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Culturally Competent Intimate Partner Violence Risk Assessment:  
Adapting the Danger Assessment for Immigrant Women

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## Abstract

Despite the growing population of immigrant women in the U.S. and their greater vulnerability to intimate partner violence (IPV), there are no culturally competent instruments to assess the risk of homicide and future violence among abused immigrant women. The current study modifies the Danger Assessment (DA), a risk assessment instrument aimed at identifying victims of IPV who are at risk for lethal violence by an intimate or ex-intimate partner, for use with immigrant women. A secondary analysis was conducted with 148 immigrant women who participated in a longitudinal risk assessment study. The 20 original DA items and an additional 12 risk items were tested using relative risk ratios for their association with any or severe IPV at six-month follow-up. Predictive validity was tested with the Receiver Operating Characteristic (ROC) curve. Results indicated support for a revised Danger Assessment for Immigrant women (DA-I) consisting of 26 items. The DA-I predicts any and severe IPV at nine-month follow-up significantly better than the original DA and women's own predictions of risk. The DA-I is a culturally competent risk assessment that can be used to assess the risk of re-assault and severe IPV in order to assist immigrant women with safety planning.

## **Intimate Partner Violence & Homicide**

Intimate partner violence (IPV) is a serious social problem affecting the health, mental health and welfare of women (Bacchus, Mezey & Bewley, 2003; Coker et al., 2002; Hazen et al., 2008). In the U.S., women's lifetime prevalence of IPV is estimated to be 25%; IPV has been defined as physical violence and/or sexual violence or severe physical violence (Black et al., 2011; Breiding, Black, & Ryan, 2005; Tjaden & Thoennes, 2000). In 2003, this translated into 5.3 million incidents of IPV against women (CDC, 2003). Of all violent crimes committed against women in 2010, 22% were perpetrated by a current or former intimate partner (Truman, 2011). Women who experience severe IPV (e.g., being "beaten up," assaulted with a weapon) are at greater risk for poor health and mental health outcomes, and intimate partner homicide (Campbell et al., 2003) or femicide (Campbell & Runyon, 1998; Russell, 1992, 2001).

In 2007, 1640 women were killed by an intimate partner (Catalano et al., 2009). Intimate partner homicides comprise 45% of all femicides; of women killed by men that they know, 63% were killed by a spouse, ex-spouse or current intimate partner (Catalano et al., 2009; VPC, 2011). Of all homicides with male victims, 5% are committed by an intimate partner; since 1993, women have comprised approximately 70% of all victims killed by an intimate (Catalano et al., 2009). Between 65-80% of intimate partner femicide victims were previously abused by the partner who killed them, making this the single largest risk factor for intimate partner femicide (Sharps et al., 2001; Campbell et al., 2003b; Campbell et al., 2007; Moracco, Runyon & Butts, 1998; Pataki, 1997). Social workers are confronted with victims of IPV in all areas of practice (Danis, 2003), and there is a critical need to identify those at the greatest risk for severe and lethal violence to develop and implement interventions aimed at reducing associated health and mental health problems and preventing intimate partner femicide among this population.

Immigration to the U.S. is rising; 36.7 million people (12% of the population) living in the U.S. are foreign born (US Census, 2009). An emerging literature suggests that this growing population of women may be more vulnerable to IPV and intimate partner femicide than non-immigrant women (Erez, Adelman & Gregory, 2009; Raj & Silverman, 2002). For example, in New York City, from 1990-1999, foreign born women made up over half of all intimate partner femicide victims and were nearly two times more likely to be killed by an intimate partner than a non-intimate (Frye, Hosein, Waltermaurer, Blaney & Wilt, 2005). A number of factors unique to immigrants, including social isolation, traditional and cultural attitudes and norms about gender roles and violence, poor socioeconomic status, and lack of divorce or employment options for women, have been indicated to elevate this populations' vulnerability to IPV and severe IPV (Counts, Brown & Campbell, 1999). Current risk assessments, such as the Danger Assessment (DA), do not include immigrant-specific risk factors. In order to engage in culturally competent practice, there is a particular need for social workers and advocates to identify immigrant women in dangerous intimate partner relationships through the use of risk assessment instruments that have been modified to identify as many of their particular risks as possible.

### **Risk Factors for Homicide in Intimate Relationships**

The DA is the only IPV risk assessment instrument specifically designed to identify women at risk for intimate partner homicide. It is intended to empower women in abusive relationships to make self-care decisions and, as such, is generally administered by an advocate, social worker, health care or criminal justice practitioner in a victim services setting (Messing & Thaller, in press). The DA includes the use of a calendar to review abusive incidents over the past 12 months and a 20-item instrument scored by the assessor. The DA has been shown to be predictive of intimate partner reassault, severe reassault and femicide (Campbell et al., 2003;

Campbell, O'Sullivan, Roehl & Webster, 2005; Campbell, Webster & Glass, 2009; Goodman, Dutton & Bennett, 2000; Heckert & Gondolf, 2004; Weisz, Tolman & Saunders, 2000).

