



## Original article

## Perceived Threat of Violence and Exposure to Physical Violence Against Foreign-Born Women: A Swedish Population-Based Study

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### A B S T R A C T

**Background:** Violence against women is an increasing global phenomenon. Little is known about violence against foreign-born women, despite a possible increased concentration of risk factors in this group.

**Methods:** This study investigated prevalence of perceived threat of violence and exposure to physical violence and its relation to country of birth among women (18–64 years) residing in southern Sweden, using data obtained from the 2004 Public Health Survey in Scania, Sweden.

**Findings:** Foreign-born women reported significantly higher rates of both perceived threat of violence and exposure to physical violence compared with Swedish-born women. Foreign-born women exposed to violence originated primarily from middle/low-income countries (versus high-income countries). The risk of perceived threat of violence remained significantly increased among foreign-born even after further adjustment for potential confounders, such as marital status and disposable income. After similar adjustment, increased exposure to physical violence was no longer significantly related to foreign-born status, but instead was largely attributable to marital status and low levels of disposable income. Foreign-born women, however, had a greater risk of physical violence in the home than Swedish-born women, and violence in the home was the most frequently reported setting for violence exposure among foreign-born women.

**Conclusion:** Migration may confer an increased risk of interpersonal violence against women. Although the underlying causes of this increased risk are unknown, a complex set of factors may be involved, including socioeconomic disadvantage.

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### Introduction

Violence against women is an increasing global phenomenon and a major public health and human rights concern (Campbell, 2002; Ellsberg, Jansen, Heise, Watts, & Garcia-Moreno, 2008; Garcia-Moreno, Jansen, Ellsberg, Heise & Watts, 2006; Krantz, 2002; Jewkes, 2002). The World Health Organization's multi-country study on women's health and domestic violence reported high prevalence rates of exposure to interpersonal violence across a wide range of settings and that the perpetrator of such violence was primarily an intimate partner (Garcia-Moreno et al.,

2006). Moreover, exposure to interpersonal violence may be seriously underreported owing to stigmatization and feelings of guilt (Garcia-Moreno et al., 2006).

The term *violence against women* encompasses a broad range of various types of interpersonal abuse with the intention of causing harm, including physical acts, coercion, and threats, among which the most common form is violence by an intimate male partner or former partner (Krantz & Garcia-Moreno, 2005). Previous research shows that exposure to violence has short- as well as long-term negative effects on abused women's health, with generally similar consequences with regard to interpersonal violence (Bohn & Holz, 1996; Flood & Pease, 2009; Krantz & Garcia-Moreno, 2005; Watts & Zimmerman, 2002) and to intimate partner violence (Campbell et al., 2002; Ellsberg et al., 2008; Krantz & Vung, 2009). Interpersonal violence includes abuse during childhood, rape, coercive sex, assault, and stalking, as well as intimate partner violence (Humphreys & Lee, 2009;

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Russo & Pirlott, 2006). The potential impact on health of exposure to these various types of violence depends on the severity and chronicity of the specific event(s) (Resnick & Acierno, 1997). Poor mental health outcomes such as depression, anxiety, somatization, and suicide are associated with interpersonal violence more generally (Bohn & Holz, 1996; Humphreys & Lee, 2009; Evans-Campbell, Lindhorst, Huang, & Walters, 2006; Watts & Zimmerman, 2002), as well as with intimate partner violence (Ellsberg et al., 2008; Fischbach & Herbert, 1997; Haj Yahia, 2000; Saif el Dawla, 2001), among women from both high- and low-income countries.

