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Publisher Routledge

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Health Care for Women International

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title-content=t713723020>

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Online Publication Date: 01 January 2009

To cite this Article Hawkins, Joellen W., Haggerty, Lois A., Pearce, Carole W., Kelly, Ursula and Grady, Kelly(2009)'Adapting and Testing the Appraisal of Violent Situation Scales',Health Care for Women International,30:1,5 — 21

To link to this Article: DOI: 10.1080/07399330802523485

URL: <http://dx.doi.org/10.1080/07399330802523485>

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Adapting and Testing the Appraisal of Violent Situation Scales

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Received 21 July 2006; accepted 30 November 2007.

The authors thank the Pregnancy Support Project Team: Barbara Hazard, RN, PhD, FAAN, Dean and Professor, William F. Connell School of Nursing, Boston College; Ann M. Chalifour,* ARNP, MS, Women's Health Nurse Practitioner, Manchester Obstetrical Associates; Mitra Perel,* RN, WHNP-BC, MS, Women's Health Nurse Practitioner, Ob/Gyn Associates of the North Shore; Lisa H. Tabenken,* RN, WHNP-BC, MS, Women's Health Nurse Practitioner; Sharyl Eve Toscano,* RN, CS-FNP, PhD, Assistant Professor of Nursing, University of Vermont; Margaret H. Kearney,* RN, PhD, Independence Foundation Professor, Director, PhD and MS/PhD Programs, University of Rochester; Joyce Dwyer, RN, MS, MPH, Associate Professor, retired; Loretta P. Higgins, RN, EdD, Associate Professor Emerita and Associate Dean retired, William F. Connell School of Nursing, Boston College; Cynthia S. Aber, RN, EdD, Associate Professor and Chairperson, retired; Deborah Mahony, RN, PNP-CS, DrPH, Associate Professor, University of Massachusetts, School of Nursing; Margaret C. Bell, RN, MS, MPH, CS, *** New England Research Institutes.

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**PSP: Pregnancy Support Project so named to protect the women participants.

This study was part of a research project entitled Abuse, Women's Self-Care, and Pregnancy Outcomes, funded by a National Institute for Nursing Research, National Institutes of Health AREA grant 1 R15 NRO4246-01.

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The purpose of this study was to test the psychometric properties of a vertical version of horizontally oriented three Appraisal of Violent Situation scales that elicit women's subjective appraisals of severity, dangerousness, and controllability of violence. Construct validity of the vertical scale eliciting 64 abused women's perceptions of severity of violence experienced was supported by a low to modest correlation between that scale and the Severity of Violence Against Women Scale. Concurrent validity between the horizontal and vertical versions of the scales was demonstrated with a subsample of 26 abused women completing both. Results provide preliminary support for the revised scales.

Domestic violence, a public health problem of epidemic proportions, continues to challenge health care providers to develop easy to use and sensitive assessment tools. Estimates are that U.S. women 18 and older experience nearly 5.3 intimate partner victimizations each year, resulting in nearly two million injuries and nearly 1,300 deaths (National Center for Injury Prevention and Control, 2003). In the United States between 1991 and 1999, homicide was the second leading cause of injury deaths for women during pregnancy and their babies' first year of life (Chang, Berg, Saltzman, & Herndon, 2005). Intimate partners perpetrate 40% to 50% of femicides in the United States, and femicide is now the Seventh leading cause of premature death for women (Campbell et al., 2003). The cost of domestic violence to society in the United States alone includes 555,000 injuries requiring medical intervention, 18.5 million mental health care visits, and 13.6 million days of lost productivity from paid work, household work, and the lost lifetime earnings of murder victims (National Center for Injury Prevention and Control, 2003).

Globally, in a multisite study of 24,000 women, the researchers found that the proportion of ever-partnered women from 15% sites in 10 countries with diverse cultures who had experienced intimate partner violence ranged from 15% to 71%, with the highest number of women reporting such violence living in Peru, Tanzania, Bangladesh, and Ethiopia (World Health Organization, 2005). Thus, screening for severity of intimate partner violence and identifiable risk factors is essential to preventing mortality and reducing costs of this violence.