The questions on the DA are consistent with risk factors identified through research as predictive of intimate partner homicide. Recent estrangement, including physical and/or legal separation, has consistently been identified as a risk factor for homicide (Dawson & Gartner, 1998; Websdale, 1999; Wilson & Daly, 1993; Wilson, Johnson & Daly, 1995). Research has demonstrated that 70-90% of women were stalked prior to a homicide or attempted homicide by their intimate partner (McFarlane et al., 1999). A perpetrator's threats to kill his intimate partner are associated with a 2.6 times increased risk of intimate partner homicide (Campbell et al., 2003). Women who have been strangled by an intimate partner are approximately 7 times more likely to be killed by their partner (Glass et al., 2008). Women whose abusive partner has access to a firearm are at 5 times greater risk for intimate partner homicide (Campbell et al., 2003; Campbell et al., 2007). Approximately 50% of men who killed or attempted to kill their partners were described as problem drinkers in the year before the incident (Sharps, Campbell, Campbell, Gary & Webster, 2003). Women who are abused during pregnancy are approximately 3 times more likely to experience serious injury and intimate partner homicide (McFarlane, Campbell, Sharps & Watson, 2002). In addition, forced sex, controlling behavior and sexual jealousy have been associated with risk for homicide (Campbell & Soeken, 1999; Campbell et al., 2003).

### **Immigrant Women's Unique Risk Factors**

Although immigrant women are a diverse group in terms of cultural background, immigration status, length of time in the U.S., and acculturation experiences, there are also shared experiences and similar risks for IPV based on the process of immigration and the structural and institutional inequalities faced post-migration (Erez et al., 2009; Raj & Silverman,

2002). These similarities may serve to make it more difficult for early intervention and/or contribute to the control exercised by batterers (Menjívar & Salcido, 2002). Previous research has identified immigrant women's risks for IPV in studies with women from diverse cultural backgrounds (e.g., Latin, Caribbean, Asian, Eastern European) and has identified the ways in which differences in immigration status and acculturation may impact IPV risk.

Immigration disrupts familial and social support networks, which may lead to greater dependence on husbands, particularly if women's language skills are not strong (Bauer, Rodriguez, Szkupinski & Flores-Ortiz, 2000; Bhuyan et al., 2005; Denham, Frasier & Hooten, 2007; Sullivan, Senturia, Negash, Shiu-Thornton & Giday, 2005) or when visa status is dependent upon a spouse or does not allow engagement in paid employment (Crandall, Senturia, Sullivan & Shiu-Thornton, 2005; Sullivan et al., 2005). This leads to an inability to form independent social networks or access services (Bauer et al., 2000; Sullivan et al., 2005). Threats of deportation, not filing appropriate paperwork, tearing up or otherwise destroying identification and immigration papers, losing custody of children due to deportation, and threats to inform immigration authorities for real or imagined infractions are all methods of isolation which may be used against women whose immigration status is uncertain or dependent upon their husband (Abraham, 2000; Crandall et al., 2005; Erez, Adelman & Gregory, 2009; Erez & Hartley, 2003).

The traditional and cultural norms of immigrants may prevent women from attending school, learning the language of their new country, working outside the home, or creating social networks (Abraham, 2000; Bhuyan et al., 2005; Dasgupta & Warrier, 1996; Sullivan et al., 2005). Beliefs in male domination are more common among immigrant populations and have been found to be positively and significantly associated with IPV (Adam & Schewe, 2007), and male dominant marriages have been found to have the highest level of violence against women

(Kim & Sung, 2000). Similarly, other research has found that patriarchal beliefs about rigid gender roles permit men to be violent against their wives across several disparate immigrant groups (Bhuyan et al., 2005; Crandall et al., 2005; Shiu-Thornton, Senturia & Sullivan, 2005; Sullivan et al., 2005). Finally, as foreigners in a new country, men's social status shifts downward and they may face unemployment or underemployment; violence may be used as a way for men to exercise control when they are unable to exercise control outside of the home (Erez, Adelman & Gregory, 2009; Tran & Des Jardins, 2000). Immigrant women's employment outside the home in her new country, when combined with a spouse's unemployment, has also been found to predict physical IPV (Morash, Bui, Zhang & Holtfreter, 2007).

### **Cultural Competence**

There are three main components of cultural competency for helping professionals: awareness of one's own values, beliefs, and biases; knowledge of clients' values, beliefs and cultural practices; and the skills to use culturally appropriate and sensitive intervention strategies (Sue & Sue, 2003). An important part of the skills needed to practice in a culturally competent manner includes the development and use of culturally competent risk assessment tools; however, there are currently no risk assessment instruments for identifying immigrant women at risk for severe and lethal IPV despite the evidence that this population is at elevated risk for experiencing IPV and femicide. In order to take into account the specific vulnerabilities of immigrant women, there is a need to adapt risk assessments for use with this population. Thus, the purpose of this study was to adapt the original 20-item DA for use with immigrant women and test the effectiveness of the revised instrument in predicting reassault and severe IPV among immigrant women from diverse cultural backgrounds.