A complex interplay of factors contributes to interpersonal violence against women, and the underlying causes are still open to debate (Jewkes, 2002). A large portion of interpersonal violence against women is gender-based, that is, shaped by gender roles and expectations (Russo & Pirlott, 2006), although single acts of violence may have other root causes. Thus, uneducated and less empowered women are at greater risk of gender-based violence, most likely owing to the negative impact of women's subordination to men on the dynamics of family relationships (Jewkes, Penn-Kekana, & Levin, 2002). Gender inequalities such as those fostered by patriarchal structures sanctioning women's subordination to men are thus strong contributors to interpersonal violence against women (Flood & Pease, 2009; Krantz & Garcia-Moreno, 2005) and to intimate partner violence (Abu-Ras, 2007; Chang, Shen, & Takeuchi, 2009; Thapa-Oli, Dulal, & Baba, 2009). In addition to gender inequality, a variety of other determinants are thought to play a role for women's exposure to violence, such as poverty, social norms, history of violence in childhood, high levels of conflicts within a relationship, alcohol consumption, and the level of violence in the immediate neighborhood in the generation of interpersonal violence more generally (De Jesus, 2009; Flood & Pease, 2009) and intimate partner violence more specifically (Jewkes, 2002; Jewkes et al., 2002; Krishnan et al., 2010; Sampson, Raudenbush, & Earls, 1997).

Interpersonal violence against women may be especially prevalent in immigrant communities, in part owing to a greater concentration of risk factors, such as poverty, social isolation, and norms that might sanction the use of violence against women, as well as language barriers and ignorance of facilities for help seeking (Darvishpour, 2002; Raj & Silverman, 2003). Most studies of violence against foreign-born women concern intimate partner violence (Abu-Ras, 2007; Chang et al., 2009; Fischbach & Herbert, 1997; Haj Yahia, 2000; Saif el Dawla, 2001; Thapa-Oli et al., 2009); for interpersonal violence against foreign-born women, see De Jesus (2009). However, systematic research pertaining to violence against women among foreign-born persons internationally has been scarce (Dasgupta, 2005; Thapa-Oli et al., 2009) and to our knowledge no such studies have been conducted in Sweden. According to Nilsson, Brown, Russell, and Khamphakdy-Brown (2008), great cultural differences between the country of origin and the new country enhance stress after migration, although Hyman, Forte, Du Mont, Romans, and Cohen (2006a) found that recently arrived foreign-born women were less at risk for intimate partner violence than those with a longer duration of residence. Duration of residence may even have implications for help-seeking patterns and thus influence detection rates of violence against foreign-born women (Evans-Campbell et al., 2006; Hyman, Forte, Du Mont, Romans & Cohen, 2006b). Despite knowledge gaps concerning violence against foreign-born women, previous studies have reported poorer self-rated health (Essén, Hanson, Lindquist, Östergren & Gudmundsson, 2000a; Essén et al., 2000b; Essén

et al., 2002, Essén, Blomkvist, Helström & Johnsdotter, 2010) and poorer mental health (Cantor-Graae, Zolkowska, & McNeil, 2005; Hjern & Allebeck, 2002; Sundquist, Bayard-Burfield, Johansson, & Johansson, 2000) among foreign-born (both men and women) in Sweden as well as "feelings of powerlessness" (Akpinar, 2003) owing to unemployment and/or loss of authority and status among some foreign-born men (Erman, 2001; Hondagneu-Soletto, 1992; Kibria, 1990).

Several scholars argue that changes in power dynamics within the family can be a stressor leading to interpersonal violence, and such changes in relational dynamics may occur especially after migration (Jin & Keat, 2009; Krishnan et al., 2010). Women who only acted in the private sphere before migration may become an important contributor to the financial well-being of the family in the new country, and thereby gain increased independence. This in turn may lead to a decreased role for men as the main provider for the family, and consequently to a decrease in male status. A new set of cultural norms empowering the women and/or the children and thereby changing the power structure in the family may increase or even initiate violence among foreign-born owing to migration (Jewkes, 2002; Sokoloff & Dupont, 2005). Moreover, violence against women may even be sanctioned in certain immigrant cultures based on traditional values (Abu-Ras, 2007), with the most extreme example of this being honor killings (Kulwicki, 2002). More generally, it may be noted that in socially disadvantaged neighborhoods, the use of violence may be preferentially sanctioned, and those foreign born may be more often relegated to living in neighborhoods with high rates of interpersonal violence owing to socioeconomic disadvantage. Neighborhood characteristics may also influence the extent to which persons are willing to intervene to prevent interpersonal violence (Sampson et al., 1997).

