

# Acculturation and Associated Effects on Abused Immigrant Women's Safety and Mental Functioning: Results of Entry Data for a 7-year Prospective Study

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**Abstract** Intimate partner violence has negative effects on women's safety and wellbeing. When immigrant women are victimized the danger and poor health may intensify. The purpose was to determine the impact of acculturation on severity of violence, danger for murder, mental health functioning, and safety behaviors of abused immigrant women. Entry data of a 7-year prospective study of 106 abused immigrant women who were first time users of safe shelter or justice services is presented. The interview included the Severity of Violence Against Women Scale, Danger Assessment, Brief Symptom Inventory (BSI), Safety Behavior Checklist, and Acculturation for Hispanics instruments. A significant ( $p < 0.05$ ) positive correlation between acculturation and safety behaviors and BSI scores was established. Higher acculturation scores were associated with significantly more practiced safety behaviors and higher levels of depression. Understanding the specific needs of abuse immigrant women associated with acculturation is imperative to develop interventions to interrupt abuse and promote safety and mental well-being.

**Keywords** Acculturation · Immigrant women · Intimate partner violence · Mental health · Safety behaviors

## Background

Intimate partner violence (IPV) and immigration are global phenomena affecting women worldwide. As reported in the World Health Organization (WHO) multi-country study, women are victims of intimate partner violence at epidemic rates [1] with lifelong detrimental effects to health and functioning [2]. Globally, the lifetime occurrence of physical abuse against women by an intimate partner varies from 6 % in China to more than 48 % in Peru [2]. According to the National Intimate Partner and Sexual Violence Survey (2011), in the United States (US), more than one in three women report lifetime abuse ranging from stalking to rape by an intimate partner [3]. In addition to the physical injuries of abuse, many abused women can also suffer mental health problems such as depression and anxiety [3]. Abused immigrant women face challenges—cultural, economic, and legal beyond those faced by other abused women [4, 5] yet, specific incidence of IPV in immigrant women are unavailable [6–8]. This paper measures acculturation scores of immigrant women who report partner violence and the associated effects on safety, severity of abuse, danger for murder, and mental functioning. Meaningful programs for immigrant women who are experiencing partner abuse cannot be formed without evidence on the association of acculturation with safety, health, and functioning.

## Immigration and Acculturation

Women comprise a growing number of immigrants around the world [9] accounting for 49 % of international migration [10]. According to the Migration Policy Institute (MPI), in 2008, immigrant women comprised 18.9 million or 12 % of total women in the US [11]. Upon arrival in a

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new country, women face new cultural norms, beliefs, practices, and possibly a new language [12]. When immigrant women acculturate to a new country and experience difficulties of language, culture, and resource availability they may be at greater risk to experience partner violence [13]. Immigration can negatively affect mental health [14–16]. When migration occurs in the presence of intimate partner violence, the stressful consequences of migration may be intensified.

Acculturation is the process of acclimating to a new culture, including adopting and using the new language and cultural norms [17, 18]. Acculturation can be a source of stress for immigrants and can result in higher rates of mental health disorders such as depression [19]. In addition, acculturation measures for Hispanic immigrants, such as language preference, country of birth, and age at time of arrival to the US, are risk factors for intimate partner violence [13]. Mexicans who immigrate to the US report higher risk of depressive and anxiety symptoms compared to Mexicans living in Mexico [18].

Furthermore, Gonzalez and Gonzalez [14] posited that higher prevalence of depression among Mexican immigrants might be related to the cultural and financial difficulties this population experience in adjusting to the US. On the other hand, Valencia-Garcia et al. [20] found no direct association between acculturation and psychological distress among women of Mexican origin living in the US. The discrepancy in findings might be due to other factors such as years living in the US, linguistic ability, social support, access to social services and possibly the presence or absence of partner violence. Partner violence may act to intensify the stress of acculturation and increase the likelihood of depression and poor mental health.