### **Methods**

## Data Collection

This study used data collected for the National Institute of Justice funded (NIJ #2000WTVX0011) Risk Assessment Validation (RAVE) Study (Campbell et al., 2005). The study was approved by the IRB of Johns Hopkins University. Data were collected through bilingual (Spanish/English) structured telephone (32%) or in-person (68%) interviews in New York City and Los Angeles County. Participants were recruited at family courts, domestic violence shelters and community offices, public hospitals, and from DV calls to the police. Women were eligible for inclusion in the study if they were currently experiencing IPV (operationalized as reporting at least one experience of IPV in the previous 6 months). Eligible participants completed a baseline interview and were re-contacted to participate in a follow-up telephone interview 6-12 months later primarily to determine reassault.

Interviews were conducted with 1307 women at baseline (T1); 59.83% of T1 participants were located for follow-up (T2) after an average of 9 months. Participants were selected for inclusion in this analysis if they completed the T2 interview, were administered the DA at T1, and reported being born outside of the continental U.S. Of those participating in the T2 interview (n=782), 51.2% (n=400) were administered the DA at T1; of those, 37% reported that they were not born in the continental U.S. resulting in a final sample for this analysis of 148. There was no difference in attrition between foreign born and U.S. born participants.

## Measures

**Dependent variables: Intimate Partner Violence.** IPV was assessed at T1 and T2 using an adapted version of the revised Conflict Tactics Scale (CTS-2; Straus, Hamby, Boney-McCoy & Sugarman, 1996). The dependent variables in this analysis were: (1) 'any IPV': the participant experienced any physical/sexual IPV between the T1 and T2 interviews (0=no, 1=yes) and (2)

‘severe IPV’: the participant experienced severe physical/sexual IPV and/or near lethal violence between the T1 and T2 interviews (0=no, 1=yes). Severe IPV consists of: your partner (1) used force to make you have sex, (2) used a knife or gun on you, (3) punched you or hit you with something that could hurt, (4) choked you, (5) beat you up, (6) burned or scalded you on purpose, (7) kicked you, (8) nearly killed you, (9) tried to kill you.

**Danger Assessment.** The DA (Campbell et al., 2009) was used to assess participant’s risk of homicide by an intimate partner in the RAVE study. The DA consists of 20 items with yes/no response options. Nineteen of these questions are weighted (1-4) and summed providing an overall score (0-37) where a higher score indicates higher risk of intimate partner homicide.

**Additional Risk Items.** Items from the original questionnaire were assessed for their ability to examine the risk factors for immigrant women that have been previously identified in the literature; these include: (1) social isolation, (2) marginalization of immigrant communities, (3) acculturation level (4) gender norms/patriarchal beliefs, and (5) downward/differential mobility. Two of these items (gender norms: “Does he get upset about how you do housework or take care of things?” and social isolation “Has he tried to prevent you from going to school, getting job training, or learning English?”) were included in the original questionnaire as possible risk factors. Two of these items (marginalization of the immigrant community, social isolation: “I feel ashamed of the things he does to me” and “I hide the truth from others because I am afraid”) are from the Women’s Experience of Battering Scale (WEB), which was used to measure emotional abuse in the original questionnaire (Smith, Earp & DeVellis, 1995). One item (social isolation: “He threatened to report you to child protective services, immigration, or other authorities”) is from the HARASS Scale used to measure harassment and stalking in the original questionnaire (Sheridan, 1998). The remaining seven items are questions asked during the

demographic portion of the interview (social isolation, gender norms: the participant is married, the participant does not have children in the home, the participant and abuser do not have children in common; downward/differential mobility, social isolation: the participant is not employed full/part time, the participant has more than a High School education), when obtaining information about the abuser (perpetrator acculturation: he was not born outside of the U.S.), or based on the interview format (victim acculturation: interview was conducted in English).

**Self-Perceived Risk.** Participants were asked to rate the likelihood (on a scale of 0-10, with 0 being no chance and 10 being sure to happen) that their partner would (1) abuse or (2) seriously hurt them in the next year (Weisz, Tolman & Saunders, 2000). These questions were asked at T1, after the participant had answered all other interview questions.

**Participant & Relationship Characteristics.** Participants were asked questions regarding their personal and relationship characteristics, including age, race/ethnicity, where they were born, employment status, education, and marital status. Questions about the participant's children (number and gender of children, number of children with their partner) and partner (race/ethnicity, age, where he was born) were also asked. These variables are utilized to describe the sample, and some were included as additional risk items.