Because violence against women may have long-reaching health consequences, both within the immediate family and society at large, it is important to gain further knowledge about the prevalence of exposure to violence in the foreign-born population. This study is a first step in the assessment of the extent of perceived violence against foreign-born women in Sweden and seeks to provide an estimate of the extent to which perception of threat of violence and exposure to physical violence in the general population may differ between Swedish-born and foreign-born persons residing in Sweden. The specific objective of the study was to investigate exposure to perceived threat of violence and physical violence among women (18–64 years) in Scania in relation to country of birth, and the settings where such violence has occurred. In addition, we hypothesize that women from low-income countries are more at risk of exposure to violence than women from high-income countries, because of the potential influence of low empowerment. Scania is an optimal setting for studying violence among foreign-born owing to the density of the foreign-born population in this region, and particularly the density of foreign-born persons from low-income countries, where poverty is highly prevalent.

## Material and Methods

### Study Population

This is a population-based cohort study of 11,556 women between the ages of 18 and 64 years, and utilizes data obtained from the 2004 Public Health Survey in Scania, in southern Sweden (Rosvall, Khan, Nilsson, & Östergren, 2005). This cross-sectional

study of population health is based on self-reported information derived from a postal questionnaire sent to randomly selected persons born between 1919 and 1981. All persons received three postal reminders to ensure a satisfactory response rate. Respondents were guaranteed that their answers would remain anonymous. The questionnaire contains 130 questions pertaining to health-related issues, such as mental health, disease, medication, alcohol use, smoking, physical exercise, living conditions, and other background factors, including employment, socioeconomic status, and foreign-born status. Respondents choose their answers from among several structured alternatives. A total of 27,963 persons (50.4% women, 49.6% men) 18 to 80 years old answered the questionnaire, which represents 57.4% of the total target population sample ( $n = 48,739$ ). The current study population is limited to women in the cohort between the ages of 18 and 64 years to examine women in the workforce, and thus not restrict violence to that which occurs in the home. Approval for the survey was granted by the Lund University Ethical Review Board.

### Survey Measures

Exposure to threat of violence and exposure to physical violence were based on the responses to two questions: "Have you at any time during the last 12 months been exposed to threat of violence dangerous or serious enough to scare you?" and "Have you at any time during the last 12 months been exposed to physical violence?" Possible answers were "yes" and "no" to both questions. The respondents were also asked to select the setting where such violence occurred, according to the following categories: in the home, in another home/the neighborhood, at work/at school, in a public place (i.e., in an amusement park, train, bus or metro), or other place.

### Stratification of Demographic and Socioeconomic Variables

The study population of 11,556 women aged 18 to 64 years was divided into two groups stratified by age—18 to 44 and 45 to 64 years. Such stratification was based on the a priori hypothesis that women in reproductive age (18–44 years) are more at risk of intimate partner violence than older women. Marital status was defined as unmarried/divorced/widow or married/cohabitating. Socioeconomic status was measured by educational level, employment status, and disposable income. Educational level was divided into low ( $\leq 9$  years) and middle/high education ( $> 9$  years), and employment status was defined as being employed or not. Disposable household income was based on Statistics Sweden's (2009) algorithm, whereby the yearly income of a household is divided by number of consumption units in the household, and thereafter divided by 12 to obtain disposable monthly household income. Income level was divided into two categories: high ( $\geq 9,000$  SEK  $\approx \geq 1,250$  US\$) and low ( $< 9,000$  SEK  $\approx < 1,250$  US\$). In addition, information was obtained on duration of residence in Sweden for the foreign-born participants. Duration of residence was dichotomized as 10 years or less versus more than 10 years.