#### Partner Violence, Acculturation, and Immigrant's Women's Health and Safety

Abused immigrant women encounter lack of resources, social isolation, and lack of social support [21]. In the study of 137 immigrant women in the US from 35 countries, immigration and associated acculturation influenced how immigrant women interpret and respond to partner abuse and access resources [21]. Clearly, immigrant women experience stress as they acculturate and are at higher risk for symptoms of depression. The literature illustrates the negative impact of IPV, immigration, and acculturation on the psychological health of women. However, there is a gap on literature on the intersection of acculturation and IPV and its impact on the mental health and physical safety of immigrant women. Although much information exist on the importance of relationship of safety behaviors and decreased intimate partner violence [22–24], we identified no literature that examined the levels of partner violence

specific to immigrant women and the relationship of acculturation to mental health, risk for further abuse, and safety. Therefore, this study will fill a gap in the literature as to the relationship of acculturation and abuse. To best explore the relationship a community based participatory research framework was used.

#### Framework

The Principles of Community Based Participatory Research (CBPR) was used as a framework to guide this study. CBPR provides a structure for collaborative research where trust, knowledge, decision making, and responsibility are shared between researchers and community members with emphasis on health problems. Community members and researchers contribute equally in the research process including dissemination and utilization of research findings. For this study, our community partners were the staff of five shelters for abused women and District Attorney's personnel responsible for processing protection orders. These agency experts participated in designing survey questions for the study and dissemination of the findings. The researchers and agency directors and staff met weekly to discuss study progress.

#### Purpose of Study

To provide evidence based care for immigrant women who experience partner violence, this paper explores the relationship of acculturation and associated mental health scores of depression, anxiety, and somatization as well as safety behaviors, severity of abuse and danger of murder. Knowledge about the relationship of acculturation to the mental functioning and safety status of immigrant women experiencing partner violence is essential information for meaningful programs to interrupt violence and promote women's safety and optimum functioning.

#### Research Question

Based on the existing body of literature, specific research question for this paper include the following:

What is the relationship between acculturation and psychological health (i.e., depression, anxiety, and somatization), severity of abuse, danger for murder, and safety behaviors among immigrant women who report intimate partner violence?

#### Methods

This research is part of a 7-year prospective study funded by The Houston Endowment. The Texas Woman's

University institutional review board approved the project prospectively. The purpose of the 7 year prospective study is to investigate the treatment efficacy of the two models most often offered to abused women: safe shelter and justice services. In addition to examining the efficacy of these two modes of care and support for abused women, this study plans to investigate the long-term effects that the abuse has on the women’s functioning. Unlike previous studies on abused women, this study also plans to examine the effects that the abuse toward the woman has on her children over a 7-year span. For the purposes of this paper, we are examining the relationship between acculturation of immigrant women on outcome measures from baseline data. See McFarlane et al. [25] for a full review of the aim, scope, and methodology of the 7-year prospective study.

**Participants**

A total of 300 women agreed to participate in this study; however, the focus of this paper is on the 106 women who reported as being immigrants into the US. Just over half of sample participants were recruited from a shelter (n = 56, 52.8 %) with the remaining women being recruited from the DA’s office (n = 50, 47.2 %). Overviews of the sample characteristics can be found in Tables 1 and 2.

**Procedures**

In line with the scope of the 7-year prospective study, participants were recruited through both shelters and the District Attorney’s office. As women reached out to use either of the services, research assistants would provide them with an overview of the study, and provided them with informed consent. If women consented to participant, the research assistant would interview the woman to get demographic and outcome measurements. Interviews took approximately 45 min to complete. The information in this study is entry data.

**Measures**

*Acculturation Scale for Hispanics [26]*

This 5-item, 4-point scale that reliably identifies Hispanics who are low or high in acculturation. Predictive validity has been established and a coefficient alpha of 0.92 across repeated studies. Scoring is an average across the 4 items and range from 1.0 to 5.0 with an average of 2.99 used to differentiate the less acculturated respondents. Time to complete the acculturation scale is approximately 1 min.