The purpose of this study was to test the concurrent and construct validity of the three appraisal of violent situation scales that were converted from the original horizontal to a vertical orientation. Dutton (1992) created these scales to measure women's perceptions of the (1) severity of the violence they experience; (2) the danger associated with that violence—that is, the likelihood that the violence will result in injury or death; and, finally, (3) their ability to control the violence. These analyses were part of a larger study of violence during pregnancy and its impact on pregnancy outcomes.

BACKGROUND AND CONCEPTUAL FRAMEWORK

Elliott and Eisdorfer (1982)) noted that a potential mediator of the relationship between stress and adaptational outcomes is the individual's cognitive appraisal of the stressor. Appraisal has been identified as a mediator of adaptation to stress in numerous studies (Chiriboga, Jenkins, & Bailey, 1983; Gass, 1987; Mishel, 1990; Walker, 1989; Yarcheski & Mahon, 1987). Smith, Tessaro, and Earp (1995) studied battered women's responses using a qualitative analysis based on 400 pages of data from focus groups. These researchers found that women actively appraised their susceptibility to future harm, the severity of risk associated with the violence they were experiencing, and the controllability of that risk. Therefore, a woman's cognitive appraisal of the severity of abuse may mediate some of her responses to that abuse.

Marshall (1992), Straus, Hamby, Boney-McCoy, and Sugarman (1996), and other researchers and clinicians have developed instruments for the purpose of predicting or delineating the risk associated with violent acts against women. These instruments are lists of discrete acts of violence women endure or the characteristics of batterers, rather than women's subjective appraisals of violence. Yet researchers have suggested that women's perceptions of their risk are important predictors of reassault (Heckert & Gondolf, 2004; Weisz, Tolman, & Saunders, 2000) and can add to the predictability of risk when combined with known risk factors in various models. For our study of abuse during pregnancy, variables of interest included women's appraisals of the (1) severity and (2) danger of the violence they were enduring as well as (3) their beliefs about their ability to control the violence they were experiencing.

Women's Appraisals of Violence Severity, Danger, and Controllability

While the research literature related to violence against women is extensive, relatively few researchers have addressed women's appraisals of violence severity and danger as predictors of future violence. There are, however, a few exceptions. In a sample of 499 women, Heckert and Gondolf (2004) noted that women's perceptions of risk were strong predictors of reassault and improved predictability of reassault, when combined with risk factors and selected instruments including the Danger Assessment Screen (Campbell, 2004). Women's predictions alone were almost as strong as the Danger Assessment Screen predictions, stronger than the Kingston Screening Instrument for Domestic Violence (K-SID; Gelles & Tolman, 1998), and similar in predictive value to the Spousal Assault Risk Assessment (SARA; Kropp & Hart, 2000). Similarly, Weisz, Tolman, and Saunders (2000)) found that survivors ($N = 177$) who predicted no violence or a strong likelihood of subsequent violence were likely to be correct within a 4-month period,

and their predictions improved the likelihood of repeat violence when added to risk factor variables in multiple regression equations. Campbell and Colleagues (2003) noted in a national study of femicide that approximately one-half of 456 female victims of male partner violence accurately perceived their risk of being killed by their abusive partner. These researchers, however, cautioned that women were unlikely to overestimate their risk, but very likely to underestimate the severity of their violence situations. Campbell and colleagues (2003) also suggested that women's perceptions of the danger and severity of the violence they are experiencing are critically important factors to consider during assessment of women experiencing violence.

While a number of investigators have explored women's methods of coping with violence, we have identified only one study whose investigators commented on women's ability to control (stop) violence *per se*. The exception is a qualitative study by Smith and colleagues (1995). In their analysis, the authors found that battered women perceived themselves as unable to control violence except by self-silencing or compliance with the batterer. For our study of abuse during pregnancy, women's cognitive appraisals were measured using a vertical adaptation of the three horizontally oriented visual analogue scales from the Appraisal of Violent Situation scales (Dutton, 1992). These scales address a woman's perceptions of the severity of intimate partner violence perpetrated against her; how able the woman feels she is able by any means to stop the violence against her in the future; and how likely it is, in her opinion, that the violence might lead to serious physical harm or possible death.