### Classification of Country of Birth

Among the 11,556 women included in this sample, 9,502 (82.2%) were born in Sweden and 2,054 (17.8%) were born in a foreign country. Country of birth was first classified into eight subgroups (based on geographical location): Sweden ( $n = 9,502$ ;

82.2%); other Nordic country ( $n = 322$ ; 2.8%); other European country ( $n = 1018$ ; 8.8%), country in the Middle East and North Africa ( $n = 336$ ; 2.9%), country in Sub-Saharan Africa ( $n = 35$ ; 0.3%), Asian country excluding the Middle East ( $n = 232$ ; 2.0%), Latin American country ( $n = 91$ ; 0.8%), and North American or Australian country ( $n = 21$ ; 0.2%). A similar classification of geographical background has been used in previous Swedish studies (Epidemiological Center, 1998; Essén et al., 2000a; Rasmussen, Oldenburg, Eriksson, & Gunnarskog, 1995). However, because of the small numbers in some subgroups, for the purpose of analyses these groups were aggregated into two subgroups based on birthplace: Swedish-born ( $n = 9,502$ ) and foreign-born ( $n = 2,054$ ). Among foreign-born respondents, country of birth was also classified according to the country's developmental level, as defined by criteria set forth by the World Bank (2009), yielding the following categories: high-income ( $n = 632$ ), middle-income ( $n = 1,317$ ), and low-income ( $n = 105$ ) countries. Because of the small numbers in the last two groups, the countries were aggregated as follows: high-income countries (30.8%) and middle/low-income countries (69.2%). The foreign-born women in this sample originate from 98 different countries (Table 1).

### Statistical Analysis

Statistical calculations were carried out using SPSS computer software (version 14.0; SPSS, Inc., Chicago, Ill). Independent t-tests were used for the analysis of numeric measures (age) and  $\chi^2$  tests were used for the analysis of categorical variables. Swedish-born and foreign-born women were compared with regard to the distribution of background characteristics (age, marital status, educational level, unemployment, disposable monthly household income), the frequency of reported exposure to threat of violence and physical violence, and the setting where such violence occurred. Among foreign-born women, exposure to violence was examined in relation to duration of residence in Sweden. Multivariate logistic regression analyses were used to examine perceived threat of violence and exposure to physical violence among foreign-born women versus Swedish-born women (reference category) in relation to potential confounders. Odds ratios (OR), and 95% confidence intervals (CI) were obtained. Crude ORs were adjusted for age, marital status, educational level, unemployment, and disposable household monthly income in a stepwise model. Only those cases with information on these measures were included in the multivariate analyses. Exposure to violence was further examined in relation to country of birth's developmental level (high- versus middle/low-income country). Significance was accepted at  $p \leq .05$ .

### Results

The distribution of the background characteristics in the sample is presented in Table 1. The mean age among foreign-born women did not differ from Swedish-born women. The stratification of the sample by age group yielded a significantly different age distribution with fewer older (versus younger) women among the foreign-born ( $\chi^2 = 12.99$ ;  $p < .001$ ). Marital status did not differ between the two groups. Foreign-born women had significantly lower educational levels ( $\chi^2 = 30.23$ ;  $p < .001$ ), a higher prevalence of unemployment ( $\chi^2 = 46.55$ ;  $p < .001$ ), and a lower disposable monthly household income ( $\chi^2 = 442.84$ ;  $p < .001$ ) than the Swedish-born women (Table 1). Missing values for the various background measures did not exceed 6.5% of the sample.