## **Analysis**

All analyses were conducted using Stata/SE 10.1. The specific aims of this analysis were to: (1) examine the relationship between potential risk factors and the outcomes of any IPV and severe IPV for immigrant women, (2) to develop a risk assessment instrument specifically for this population, and (3) to test the predictive validity of the developed risk assessment. In order to achieve the first specific aim, Relative Risk Ratios (RRRs) were used to examine the bivariate relationships between all potential risk items and the outcomes of any IPV and severe IPV at T2.

RRRs provide an estimate of the risk that a participant faces of experiencing an outcome given an affirmative response to a particular risk factor; a RRR of one would indicate that a participant faces no increased risk, an RRR below one would indicate a decreased risk, and an RRR above one would indicate an increased risk.

The RRRs provide information about the relative strength of various risk factors, and how heavily they should be weighted when creating the risk assessment (e.g., RRR=2 indicates that a participant is twice as likely to experience the outcome given the risk factor). In order to meet the second aim of this analysis, risk factors were weighted based on the RRRs. The relationship between a risk factor and the outcome of severe IPV was considered more important than the relationship between a risk factor and any IPV. Thus, beginning with the outcome of severe IPV, based on the RRRs, weights were assigned to the risk factors using the following formula developed by Glass and colleagues (2008): items with a RRR below 1.33 were initially given a weight of 0 (not included in the risk model), items with a RRR of 1.33-1.79 were initially given a weight of 1, items with a RRR of 1.80-2.79 were initially given a weight of 2, items with a RRR of 2.80-3.79 were initially given a weight of 3, and items with a RRR of 3.80 and higher were initially given a weight of 4. Based on these classifications, when the RRRs for the outcome any IPV were different than the RRR for severe IPV, alternative weights were examined and the risk model with the greatest predictive validity for both outcomes was retained. When conflict occurred, the risk model with the greatest predictive validity for severe IPV was retained. Finally, based on the 95% confidence intervals for the RRRs, an iterative process was used to examine the risk model with other possible weighting options and, as described above, the risk model with the greatest predictive validity was retained. Because a partner's suicidal threats/attempts is a risk factor for homicide-suicide (Koziol-McLain et al.,

2006), this was deemed important to retain in the final risk assessment although it did not significantly impact predictive validity. Finally, a question was included from the original DA that assesses the survivor's suicidality because of the strong association of IPV and suicidality among victims of IPV in this sample and others (this question is not included in the scoring; Cavanaugh, Messing, Del-Colle, O'Sullivan & Campbell, 2011).

In order to achieve the final specific aim of this analysis, the Receiver Operating Characteristic (ROC) was utilized to examine the predictive validity of the developed risk assessment. The ROC is a graph that plots sensitivity versus 1-specificity, thereby taking into account both the sensitivity and the specificity of an instrument (Rice & Harris, 1995). The area of the graph that lies under the ROC curve – that is, the area under the curve (AUC) – quantifies the predictive accuracy of a risk assessment instrument on a scale of 0-1.0 (Douglas et al., 2000; Rice & Harris, 1995). An AUC of 0 indicates that the instrument did not predict any cases accurately, .50 indicates that the instrument predicts cases no better than chance, and 1.0 would indicate that every case was predicted with perfect accuracy (Douglas et al., 2000). The AUC is interpreted as the probability that a randomly selected case would have a higher score on the risk assessment instrument than a randomly selected non-case; thus, an AUC of .65 would indicate that there is a 65% chance that a randomly selected case would have a higher score on the risk assessment instrument than a randomly selected non-case (Douglas et al., 2000; Rice & Harris, 1995). Use of the ROC curve for examining predictive validity has several advantages important to this analysis. The predictive validity of the newly created risk assessment can be compared against the original DA and participants' assessment of their own risk utilizing chi-square analyses. In addition, the ROC is less dependent upon the base rate (the number of cases in a sample) than traditional methods of measuring predictive validity and, in fact, has been

demonstrated to remain stable as the base rate changes (Rice & Harris, 1995). This is important as the proportion of participants experiencing severe IPV at follow up is relatively low (20.95%).

Of the 148 participants, 22 (14.9%) were missing data on pertinent variables. Conditional mean imputation was used to insert missing values based on rounded predicted probabilities. Logistic regression was used to determine the likelihood that a particular person in the sample would have answered affirmatively to experiencing a particular risk factor based on the following non-missing data: (1) the average of known risk factors, (2) other included risk factors, and (3) individual and relationship characteristics. These models predicted known cases with an average of 78.51% accuracy (range: 66.67%-91.03%). This technique is not perfect nor entirely free from bias (Little & Rubin, 1987), but improves upon listwise deletion and unconditional mean imputation as strategies for handling missing values (Schafer & Schenker, 2000).

## **Results**

### **Participant & Relationship Characteristics**

The mean age of participants included in this sample is 34.51 (SD=8.42). As shown in Table 1, the majority of the foreign born women reported that they were Latina (66.89%), two-thirds of whom were born in the Caribbean or Mexico. Approximately half of the participants (48.65%) were employed either part-time or full-time, and more than half of the participants had a high school diploma or greater (56.75%). The majority of participants (60.14%) were married, and very few participants (12.84%) did not have children living with them at home.