STUDY QUESTIONS

In order to determine the concurrent and construct validity of the vertically reoriented scales, we addressed the following research questions: (1) Is there a significant relationship between women's scores on the vertically oriented Appraisal of Violent Situation scales and their scores on the horizontally oriented Appraisal of Violent Situation scales? (2) Are women's scores on the three vertical visual analogue scales of the Appraisal of Violent Situation scales significantly correlated with their scores on the Severity of Violence Against Women scale (Marshall, 1992)?

STUDY INSTRUMENTS

The instruments were used for this study included the Severity of Violence Against Women Scale (Marshall, 1992) and the three vertically adapted scales from the Appraisal of Violent Situation scales (Dutton, 1992). These scales were developed by Dutton in a visual analogue format.

Severity of Violence Against Women Scale

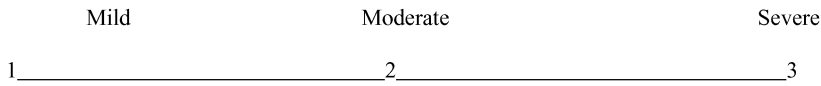
The 46-item Severity of Violence Against Women Scale was chosen as an instrument to measure the construct validity of the three Appraisal of Violent Situations scales. The Severity of Violence Against Women Scale, developed by Marshall (1992), includes aspects of male violence against women not tapped by other commonly used research instruments. Parker found that the items elicited the kind of information from abused women “that they want to tell us” (B. Parker, personal communication, May 24, 1995). That is, the items were designed to reflect types of violence most worrisome to women, including symbolic violence (directed at pets or objects) and threats of violence, as well as actual physical and sexual violence. An in-depth description of the impact weighting of the items is included in Marshall’s article (1992). She suggested that when a sample is drawn from the community at large, researchers should use the impact weighting of the items. The Severity of Violent Situation scale was scored as two interval-level subscales per Marshall’s instructions: symbolic/threats of violence (19 items) and actual violence (27 items). Marshall established reliability with Cronbach’s alpha of .92 for the 19-item symbolic/threats subscale and .96 for the 27-item physical/sexual violence subscale (Marshall, 1992). In our study, internal reliability for the two subscales was 0.95 for symbolic/threats and 0.95 for actual violence (Haggerty, Kelly, Hawkins, Pearce, & Kearney, 2001).

Appraisal of Violent Situation Scales

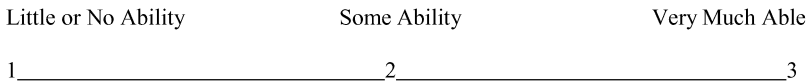
Dutton (1992)) constructed the six visual analogue scales composing the Appraisal of Violent Situation scales as a clinical instrument, noting that given “the battered woman’s extensive experience with her abusive partner’s behavior, understanding her appraisal of the situation is essential” (p. 250). The three scales most relevant to our study were those that elicit the following: (1) a woman’s appraisal of the severity of violence perpetrated on her by a partner or spouse, (2) her ability to stop violence against her in the future, and (3) the likelihood that the violence could lead to serious physical harm or death for her (see Figure 1). Of significance, Dutton emphasized the relationship of women’s expectations of ongoing and severe violence to their sense of trust and safety. Dutton’s original instrument has three additional scales to assess a woman’s perception of the severity of the violence she has perpetrated toward her partner/spouse, her ability to control her violence against her partner/spouse in the future, and how likely that the violence might lead to serious physical harm or death for her partner. Our focus was solely on violence perpetrated by the woman’s partner or spouse and not on her role as a perpetrator of violence, so we did not use these three scales.

Dutton and colleagues (1994)) were able to demonstrate the construct validity of the Appraisal of Violent Situation scales by deriving Pearson

How severe would you rate the violence which has occurred toward you by your partner/spouse?



How able by any means do you see yourself being able to stop the violence against you by your partner/spouse in the future?



How likely do you believe that the violence between you and your partner/spouse might lead to serious physical harm or possible death for you?