**Table 1** Frequencies and percentages of demographic variables

	n	%
Ethnicity		
White	15	14.2
Black	2	1.9
Spanish or hispanic	84	79.2
Other	5	4.7
Currently in an intimate relationship		
No	90	84.9
Yes	16	15.1
Relationship status with abuser		
Not currently in a relationship with the abuser	55	51.9
Currently in a relationship with the abuser	51	48.1
Attend school as child?		
No	3	2.8
Yes	103	97.2
Completed grades 1–8?		
No	7	6.6
Yes	99	93.4
Completed grades 9–11?		
No	31	29.2
Yes	75	70.8
Graduate from high school or GED?		
No	59	55.7
Yes	47	44.3
Completed 1–3 years of college?		
No	74	69.8
Yes	32	30.2
Completed 4 or more years of college?		
No	99	93.4
Yes	7	6.6
Randomly chosen child’s gender		
Boy	64	60.4
Girl	42	39.6

**Table 2** Means and standard deviations of demographic variables

	n	M	SD	Min	Max
Age of woman	106	32.93	7.66	18	52
Child age (years)	106	7.49	4.34	2	16
Children between 1.5–16 years	106	1.91	1.03	1	5
Months in relationship	103	103.76	71.68	2	300
People living in household	104	3.81	1.64	1	9

*Safety Behavior Checklist [27]*

The checklist is a 7-item safety survey to assess present use of safety behaviors and chart future adoption. The safety behavior checklist was initially published in 1994 by the March of Dimes as part of a comprehensive protocol on the

care of abused women [26] and subsequently updated [28, 29]. Content validity was established by a group of nurse researchers in the field of violence against women and since has been used to evaluate safety behaviors adoptions [30, 31]. Scoring of the checklist proceeds as follows. Since not all 7 items on the checklist are applicable to every participant (e.g., a woman with a child <5 years of age would be “not applicable” for teaching the child to dial 911); therefore, the scoring of the checklist is “adjusted” for purposes of interpretation and comparison. The adjusted total score falls within a 0-to-7 range of behaviors performed. The following equation expresses the relationship of the number of applicable behaviors performed to the “adjusted” total number of behaviors:  $a/b = x/7$ , where (a) is the number of behaviors performed, (b) is the total number of applicable behaviors, and (x) is the adjusted total. An “adjusted” total number of behaviors performed are calculated each time the safety behavior checklist is completed. Time to complete the Safety Behavior Checklist is approximately 2 min.

#### *Brief Symptom Inventory (BSI) [32]*

This 18-items shorter version of the BSI-53 measures three global indices of psychological distress: depression, anxiety, and somatization. Internal consistency reliability ranges from 0.74 to 0.89 on the subscales. Test–retest reliability over 2 weeks ranges from 0.68 to 0.91. A principal components analysis has been performed to determine dimensional analysis. Factors identified in the analysis include depression, somatization, and anxiety. Time to complete the BIS is approximately 3 min.

#### *Severity of Violence Against Women Scale (SAVAWS) [33]*

A 47-item instrument designed to measure threats of physical violence (19 items) and physical assault (28 items). Examples of behaviors that threaten physical violence are threats to destroy property, hurt the woman, or harm other family members. Examples of behaviors that represent physical violence are kicking, beating up, and forced sex. Included are nine factors or sub-scales that have been demonstrated valid through factor analytic techniques: Symbolic Violence and Mild, Moderate, and Serious Threats (Threats of Violence dimension) and Mild, Minor, Moderate, Serious, and Sexual Violence (Actual Violence dimension). For each item, the woman responds using a 4-point scale to indicate how often the behavior occurred (1 = never, 2 = once, 3 = 2–3 times, 4 = 4 or more times). The possible range of scores is 19–76 for the threats of abuse and 28–112 for physical assault. Initial internal consistency reliability estimates ranged from .92 to .96 for a sample of 707 college female students and from

.89 to .96 for a scale of 208 community women [33]. Subsequent reliability for abused women has ranged from .89 to .91 for threats of abuse and .91–.94 for assault respectively [34, 35]. Time to complete the SAVAWS is approximately 5 min.

#### *Danger Assessment Scale (DAS) [36]*

This 19-item questionnaire with a yes/no response format is designed to assist women in determining their potential risk for becoming a femicide victim. All items refer to risk factors that have been associated with murder in situations involving abuse. Examples of risk factors include the abusers possession of a gun, use of drugs, and threats to kill the woman. Convergent construct validity of the instrument has been supported by correlations in the moderately strong range, with instruments measuring severity and/or frequency of abuse [37]. Validity in terms of differentiating groups is supported by the different means in seven groups of abused women studied that accurately reflect the differing degrees of severity of abuse one would expect in different populations. For example, the lowest scores were in the non-abused sample, with the highest scores in the hospital emergency room group. Samples of abused women from the community had scores in the intermediary range [37]. Initial reliability of the instrument was .71 and ranged from .60 to .86 in five subsequent studies [37]. Weighted scoring results in four ranges of danger: <8 = Variable Danger; 8–13 = Increased Danger; 14–17 = Severe Danger; and 18 or more = Extreme Danger. Time to complete the DAS is approximately 5 min.