### **Participant Experiences of IPV**

Experiences of IPV at T1 and T2 are reported in Table 2. Verbal abuse was most common with over 90% of women reporting that they experienced some form of verbal abuse at T1 and over half of participants reporting that they experienced some form of verbal abuse at T2.

Non-severe IPV was experienced by 94.59% (n=140) of participants at T1 and 31.08% (n=46) of participants at T2. Severe IPV was experienced by 83.78% (n=124) of participants at T1 and 20.95% (n=31) of participants at T2. Of the participants at T2 who reported experiencing any IPV, 67.39% reported severe IPV.

Table 3 shows the relative risk ratios used to test the bivariate associations of the 20 original DA items and the additional 12 risk items with any and severe IPV at T2. RRRs indicated that 26-items be retained for the Danger Assessment for Immigrant Women (DA-I; see Figure 1); 15 items retained from the original DA and 11 additional risk items. Scores on the DA-I can range from 0-53; actual scores for this sample ranged from 1-47 ( $M=23.53$ ,  $SD=9.11$ ).

### **Predictive Validity**

The predictive validity of the DA-I was assessed by plotting ROC curves, and chi-square analyses were utilized to test the differences between the DA-I curve, the DA curve, and the curves for survivors' perceptions of risk. For prediction of severe IPV at T2, the AUC for the DA-I weighted score is 0.8522. The AUC of the DA-I is significantly larger ( $\chi^2(1)=15.40$ ,  $p<.0001$ ) than the AUC of the weighted DA score (AUC=0.6920). The AUC of the DA-I is also significantly larger than the AUC of survivors' perception of the likelihood of IPV in the next year (AUC=0.6375;  $\chi^2(1)=17.78$ ,  $p<.00005$ ) and the AUC of survivors' perception of the likelihood of IPV injury in the next year (AUC=0.6535;  $\chi^2(1)=19.85$ ,  $p<.00005$ ).

When examining the prediction of any IPV at T2, the DA-I weighted score has an AUC of 0.7745. For any IPV, the AUC of the DA-I is significantly larger ( $\chi^2(1)=5.17$ ,  $p<.05$ ) than the AUC of the weighted DA score (AUC=0.6868). The AUC of the DA-I is also significantly larger than the AUC of survivors' perception of the likelihood of IPV in the next year (AUC=0.6246;

$\chi^2(1)=9.25, p<.005$ ) and the AUC of survivors' perception of the likelihood of IPV injury in the next year (AUC=0.6390;  $\chi^2(1)=8.73, p<.005$ ).

### **Discussion**

Despite the unique factors that have been found to influence IPV among this population, this is the first study to create and test an IPV risk assessment instrument for immigrant women. The 26 item DA-I (which includes 15 items from the original DA and 11 additional risk items; see Table 3) predicts risk for severe violence and any reassault for immigrant women with significantly greater accuracy than the original DA and women's predictions of their own risk of future violence and injury. This study provides further support for work that has shown that immigrant women who experience IPV have specific vulnerabilities based on their immigration status. Five risk factors from the original DA were not included in the final DA-I, indicating that the simple addition of risk factors for immigrant women is not sufficient; rather, the conception of risk for this population may be different than for non-immigrant women.

Several of the risk factors in the original DA were not related to risk among the immigrant women in this sample. Particularly, few abusive partners in this sample owned a firearm ( $n=8$ ) or used drugs ( $n=22$ ), which may at least partially explain the lack of association between future violence and these previously established risk factors. The risk factor in the original DA regarding controlling behaviors, also not included in the DA-I, may have been subsumed by more immigrant-specific control and isolation tactics. Similarly, perpetrator unemployment was not supported for inclusion in the DA-I; however, given previous research regarding employment disparities and downward mobilization among immigrant men (Erez, Adelman & Gregory, 2009; Morash et al., 2007; Tran & Des Jardins, 2000), this finding deserves further research. Finally, recent separation does not appear to be a risk factor among immigrant

women in this sample; however, this may have been an artifact of this sample of abused women since the majority was separated from their partners at T2. Given previous research indicating that estrangement is a risk factor for homicide (Dawson & Gartner, 1998; Websdale, 1999; Wilson & Daly, 1993; Wilson et al., 1995) further research should examine the potentially complex relationships among separation, IPV and femicide for immigrant abused women.

Perpetrators who were U.S. born were more likely to re-assault their intimate partners, consistent with some previous research showing that more acculturated men are more violent in intimate relationships (Jasinski, 1998). Women who preferred to answer questions in English, also demonstrating greater acculturation, were more likely to experience re-assault. This may also indicate less isolation and/or a greater ability to challenge traditional gender roles. In this sample, risk is strongly related to childbearing; in addition to the original DA item of having stepchildren in the home, not having children in common with their partner and having no children in the home are strongly related to risk of re-assault, perhaps because of the values of familismo and machismo associated with Latina populations (Humphreys & Campbell, 2010).