**Table 1**  
Background Characteristics for Swedish-Born<sup>a</sup> and Foreign-Born<sup>b</sup> Women Aged 18–64 Years<sup>c</sup>

Mean age ( $\pm$ SD)	Swedish-Born Women	Foreign-Born Women	$\chi^2$ Test	p-Value <sup>e</sup>
	40.86 <sup>d</sup> $\pm$ 13.50	40.54 $\pm$ 12.67		
	N (%)	N (%)		
Age (yrs)				
18–44	5,530 (58.2)	1,284 (62.5)		
45–64	3,972 (41.8)	770 (37.5)	12.99	<0.001
Total	9,502	2,054		
Married/cohabitating				
Yes	6,100 (66.4)	1,307 (67.9)		
No	3,087 (33.6)	619 (32.1)	1.53	0.22
Total	9,187	1,926		
Educational level				
$\leq$ 9 yrs	1,708 (18.0)	450 (23.4)		
$>$ 9 yrs	7,758 (82.0)	1,470 (76.6)	30.23	<0.001
Total	9,466	1,920		
Unemployed				
Yes	593 (6.3)	211 (10.7)		
No	8,774 (93.7)	1,768 (89.3)	46.55	<0.001
Total	9,367	1,979		
Disposable income <sup>f</sup>				
$<$ 9000	4,023 (42.5)	1,329 (68.6)		
$\geq$ 9000	5,453 (57.5)	607 (31.4)	442.84	<0.001
Total	9,476	1,936		

<sup>a</sup> Swedish-born women are persons born in Sweden to Swedish-born parents ( $n = 9,502$ ).

<sup>b</sup> Foreign-born women are persons born in another country to foreign-born parents ( $n = 2,054$ ). The foreign-born women in the study originates from 98 countries: Afghanistan, Albania, Algeria, Argentina, Australia, Austria, Bangladesh, Belarus, Bolivia, Bosnia-Herzegovina, Brazil, Bulgaria, Canada, Chile, Colombia, Costa Rica, Croatia, Czech Republic, Cyprus, Denmark, Egypt, El Salvador, Eritrea, Estonia, Ethiopia, Finland, France, Gambia, Georgia, Germany, Great Britain, Greece, Guinea-Bissau, Guyana, Hong Kong, Hungary, India, Indonesia, Iraq, Iran, Ireland, Iceland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kina, Kyrgyzstan, Korea, Kosovo, Kuwait, Latvia, Lebanon, Liberia, Lithuania, Macedonia, Malaysia, Mali, Morocco, Mauritius, Mozambique, The Netherlands, Norway, Pakistan, Peru, Philippines, Poland, Portugal, Rumania, Russia, Switzerland, Serbia-Montenegro, Slovakia, Slovenia, Somaliland, Spain, Sri Lanka, South Africa, South Korea, Syria, Tanzania, Thailand, Togo, Tunisia, Turkey, United Arab Emirates, Uganda, Ukraine, Uruguay, the United States, Venezuela, Vietnam, and Zambia.

<sup>c</sup> Data were obtained from the Public Health Survey in Scania, 2004 ( $n = 11,556$ ).

<sup>d</sup> Comparisons for age were conducted by an independent  $t$ -test.

<sup>e</sup> Analysis was conducted by  $\chi^2$  test.

<sup>f</sup> Disposable monthly household income:  $\geq 9,000$  SEK  $\approx \geq 1,250$  US\$;  $< 9,000$  SEK  $\approx < 1,250$  US\$.

Table 2 shows the overall distribution of perceived threat of violence and exposure to physical violence in relation to country of birth. Foreign-born women reported significantly greater exposure to both perceived threat of violence ( $\chi^2 = 15.73$ ;  $p < .001$ ) and physical violence ( $\chi^2 = 4.73$ ;  $p = .03$ ; Table 2). Among foreign-born women, no relationships were found between duration of residence and perceived threat of violence and exposure to physical violence ( $\chi^2 = 0.18$ ;  $p = 0.67$ ;  $\chi^2 = 2.2$ ;  $p = .14$ , respectively; data not shown). Among foreign-born women, those born in middle/low-income countries showed a significantly greater risk of exposure to physical violence ( $\chi^2 = 5.06$ ;  $p = .03$ ) compared with the women born in high-income countries. Women born in middle/low-income countries did not have an increased risk for threat of violence compared with women born in high-income countries ( $\chi^2 = 3.37$ ;  $p = .07$ ; data not shown).