#### Data Analysis

Data were confidentially encoded and entered into a secure database in the research office. For the purpose of the study presented here, we analyzed the data related to the relationship between acculturation and outcome measures. In order to test the relationship, Pearson’s Product Moment Correlations were calculated.

#### Results

In order to get an understanding of the physical and mental functioning of the women in this study, means and standard deviations were calculated, see Table 3. On average women in this sample indicated lower levels of acculturation ( $M = 1.94$ ;  $SD = 1.13$ ), and that the average participant was in extreme danger ( $M = 14.73$ ,  $SD = 7.14$ ). Average scores on the remaining outcome variables all indicate that the women in this study are experiencing high

**Table 3** Means and standard deviations of outcome measures

	N	M	SD	Min	Max
Acculturation	100	1.94	1.13	1.00	5.00
Marginalization	106	14.43	5.36	5.00	25.00
Safety behaviors	106	3.11	1.78	.00	7.00
Danger assessment	106	14.73	7.14	−1.00	30.00
BSI global	106	26.58	15.35	.00	61.00
BSI anxiety	106	10.42	6.57	.00	24.00
BSI somatization	106	6.20	5.85	.00	21.00
BSI depression	106	9.95	5.89	.00	24.00
Pain severity	63	13.78	7.01	.00	27.00
Pain interference	63	20.14	16.64	.00	56.00
Threats score	106	40.92	12.71	19.00	67.00
Physical abuse	106	35.98	12.77	21.00	72.00
Sexual abuse	105	8.66	3.80	6.00	22.00
PTSD symptoms	106	5.46	1.65	1.00	7.00

levels of distress in terms of physical safety, as well and physical and psychological wellbeing.

Pearson’s Product Moment correlations between the outcome measures and acculturation are displayed in Table 4. There were significant, positive relationships between acculturation and safety behaviors, Brief Symptom Index (BSI) Global scores, BSI Anxiety scores, and BSI Depression scores, indicating that immigrant women who had higher levels of acculturation tended to have higher scores on the aforementioned measures, *rs* ranging

from .212 to .277, all *ps* < .05. Acculturation was not significantly related to the remaining measures (threats, physical abuse, sexual abuse danger of murder, or BSI Somatization), all *ps*, *ns*.

In addition to our primary focus on the relationship of acculturation on outcome measures, the data also found significant relationships among the other outcome measures, as also shown in Table 4. Marginalization was significantly associated with increased levels of BSI Depression and Physical Abuse (*rs* = .310 and .196, respectively, *ps* < .05). Danger assessment scores were significantly and positively related to all abuse severity measurements (e.g., Threats, Physical, Sexual; *rs* ranging from .379 to .637, all *ps* < .01), indicating that those with higher Danger Assessment Scores tending to have higher abuse severity. BSI Somatization was significantly and positively BSI Depression, Pain Interference, Threats, Sexual Abuse, and PTSD Symptoms (*rs* ranging from .236 to .532, all *ps* < .05). Further relationships are outlined in Table 4.

**Discussion**

Immigrant women who are abused deal with many factors that complicate their quest for safety and wellbeing as they go through the acculturation process. It has been documented that intimate partner violence [38], migration, [15], and acculturation [39] have a negative impact on mental

**Table 4** Pearson’s product moment correlations between outcome measures

	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Acculturation													
2 Marginalization	.024												
3 Safety behaviors	.204*	.025											
4 Danger assessment	−.059	.117	−.017										
5 BSI global	.272**	.156	.122	.132									
6 BSI anxiety	.225*	.059	.044	.169	.879**								
7 BSI somatization	.182	.030	.182	.117	.815**	.589**							
8 BSI depression	.281**	.310**	.088	.039	.817**	.591**	.474**						
9 Pain severity	.131	.046	.116	.166	.201	.195	.115	.197					
10 Pain interference	.044	.106	.171	−.015	.449**	.341**	.389**	.402**	.560**				
11 Threats score	.161	.051	.161	.637**	.351**	.319**	.347**	.216*	.266*	.157			
12 Physical abuse	.068	.196*	.177	.499**	.166	.154	.161	.101	.113	−.082	.671**		
13 Sexual abuse	−.132	−.055	−.047	.379**	.120	.085	.236*	−.018	.112	−.043	.324**	.283**	
14 PTSD symptoms	.106	.167	.123	.158	.604**	.628**	.423**	.455**	.206	.437**	.211*	.141	.180