The small sample size limits the analysis, as well as our ability to generalize these findings. Specifically, a larger sample would have allowed for creation and testing of the model with different samples, which would have increased the reliability and external validity of the findings. It is important for future research to examine the consistency of these risk factors for any and severe reassault across samples, and to examine the predictive validity of the DA-I for intimate partner femicide. In addition to the small sample size, 40% of participants originally included in the research study were not able to be located at T2. These participants may have had different experiences of IPV reassault and severe reassault than those included in the follow-up

interviews. Finally, imputing variables for participants in this study allowed us to increase the sample size, but it must be noted that imputation will not always provide accurate data.

Previous research with immigrant women experiencing IPV has largely been focused on specific immigrant groups. This research takes the view that immigrant women's social location as "immigrant" brings with it many shared structural inequalities and vulnerabilities that must be considered in relation to their risk of reassault, including social isolation, the marginalization of immigrant communities, traditional attitudes regarding gender roles, lack of divorce or employment options for women, and the downward social mobility of immigrant men (Counts, Brown & Campbell, 1999; Erez, Adelman & Gregory, 2009). Although in the original analysis of the RAVE data, support for the DA was not significantly different for Latina women than for the women of other ethnic backgrounds, because of the large proportion of Latina women in this sample, the DA-I should also be tested on a more diverse immigrant sample to ensure that the risk factors identified are due to immigration status and not ethnicity. Despite these limitations, this risk assessment developed specifically for immigrant women may help practitioners, and immigrant women themselves, assess their risk of homicide and re-assault in violent relationships more accurately than use of the original DA or women's own perceptions of risk.

### **Implications for Social Work Practice**

Similar to the original DA, social workers should use the DA-I to assist survivors of IPV with safety planning, consistent with the social work value of self-determination, based on the tenets of women's empowerment and autonomy (Campbell, 2001). In the context of assessment and intervention, the DA-I should be utilized to facilitate a dialogue between a survivor and a practitioner with a focus on providing information about risk, strategizing responses to violence, and making informed decisions about safety. Like many abused women, immigrant women may

underestimate their own risk of re-assault and especially of lethality or near lethality (Campbell, 2004; Heckert & Gondolf, 2000). Therefore, it is particularly important that social workers consistently conduct victim-centered risk assessment with women in abusive relationships as part of routine assessment practices (Campbell, 2001).

The first step of administering the DA-I, like the original DA, is for the survivor to work with a practitioner to use a calendar to document the severity and frequency of abuse over the past year. This is a consciousness raising exercise that assists in helping women understand the pattern of violence and abuse that they have been experiencing (Campbell, 1986). For women at high risk of homicide, it is important that social workers educate the survivor about her risk, work with her to develop an emergency plan (that includes children if applicable). Social workers must also inform women about the danger of leaving an abusive partner and educate them about strategies for doing so safely, encourage survivors to begin to establish a support network in their community, and refer them to the services offered in their area. For women not at high risk of homicide, it is also important that they are provided with information about risk factors for homicide and how to recognize signs of increased dangerousness in their partner.

By taking into account immigrant women's unique risk factors and experiences of battering, the DA-I provides social service providers with a more culturally competent frame in which to assess risk for homicide; educate women about IPV, safety planning, and future risk; as well as to provide interventions based on specific risk factors. It is important for social workers to be aware that many of the additional risk factors identified by the DA-I, such as isolation and marginalization, may further inhibit immigrant women's ability to seek assistance from police, social service, and health care providers. This is of particular concern as previous research has shown that immigrant women are often reluctant or unable to seek help from these resources

(Erez & Hartley, 2003). Similarly, marginalization of the immigrant community, including experiences of shame about IPV, may act to inhibit reporting and formal help-seeking among this population. Therefore, social workers in all areas of must be vigilant about screening for IPV and recognizing signs of abuse and risk included on the DA-I. Due to fear of negative attention directed toward their community, immigrant women may be more likely to turn to informal helpers within their community (Bui & Morash, 1999; Erez & Hartley, 2003). Therefore, prevention and intervention efforts must focus on community education, particularly in regard to risk factors for repeat and severe violence specific to immigrant women and the impact of IPV on the lives of women and children. When working with immigrant women, risk assessment, education, and intervention must be conducted in a linguistically/culturally appropriate manner.

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# DANGER ASSESSMENT for IMMIGRANT WOMEN

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Several risk factors have been associated with increased risk of violence, particularly severe and/or life threatening violence, among immigrant women in violent relationships. We cannot predict what will happen in your case, but we would like you to be aware of the danger of repeat and severe violence in situations of abuse and for you to see how many of the risk factors apply to your situation.

