Neighbors, C., & Lewis, M. A. (2004). Do men find "bony" women attractive?: Consequences of misperceiving opposite sex perceptions of attractive body image. *Body Image, 1*, 183-191.
- Bergstrom, R. L., Neighbors, C., & Malheim, J. E. (2009). Media comparisons and threats to body image: Seeking evidence of self-affirmation. *Journal of Social and Clinical Psychology, 28*, 264-280.
- Borsari, B., & Carey, K. B. (2000). Effects of a brief motivational intervention with college student drinkers. *Journal of Consulting and Clinical Psychology, 68*, 728-733.
- Borsari, B., & Carey, K. B. (2001). Peer influences on college drinking. *Journal of Substance Abuse, 13*, 391-424.
- Borsari, B., & Carey, K. B. (2003). Descriptive and injunctive norms in college drinking: A meta-analytic integration. *Journal of Studies on Alcohol, 64*, 331-341.
- Chan, K. K., Neighbors, C., Gilson, M., Larimer, M. E., & Marlatt, G. A. (2007). Epidemiological trends in drinking by age and gender: Providing normative feedback to adults. *Addictive Behaviors, 32*, 967-976.
- Chia, S. C., & Gunther, A. C. (2006). How media contribute to misperceptions of social norms about sex. *Mass Communication and Society, 9*, 301-320.
- Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1991). A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. *Advances in Experimental Social Psychology, 24*, 201-234.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. San Diego, CA: Academic Press.
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*, 155-159.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Cunningham, J. A., Humphreys, K., & Koski-Jannes, A. (2000). Providing personalized assessment feedback for problem drinking on the Internet: A pilot project. *Journal of Studies on Alcohol, 61*, 794-798.
- Cunningham, J. A., Wild, T. C., Bondy, S. J., & Lin, E. (2001). Impact of normative feedback on problem drinkers: A small-area population study. *Journal of Studies on Alcohol, 62*, 228-233.
- Fabiano, P. M., Perkins, W., Berkowitz, A., Linkenbach, J., & Stark, C. (2003). Engaging men as social justice allies in ending violence against women: Evidence for a social norm approach. *Journal of American College Health, 52*, 105-112.
- Feder, L., & Wilson, D. B. (2005). A meta-analytic review of court-mandated batterer intervention programs: Can courts affect abusers' behavior? *Journal of Experimental Criminology, 1*, 239-262.
- Gondolf, E. W. (2004). Evaluating batterer counseling programs. *Aggression and Violent Behavior, 9*, 605-631.
- Henneberg, M. (2000). *Bureau of Justice Statistics 2000: At a glance*. (Publication No. NCJ183014). Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.

- Holtzworth-Munroe, A., Meehan, J. C., Herron, K., & Rehamn, U. (2000). Testing the Holtzworth-Munroe and Stuart (1994) batterer typology. *Journal of Consulting and Clinical Psychology, 68*, 1000-1019.
- Kilmer, J. R., Walker, D. D., Lee, C. M., Palmer, R. S., Mallett, K. A., Fabiano, P., et al. (2006). Misperceptions of college student marijuana use: Implications for prevention. *Journal of Studies on Alcohol, 67*, 277-281.
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York: Guilford.
- Larimer, M. E., & Neighbors, C. (2003). Normative misperceptions and the impact of descriptive and injunctive norms on college student gambling. *Psychology of Addictive Behaviors, 17*, 225-243.
- Latane, B. (1981). The psychology of social impact. *American Psychologist, 36*, 343-356.
- Lewin, K. (1943). Defining the "field at a given time." *Psychological Review, 50*, 292-310.
- Lewis, M. A., Lee, C. M., Patrick, M. E., & Fossos, N. (2007). Gender-specific normative misperceptions of risky sexual behavior and alcohol-related risky sexual behavior. *Sex Roles, 57*, 81-90.
- Lewis, M. A., & Neighbors, C. (2004). Gender-specific misperceptions of college student drinking norms. *Psychology of Addictive Behaviors, 18*, 334-339.
- Lewis, M. A., & Neighbors, C. (2006). Social norms approaches using descriptive drinking norms education: A review of the research on personalized normative feedback. *Journal of American College Health, 54*, 213-218.
- Lewis, M. A., & Neighbors, C. (2007). Optimizing personalized normative feedback: The use of gender-specific referents. *Journal of Studies on Alcohol and Drugs, 68*, 228-237.
- Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing* (2nd ed.). New York: Guilford.
- Neighbors, C., Dillard, A. J., Lewis, M. A., Bergstrom, R. L., & Neil, T. A. (2006). Normative misperceptions and temporal precedence of perceived norms and drinking. *Journal of Studies on Alcohol, 67*, 290-299.
- Neighbors, C., Larimer, M. E., & Lewis, M. A. (2004). Targeting misperceptions of descriptive drinking norms: Efficacy of a computer-delivered personalized normative feedback intervention. *Journal of Consulting and Clinical Psychology, 72*, 434-447.
- Neighbors, C., Lewis, M. A., Bergstrom, R. L., & Larimer, M. E. (2006). Being controlled by normative influences: Self-determination as a moderator of a normative feedback alcohol intervention. *Health Psychology, 25*, 571-579.
- Neighbors, C., Lostutter, T. W., Whiteside, U., Fossos, N., Walker, D. D., & Larimer, M. E. (2007). Injunctive norms and problem gambling among college students. *Journal of Gambling Studies, 23*, 259-273.
- Roffman, R. A., Edleson, J. L., Neighbors, C., Mbilinyi, L., & Walker, D. (2008). The Men's Domestic Abuse Check-up: A protocol for reaching the non-adjudicated and untreated man who batters and abuses substances. *Violence Against Women, 14*, 589-605.
- Salazar, L. F., Baker, C. K., Price, A. W., & Carlin, K. (2003). Moving beyond the individual: Examining the effects of domestic violence policies on social norms. *American Journal of Community Psychology, 32*, 253-264.
- Sherif, M. (1936). *The psychology of social norms*. New York: Harper.