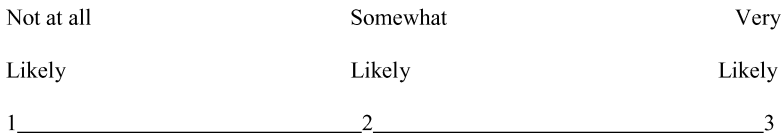


FIGURE 1 Appraisal of violent situation original version. Dutton, M. A. (1992). Appraisal of violent situation. In M. A. Dutton, *Empowering and healing the battered woman* (p. 167). New York: Springer Publishing Co., Inc. Used by permission.

correlation coefficients between scores on the Traumatic Stress Institute Belief Scale—Version D (TSI; Stamm & Bieber, 1992; Stamm, Bieber, & Pearlman, 1991), scores on the same three Appraisal of Violent Situation scales we chose, and responses to the Attribution of Violence Questionnaire (Dutton, 1992). The TSI is a measure of the degree of disruption in cognitive schemata associated with a traumatic experience. Women's cognitions about the causality of violence on the Attribution of Violence Questionnaire (Dutton, 1992) and their appraisals of past violence severity related to ending the violence, and the likelihood of serious physical harm or death were measured by the Appraisal of Violent Situation scales and accounted for 37% of the variance in total TSI scores. Thus, these visual analogue scales are useful in understanding women's appraisals of the intimate partner violence they experience.

Adapting the Three Appraisal of Violent Situation Scales

APPLICATION OF VISUAL ANALOGUE SCALES.

A visual analogue scale consists of a straight line (vertical or horizontal), usually 10 centimeters in length, with labeled anchors at each end. These

anchors present extremes of the phenomenon to be measured. Brunier and Graydon (1996) argued that selection of the anchor words for the scale might influence an individual's response and produce a biased data set. As Gift (1989a) pointed out, researchers and clinicians do not always agree on what constitutes the extremes of a phenomenon. Additionally, the use of descriptive intervals along a visual analogue scale reduces its sensitivity (Gift, 1989a), imposes another's language on the subject, and requires a higher reading level (Cline, Herman, Shaw, & Morton, 1992). Thus, careful choice and testing of the verbal anchors is essential.

Visual analogue scales are simple to use, quick, and reliable for measuring subjective feelings, sensations, perceptions, and symptoms, producing interval-level data that can be subjected to powerful parametric statistical analyses (Cline et al., 1992; Flaherty, 1996; Hagino, Thompson, Advent, & Rivet 1996). Youngblut and Casper (1993) noted that single-item indicators are particularly useful for allowing subjects to express global appraisals of a concept, as they are allowed to make a mark at any point between the two anchor words (Flaherty, 1996). Visual analogue scales have been used to determine perceived levels of a wide range of subjective phenomena, including pain (e.g., Buchholz, Karl, Pomietto, & Lynn, 1998), anxiety (Chappell & Case, 1997), and fatigue (Brunier & Graydon, 1996). An advantage of the visual analogue scale is its simplicity, making it appropriate for people from a variety of ethnic, cultural, and educational backgrounds. The scale avoids the pitfalls of vocabulary and language ability (Flaherty, 1996; Sriwatanakul et al., 1983). This universality of the visual analogue scale and ease of scoring make it an appealing research or clinical tool or both (Hagino et al. 1996).

DESCRIPTION, ADMINISTRATION, AND SCORING.

Traditionally, visual analogue scales have been oriented horizontally; however, some scales using a vertical orientation also have been developed and tested. There is accumulating evidence that a vertical visual analogue scale may be more sensitive for assessing clinical phenomena, particularly as it is easier for subjects to use than a horizontal scale and produces higher scores (Gift, 1989a, 1989b; Gift, Plaut, & Jacox, 1986; Sriwatanakul et al., 1983; Stephenson & Herman, 2000). A more sensitive and easier to use tool certainly would be advantageous with a population as vulnerable and difficult to access as abused women, where any opportunity for detection might lead to an intervention that could improve a woman's life, precipitate a closer assessment of her safety and physical well-being, and possibly save her life.