Using the calendar, please mark the approximate dates during the past year when you were abused by your partner or ex partner. Write on that date how bad the incident was according to the following scale:

1. Slapping, pushing; no injuries and/or lasting pain
2. Punching, kicking; bruises, cuts, and/or continuing pain
3. "Beating up"; severe contusions, burns, broken bones
4. Threat to use weapon; head injury, internal injury, permanent injury
5. Use of weapon; wounds from weapon (If **any** of the descriptions for the higher number apply, use the higher number.)

#	Yes	No	Mark <b>Yes</b> or <b>No</b> for each of the following ("he" or "him" refers to your husband, partner, ex-husband, ex-partner, or whoever is currently physically hurting you.)
1			Do you prefer to answer these questions in English?
2			Has the physical violence increased in severity or frequency over the past year?
3			Has he ever used a weapon against you or threatened you with a lethal weapon? (If yes, was the weapon a gun? ____)
4			Does he threaten to kill you?
5			Has he avoided being arrested for domestic violence?
6			Are you married to him?
7		*	Do you have any children living with you in your home?
8		*	Do you have any children with him?
9			Do you have a child that is not his?
10			Has he ever forced you to have sex when you did not wish to do so?
11			Does he ever try to choke you?
12			Is he an alcoholic or problem drinker?
13			Is he violently and constantly jealous of you? (For instance, does he say "If I can't have you, no one can.")
14			Have you ever been beaten by him while you were pregnant? (If you have never been pregnant by him, check here: ____)
15			Has he ever threatened or tried to commit suicide?
16			Does he threaten to harm your children?
17			Do you believe he is capable of killing you?
18			Does he follow or spy on you, leave threatening notes or messages on voicemail, destroy your property, or call you when you don't want him to?
19			Are you unemployed?
20			Have you attended college, vocational school and/or graduate school?
21			Do you hide the truth from others because you are afraid of him?
22			Does he prevent you from going to school, or getting job training, or learning English?
23			Has he threatened to report you to child protective services, immigration, or other authorities?
24			Do you feel ashamed of the things he does to you?
25			Was your partner born in the U.S.?
26			Have you ever threatened or tried to commit suicide?

\* indicates that a "no" response increases risk.

**Thank you. Please talk to your social worker, advocate, counselor or nurse about what the Danger Assessment means in terms of your situation.**

Table 1. Participant and Relationship Characteristics (n=148)

<b>Variable</b>	<b>n (%)</b>
<b>Race / Ethnicity</b>	
Black	25 (16.89)
Latina / Hispanic	99 (66.89)
European / White	9 (6.08)
Asian	8 (5.41)
Other	7 (4.73)
<b>Country / Region of Origin</b>	
Puerto Rico	8 (5.41)
Mexico	43 (29.05)
Central America	11 (7.43)
South America	26 (17.57)
Caribbean	45 (30.41)
Europe	6 (4.05)
Asia / Middle East	7 (4.73)
Missing	2 (1.35)
<b>Employment Status</b>	
Full time	47 (31.76)
Part time	25 (16.89)
Unemployed	59 (39.86)
Other (e.g., Student, Homemaker)	17 (11.49)
<b>Highest Education</b>	
8 <sup>th</sup> grade or less	33 (22.30)
Some high school	31 (20.95)
High school grad / GED	45 (30.41)
Some college / vocational school	22 (14.86)
College graduate	13 (8.78)
Graduate school	4 (2.70)
<b>Marital Status</b>	
Single	44 (29.73)
Married	89 (60.14)
Separated	6 (4.05)
Divorced	9 (6.08)
<b># of Children in the Home</b>	
0	19 (12.84)
1	29 (19.59)
2	61 (41.22)
3	26 (14.57)
4+	13 (8.79)
<b># of Children in Common w/ Partner</b>	
0	29 (19.59)
1	49 (33.11)
2	44 (29.73)
3	17 (11.49)
4+	9 (6.08)

Table 2. Verbal Abuse and Physical / Sexual Violence at T1 and T2 (n=148)

Type of violence / abuse	Time 1 Interview Yes, n (%) Ever	Time 2 Interview Yes: n (%) Since Last Interview
<b>Verbal Abuse: Has your partner been verbally abusive in the following ways?</b>		
Insulting and swearing at you	138 (93.24)	91 (61.49)
Shouting and yelling at you	139 (93.92)	86 (58.11)
Calling you fat or ugly or a lousy lover	89 (60.14)	51 (34.46)
<b>Non-Severe Physical / Sexual IPV: Your partner....</b>		
Threw something at you that could hurt	71 (47.97)	14 (9.46)
Twisted your arm or hair	93 (62.84)	19 (12.84)
Made you have sex without a condom	66 (44.59)	15 (10.14)
Pushed or shoved you	109 (73.65)	29 (19.59)
Slammed you against a wall	84 (56.76)	11 (7.43)
Insisted on sex when you did not want to	79 (53.38)	24 (16.22)
Grabbed you	118 (79.73)	22 (14.86)
Slapped you	83 (56.08)	14 (9.46)
<b>Severe Physical / Sexual IPV: Your partner...</b>		
Used force to make you have sex	51 (34.46)	16 (10.81)
Used a knife or gun on you	28 (18.92)	4 (2.70)
Punched you/hit you with something that could hurt	88 (59.46)	14 (9.50)
Choked you (Strangulation)	58 (39.19)	14 (9.50)
Beat you up	94 (63.51)	12 (8.11)
Burned or scalded you on purpose	4 (2.70)	1 (0.68)
Kicked you	57 (38.51)	11 (7.43)
Did anything that might have killed you/nearly killed you	50 (33.78)	15 (10.14)
Tried to kill you	31 (21.23)	11 (7.43)