- Smitley, M., & Straus, M. A. (2003). Primary prevention of intimate partner violence. In H. Kury & J. Obergfell-Fuchs (Eds.), *Crime prevention: New approaches* (pp. 239-276). The Max Planck Institute. Mainz, Germany: Weisser Ring.
- Straus, M., & Gelles, R. (1990). *Physical violence in American families—Risk factors and adaptations to violence in 8,145 families*. New Brunswick, NJ: Transaction Publishers.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The Revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues, 17*, 283-316.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of inter-group behavior. In S. Worchel & L. W. Austin (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago: Nelson-Hall.
- Taylor, C. A., & Sorenson, S. B. (2004). Injunctive social norms of adults regarding teen dating violence. *Journal of Adolescent Health, 34*, 468-479.
- Taylor, C. A., & Sorenson, S. B. (2005). Community-based norms about intimate partner violence: Putting attributions of fault and responsibility into context. *Sex Roles, 53*, 573-589.
- Tjaden, P., & Thoennes, N. (2000). *Full report of the prevalence, incidence, and consequences of violence against women*. Washington, DC: Office of Justice Programs, U.S. Department of Justice.
- Williams, K. R., & Hawkins, R. (1992). Wife assault, costs of arrest, and the deterrence process. *Journal of Research in Crime and Delinquency, 29*, 292-310.

Bios

Clayton Neighbors, PhD, is a social psychologist and professor at the University of Houston, Department of Psychology. His work focuses on social and motivational influences in etiology, prevention, and treatment of alcohol and substance abuse, problem gambling, body image and eating disorders, and intimate partner violence.

Denise D. Walker, PhD, is a research assistant professor at the University of Washington, School of Social Work and is co-director of the Innovative Programs Research Group (IPRG). Her research focuses on the development and evaluation of interventions and treatment for marijuana, substance abuse, intimate partner violence, and other risky behaviors. Her work has specifically targeted research involving motivational interviewing.

Lyungai F. Mbilinyi, MPH, PhD, is a research assistant professor at the University of Washington, School of Social Work, and also co-directs the Innovative Programs Research Group (IPRG). Her work has been on intimate partner violence research, intervention research, violence prevention and intervention therapy, and the experience of African immigrants and refugees in the United States.

Allison O'Rourke was the data manager for the Innovative Programs Research Group and contributed to the Men's Domestic Abuse Check-Up study. She has participated in research on a number of studies in the addiction treatment field.

Jeffrey L. Edleson, PhD, is Professor and the Director of Research at the University of Minnesota School of Social Work and Director of the Minnesota Center Against Violence and Abuse. He is one of the world's leading authorities on children exposed to domestic violence and has published over 100 articles and 10 books on domestic violence, groupwork, and program evaluation. Professor Edleson is the co-author with the late Susan Schechter of *Effective Intervention in Domestic Violence and Child Maltreatment Cases: Guidelines for Policy and Practice* (1999, NCJFCJ). Better known as the "Greenbook," this best-practices guide has been the subject of six federally-funded and numerous other demonstration sites across the country. Professor Edleson has also conducted intervention research and provided technical assistance to domestic violence programs and research projects across North America as well as in several other countries including Germany, Israel, Cyprus, India, Australia, Korea, and Singapore.

Joan Zegree, MSW, LICSW, is the clinical co-director of the Men's Domestic Abuse Check-Up, a NIDA-funded, telephone-based intervention trial, evaluating Men's Motivational Enhancement Therapy with abusive men. Joan also maintains a private practice and a state-certified domestic violence treatment program in Seattle. She is an adjunct assistant professor of social work at the University of Washington. Joan has a BA in Sociology and an MSW from the University of Washington–Seattle. Joan has conducted clinical research on domestic violence intervention and consults nationally and internationally on domestic violence intervention, the impact of domestic violence on children, domestic violence in the workplace, and program and public policy development.

Roger A. Roffman, DSW, is a professor of social work at the University of Washington and the founding director (1985) of the School's Innovative Programs Research Group. With funding from the National Institute on Drug Abuse and the Center for Substance Abuse Treatment over a twenty year period, he has collaborated with Dr. Robert Stephens in conducting a series of outcome trials of behavioral interventions tailored for marijuana dependent adults. His more recent research has focused on developing and testing a brief intervention intended to reach adult males who are concurrently engaging in intimate partner violence and the abuse of alcohol and/or other drugs.