To produce a vertical scale, a 100 mm vertical line without descriptors at intervals is created with a one-inch perpendicular anchor on each end

(Cline et al., 1992; Gift, 1989a; Guyatt, Townsend, Berman, & Keller 1987; Joyce, Zutshi, Hrubes, & Mason, 1975; Sriwatanakul et al., 1983). As with the horizontal scale, verbal anchors of extremes are created. The subjects, after being instructed on how to use the scale, place a mark on it corresponding to their feelings. The verbal anchors guide their appraisal. Measurement of response on a visual analogue scale is a two-step process. After the subject marks the scale, the researcher must measure the location of the response on the continuum, a source of error if not carefully performed (Flaherty, 1996; Hagino et al., 1996). Cline and colleagues (1992) described a scoring technique for the visual analogue scale by positioning a transparency with a 100 mm vertical line with millimeter markings over the subject's marked scale. The millimeter measurement corresponding to the subject's mark is recorded as the score for that scale. The vertical scale should be viewed vertically when scoring it to assure accurate measurement (Dixon & Bird, 1981).

Testing of Visual Analogue Scales

RELIABILITY

Reliability of visual analogue scales has been most often demonstrated using the test-retest method (Luria, 1975; Revill, Robinson, Rosen, & Hogg, 1976). For the Appraisal of Violent Situation scales, we did not expect test-retest reliability to be stable for women's appraisals of changing violent situations. Furthermore, Nunnally and Bernstein (1994) observed that retesting often is done close to the time of the first administration, which may result in correlation between tests that is spuriously high. These authors recommended not using retest methods unless there was little likelihood that subjects would be able to remember their previous responses. Internal-consistency reliability, often important in instrument development, was not relevant for the Appraisal of Violent Situation scales, as Dutton (1992) designed the scales to function as separate and independent items.

VALIDITY.

Concurrent validity commonly is used in the testing of visual analogue scales (Gift, 1989a; Lynn-McHale et al., 1997). Downie and colleagues (1978) and Gift (1989b) reported good correlation between vertical and horizontal versions of visual analogue scales administered concurrently. Construct validity can be assessed for a visual analogue scale by administering another instrument designed to measure the same phenomenon at the same time in order to measure the correlations between the two measures (Cella & Perry, 1986; Choiniere & Amsel, 1996; Chok, 1998; Gift, 1989b.)

PROCEDURES

To test the concurrent and construct validity of the three vertical Appraisal of Violent Situation scales, we recruited 64 women as part of the larger study of abuse during pregnancy. The study sites were located in the Northeastern part of the United States in a large city and several smaller cities and towns in the greater metropolitan area. We chose these sites for their diversity in socioeconomic and cultural characteristics of the women served. Prenatal services in large teaching institutions and community hospitals, community health centers, and four centers of a large managed care organization composed the 13 study sites. We received human subjects approval from the institutional review boards of all study sites before we collected any data.

All women registering for prenatal care at 13 study sites over the data collection period of 3 years were included in the study. Clinicians in the 13 prenatal care settings screened the women with the Abuse Assessment Screen (Parker, Ulrich, & the Nursing Research Consortium on Violence and Abuse, 1990; Parker & McFarlane, 1991). Women screening positive for violence on this screening tool were invited to participate in the interview portion of the study.

After careful informed consent, we interviewed the 64 women in private settings at the study sites, using a structured interview guide that included the Severity of Violence Against Women Scale (Marshall, 1992), the three vertically re oriented Appraisal of Violent Situation scales (Dutton, 1992; see Figure 2), and a demographic tool we had created for the study. We offered the women emotional support and referral information as needed. Women received their choice of a small cash gift or a baby toy for their participation. Data were protected carefully and stored in locked files only accessible to our research team. No identifiers were stored with these data.

The mean age of the subsample of 64 women agreeing to be interviewed was 24.9 years (range 17–40). Only 8% were married, 14% were unmarried and living with a partner, and the remaining 78% were single, separated, or divorced. Mean educational level was 12 years (range 7–19). The sample was ethnically diverse: European American 31%, Latina 20%, African American 12.5%, Asian 5%, mixed background 15.6%, and other 15.6%. Most women were paying for prenatal care either with public health insurance (Medicaid, MassHealth) or self-pay. Only 9.4% had private insurance. Thirty-four percent of the women were expecting their first child.