Table 3. Relative Risk Ratios (n=148)

Risk Assessment Items	Yes Response n (%)	Relative Risk Ratios: Any Re-assault	Relative Risk Ratios: Severe Re-Assault	Weight
<b>Danger Assessment Items</b>				
Physical violence increased	61 (41.22)	1.68 (0.83-3.40)	2.83 (1.25-6.39)	3
Used/threatened w/ weapon	44 (29.73)	2.17 (1.03-4.54)	2.39 (1.05-5.42)	2
Strangulation	58 (39.19)	2.49 (1.22-5.08)	3.17 (1.40-7.18)	2
Partner owns a gun	8 (5.41)	0.73 (0.14-3.75)	0.52 (0.06-4.42)	---
Forced sex	75 (50.68)	3.14 (1.50-6.58)	3.59 (1.49-8.69)	2
Partner uses drugs	22 (14.86)	0.81 (0.29-2.21)	1.52 (0.54-4.27)	---
He threatens to kill you	79 (53.38)	3.09 (1.46-6.55)	4.86 (1.86-12.72)	4
He is capable of killing you	85 (57.43)	2.83 (1.32-6.08)	1.74 (0.75-4.01)	1
He gets drunk daily	60 (40.54)	1.76 (0.87-3.56)	1.77 (0.79-3.93)	2
He controls your daily activities	72 (48.65)	1.08 (0.54-2.17)	0.99 (0.45-2.18)	---
Beaten while pregnant	47 (31.76)	1.62 (0.78-3.36)	1.76 (0.78-3.99)	1
Constantly/violently jealous	101 (68.24)	2.94 (1.24-6.95)	9.06 (2.06-39.83)	4
He threatened/tried suicide	42 (28.38)	1.34 (0.63-2.87)	1.26 (0.54-2.98)	1
He threatens to harm children	29 (19.59)	2.54 (1.10-5.84)	1.98 (0.80-4.94)	2
You have child that is not his	54 (36.49)	2.01 (0.98-4.09)	2.22 (0.99-4.95)	2
He is unemployed	46 (31.08)	1.11 (0.53-2.34)	1.07 (0.46-2.50)	---
You left in the past year	96 (64.86)	1.83 (0.85-3.94)	1.42 (0.60-3.36)	---
He avoids arrest for IPV	86 (58.11)	2.03 (0.97-4.25)	1.00 (0.45-2.23)	1
Spies on you	72 (48.65)	1.80 (0.89-3.64)	1.62 (0.73-3.60)	1
She threatened/tried suicide	32 (21.62)	---	---	---
<b>Additional Risk Items</b>				
Language of interview is English	77 (52.03)	2.19 (1.07-4.51)	1.61 (0.72-3.62)	1
Partner is not foreign Born	111 (75.00)	1.09 (0.48-2.45)	1.96 (0.69-5.94)	2
Married	89 (60.14)	0.92 (0.45-1.86)	1.82 (0.77-4.30)	2
No Kids in the home	19 (12.84)	2.24 (0.84-5.95)	3.35 (1.21-9.26)	5
No Kids in Common	29 (19.59)	2.54 (1.10-5.84)	3.72 (1.53-9.02)	4
Victim is not employed	76 (51.35)	1.54 (0.76-3.11)	1.19 (0.54-2.64)	1
Victim hides the truth from others	89 (60.14)	2.83 (1.30-6.18)	1.51 (0.65-3.50)	1
He prevents you from going to school, getting job training etc.	59 (39.86)	1.83 (0.90-3.72)	2.17 (0.97-4.83)	2
Threatened to report you	49 (33.11)	1.94 (0.94-4.00)	2.72 (1.21-6.11)	2
He gets upset about how you do things	80 (54.05)	1.16 (0.57-2.33)	0.88 (0.40-1.95)	---
Education: more than high school	39 (26.35)	0.98 (0.44-2.16)	1.44 (0.61-3.42)	1
Ashamed of what he does	125 (84.46)	12.38 (1.61-94.9)	6.95 (0.90-53.72)	4
<b>Dependent Variable: Re-abuse at follow-up</b>		<b>Any Re-Assault n=46 (31.08%)</b>	<b>Severe Re-Assault n=31 (20.95%)</b>	