\* *p* < 0.05; \*\* *p* < 0.01

health. To our knowledge, this is the first study exploring the relationship between intimate partner violence and acculturation among abused immigrant women and how acculturation impacts mental well-being and safety.

Our analysis of baseline data of a sample of 106 abused immigrant women found that on average, women are more likely to be less acculturated, are in extreme danger, and experience high levels of distress in terms of safety and physical and psychological health. Further findings of this sample indicate acculturation positively correlated to safety behaviors, depression, and anxiety. Perhaps as immigrant women become familiar with the new culture and acquire linguistic skills they are more likely to access resources and practice more safety behaviors; however, with more acculturation more symptoms of depression and anxiety are reported.

In addition to immigrant women reporting higher levels of depression [17], acculturation is frequently associated with conflicting values that can cause stress and anxiety resulting in depression. Cultural beliefs and attitude might prevent certain ethnic groups from not only accessing mental health services as it is the case for Latinos [39] but from accepting the mental health services available in the US [40]. Or simply, the relationship between IPV and mental issues might not be apparent and/or might not represent a high priority to immigrant women.

Although intimate partner violence has been associated with immigration and acculturation, no significant differences were found between acculturation and severity of violence or danger of murder in this study. Perhaps the more safety behaviors practiced by higher acculturated women provides less risk of abuse and danger for murder. No other research was found in the literature addressing the impact of acculturation and the severity of abuse or danger of murder.

Research indicates that marginalization has a negative impact on abused women [41]. Immigrant women are not only at high risk for IPV [42] but are also at high risk of marginalization [43]. Additionally, immigrant women report higher levels of depression [17]. In this analysis, women who were marginalized had higher levels of depression and physical abuse. These findings support previous research. Clearly, a conglomeration of factors, including cultural beliefs, inability to recognize psychological symptoms, such as anxiety and depression, as consequences of immigration and partner violence, and higher levels of marginalization may contribute to poor mental health functioning of immigrant women who are abused.

It is documented that abused women experience high risks for further abuse and severe danger of being murdered [25]; the same holds true for the women in this study. The

women in this sample who had a higher risk of being murdered also had higher levels of severity of abuse. By the same token, women experiencing higher levels of somatization had more depression, pain interference, threats, sexual abuse, and PTSD symptoms. Indicating that just like other groups of abuse women, immigrant women who report intimate partner violence endure physical and psychological symptoms.

#### Future Research

In order to develop interventions that meet the specific needs of abused immigrant women according to their level of acculturation, research is needed on how acculturation interfaces with other factors such as education, cultural beliefs, and mental health. Evidence is needed on the relationship between acculturation, documentation status and employment; differences in acculturation levels between women who access community resources for abuse and immigrant women who do not; and how changes in acculturation over time impact immigrant women's mental health, employment, and re-abuse patterns.

#### Limitations

Certain limitations inherent in this study should be noted. The majority of women in this sample were from Spanish speaking countries; thus, the finding on higher acculturation and higher levels of depression and anxiety may not be representative of all immigrant women who report abuse. Clearly, research is needed on acculturation and mental health measures among immigrant women who report abuse from non-Spanish speaking countries. In spite of these limitations, the findings in this paper are significant, meet a gap in the research and document the need for further research.

#### Conclusions

Globally, immigration and violence affect millions of women each day. This research documents that although more acculturated abused immigrant women report more safety behaviors, the higher acculturated women also report higher levels of depression and anxiety compared to less acculturated women. Evidence for policy is clear. Acculturation can have a positive effect on abused women with higher levels of acculturation associated with more practiced safety behaviors. It can also indicate a higher likelihood of negative consequences of a higher risk of depression and anxiety.

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