TESTING THE VERTICAL APPRAISAL OF VIOLENT SITUATION SCALES

To answer the research questions about the convergent and construct validity of the three vertical Appraisal of Violent Situation scales, we invited a

How severe would you rate the violence which has occurred toward you by your partner/spouse?



How able by any means do you see yourself being able to stop the violence against you by your partner/spouse in the future?



How likely do you believe that the violence between you and your partner/spouse might lead to serious physical harm or possible death for you?



FIGURE 2 Appraisal of violent situations scales. Dutton, M. A. (1992). Appraisal of violent situation. In M. A. Dutton, *Empowering and healing the battered woman* (p. 167). New York: Springer Publishing Co., Inc. Used by permission.

subsample of 26 of the 64 women whom we interviewed to complete both the three vertical and the original three horizontal scales. We then compared the scores on the vertically adapted and original horizontal versions of the three Appraisal of Violence Situation scales using the product-moment correlation coefficient (Pearson's r). During the interviews, all 64 women had completed the Severity of Violence Against Women Scale and the vertically adapted Appraisal of Violent Situation scales. We then compared the women's scores on the Severity of Violence Against Women Scale and the vertical Appraisal of Violent Situation scales using Pearson's r .

Correlations were calculated using both the unweighted scores of the two subscales of the Severity of Violence Against Women Scales, and the weighted severity scores Marshall (1992), developed from community

TABLE 1 Correlations Between Three Original (Horizontal) and Three Adapted (Vertical) Appraisal of Violent Situations Scales (*p* Values)

Horizontal scales	Vertical scales		
	1 How severe is violence	2 How able to stop or control violence	3 Dangerousness of violence
1	0.906 (.000)		
2		0.680 (.000)	
3			0.743 (.000)

N = 26.

women's appraisals of the severity of each of the 46 items on this instrument, as described earlier.

RESULTS

Concurrent Validity

Correlations between the women's scores ($n = 26$) on horizontal and vertical versions of the three scales ranged from a low of 0.68 to a high of 0.91. All correlations were significant at a probability level of less than .001 (see Table 1), providing support for the concurrent validity of the vertical versions.

Construct Validity

We examined construct validity using the Appraisal of Violent Situation scales and the women's ($N = 64$) scores on the Marshall Severity of Violence Against Women Scale, administered concurrently. Only scale one of the Appraisal of Violent Situation scales measuring severity of violence correlated significantly with the women's scores on the Severity of Violence Against Women Scale. Thus, the construct validity of the Severity of Violence Scale was supported by a modest correlation with the Marshall scale, but the construct validity of the danger and control Appraisal of Violent Situation Scales was not supported. All correlations except that between the unweighted "threatened" severity subscale and the Severity of Violence Against Women measure were statistically significant (see Table 2).

DISCUSSION

The vertical Appraisal of Violent Situation scales showed adequate concurrent validity with the horizontal versions originally developed by Dutton (1992). Only the Appraisal of Violence scale measuring women's perceptions

TABLE 2 Correlations Between Three Appraisal of Violent Situation (AVS) Scales and Threatened and Actual Violence Dimensions of Severity of Violence Against Women Scales (SVAWS), (*p* Values)

SVAWS dimension	AVS1: How severe	AVS2: Ability to stop abuse	AVS3: How dangerous
Threatened violence	0.307 (.014)	0.108 (.396)	0.145 (.253)
Actual violence	0.389 (.001)	0.071 (.577)	0.197 (.165)
Threatened violence (weighted)	0.325 (.009)	0.100 (.431)	0.165 (.194)
Actual violence (weighted)	0.391 (.001)	0.063 (.621)	0.207 (.101)

N = 64.

of severity of violence demonstrated construct validity when compared with Marshall's Severity of Violence Against Women Scale. The other two visual analogue scales (perceived controllability of violence and danger of violence, however, did not correlate significantly with the Marshall (1992) scale. The shortcomings in construct validity of the two Appraisal of Violent Situation scales (perceived danger and controllability) may point to a reemphasis on the discrepancies between individual appraisals of violence and factual recollection of events. A partner's violent behavior might be unrelated to the woman's perception of its relative danger or her ability to escape or control it.

As noted by Campbell and colleagues (2003), approximately one-half of the 456 women who were killed or almost killed by a husband, boyfriend, or former-husband in a recent national study accurately perceived their risk of being killed by their abusive partner. Further, women were unlikely to overestimate their lethality risk and tended to underestimate it. In a qualitative analysis of interviews with women survivors of intimate partner violence, Nicolaidis and colleagues (2003) supported these findings. These researchers noted that half of the women who survived a partner's attempt to kill them did not recognize that their lives were in danger. Thus, Campbell (1995) advocated that providers use a lethality assessment measure such as the Danger Assessment (Campbell, 2004) in addition to eliciting abused women's perceptions of danger when counseling victims about lethality risk. Similarly, Heckert and Gondolf (2004) found that women's perception of risk, combined with the Danger Assessment, was a better predictor of reassault than women's perception of risk by itself.

While Weisz, Tolman, and Saunders (2000) found that survivors' predictions of reassault were strongly associated with subsequent severe violence, a small percentage of women who rated the risk of reabuse as small in that study did experience severe abuse. Weisz and colleagues hypothesized that believing oneself to be safe when in danger may be a means of coping with high levels of fear or may be a response to an abuser's

attempts to disguise efforts to do future harm. Nicolaidis and colleagues (2003) reported that the data derived from the qualitative interviews in their study indicated women were more focused on relationship problems related to money, drugs, infidelity, or alcohol than on the risks to themselves from the violence they were experiencing. The lack of correlation between the perceived dangerousness and controllability scales and the Marshall (1992) scale appears consistent with the above analyses of women's failure to accurately perceive their risk. In other words, while women's perceptions of violence severity certainly have merit and must be considered in risk assessment, their perceptions of the danger/risk of such violence and their ability to control that risk may be influenced by factors that make those perceptions less credible than their perceptions of severity.

While it appears plausible that there is a shared construct dimension between women's perceptions of severity and risk (danger), this may not be the case for the construct of control (ability to stop violence). An instrument designed to measure women's sense of power or powerlessness in the face of violence may be a better comparative choice than the Marshall scale for determining the construct validity of the Appraisal of Violent Situation scale eliciting the woman's perception of her ability to control the violence.

In adapting the three visual analogue scales, we preserved congruence between the anchors on the horizontal and vertical versions. That is, the anchors on the left end of each scale in the horizontal versions became the bottom anchors on the vertical versions. We also preserved the underscoring of words from the original three scales. The anchors for the second scale could be reversed, placing all three negative descriptors at the top of the scales, rather than two at the top (severe and very likely) and one at the bottom (little or no ability). In future versions, we might eliminate the underscoring of words or alter it to underscore the words correlating with the anchors. For example, in scale one, the word severe could be underscored, as could the word likely for scale three, removing the underscoring of other words for each of these scales. The inconsistency of the underscoring might explain the discrepant correlations between women's responses on the three visual analogue scales and Marshall's (1992) Severity of Violence Against Women Scale.

Although the samples for these analyses were small, the findings from our exploration suggest that the vertical Appraisal of Violent Situation Severity scales are useful for collecting data on women's appraisals of the violence that is permeating their lives. Women's subjective appraisals of risk, however, should be considered in conjunction with objective measures of danger. More testing is needed with larger samples to explore both concurrent and construct validity of the three scales. Researchers might explore the predictive validity of the Appraisal of Violent Situation scales with the Danger Assessment (Campbell, 2004).

For the purpose of clinical screening for abuse and intervention, women's perceptions of violence severity are important and should be assessed along with the frequency or duration of the violence and tools to determine risk such as the Danger Assessment (Campbell, 2004), as women's perceptions of the severity and danger of violence may underplay their risk for serious consequences (Campbell et al., 2003; McFarlane, Parker, & Soeken, 1995; Stuart & Campbell, 1989).

If a woman perceives even rare or noninjurious violence as severe, she may be unable to eat, sleep, or be effective in her roles of parent or employee. The health effects of violence extend beyond physical injury to stress-related illness and substance abuse (Dutton, 1992; Walker, 1999; Woods & Campbell, 1993), and perceptions of severity are a useful reflection of stress related to violence. For these reasons, eliciting women's appraisals of intimate partner violence is critical for both clinical and research applications.

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