Table 3 shows the results for the multivariate analyses. In the crude models, foreign-born women had a significantly increased risk for exposure to threat of violence and exposure to physical violence, compared with Swedish-born women. The increased risk for threat of violence in foreign-born women compared with Swedish-born women remained significant (OR, 1.43; 95% CI, 1.19–1.70) in the fully adjusted model, after stepwise adjustment for the potential confounders represented by age, marital status, educational level, unemployment, and disposable household income. In contrast, risk for exposure to physical violence was no longer related to foreign-born status in the fully adjusted model, but was instead largely attributable to marital status (marriage/

cohabitation) and to low levels of disposable household income (Table 3).

Table 4 shows the distribution of settings reported for exposure to physical violence, comparing Swedish-born and foreign-born women. Exposure to violence in the home was significantly more frequently reported among foreign-born women than among Swedish-born ( $\chi^2 = 10.22$ ;  $p < .001$ ). Reported exposure

**Table 2**  
Distribution of Perceived Threat of Violence and Exposure to Physical Violence Among Swedish-Born<sup>a</sup> and Foreign-Born<sup>b</sup> Women Aged 18–64 Years<sup>c</sup>

	Swedish-Born	Foreign-Born	$\chi^2$ tests	p-Value <sup>d</sup>
	N (%)	N (%)		
Threat of violence				
No	8,604 (93.5)	1,749 (91.0)		
Yes	600 (6.5)	174 (9.0)	15.73	<0.001
Total	9,204	1,923		
Physical violence				
No	9,074 (96.3)	1,916 (95.3)		
Yes	348 (3.7)	95 (4.7)	4.73	0.03
Total	9,422	2,011		

<sup>a</sup> Swedish-born women are persons born in Sweden to Swedish-born parents ( $n = 9,502$ ).

<sup>b</sup> Foreign-born women are persons born in another country to foreign-born parents ( $n = 2,054$ ).

<sup>c</sup> Data were obtained from the Public Health Survey in Scania, 2004 ( $n = 11,556$ ).

<sup>d</sup> Analysis conducted by  $\chi^2$  test.

**Table 3**  
Perceived Threat of Violence and Exposure to Physical Violence in Relation to Foreign Country of Birth

	Crude OR OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 3 OR (95% CI)	Model 4 OR (95% CI)	Model 5 OR (95% CI)
<b>Threat of violence</b>						
Swedish-born women	1.00 (ref)	1.00 (ref)	1.00 (ref)	1.00 (ref)	1.00 (ref)	1.00 (ref)
Foreign-born women	1.43 (1.19–1.70)*	1.40 (1.17–1.67)*	1.39 (1.16–1.66)*	1.44 (1.20–1.73)*	1.45 (1.20–1.74)*	1.27 (1.05–1.54)*
Age <sup>a</sup>	—	1.82 (1.55–2.13)*	1.72 (1.46–2.03)*	1.80 (1.53–2.13)*	1.77 (1.50–2.10)*	1.59 (1.33–1.88)*
Marital status <sup>b</sup>	—	—	2.23 (1.93–2.59)*	2.17 (1.88–2.54)*	2.15 (1.84–2.50)*	2.11 (1.80–2.46)*
Educational level <sup>c</sup>	—	—	—	1.19 (0.99–1.43)	1.20 (1.00–1.45)	1.16 (0.96–1.39)
Unemployment <sup>d</sup>	—	—	—	—	1.01 (0.77–1.33)	0.94 (0.74–1.29)
Disposable income <sup>e</sup>	—	—	—	—	—	1.55 (1.31–1.82)*
<b>Physical violence</b>						
Swedish-born women	1.00 (ref)	1.00 (ref)	1.00 (ref)	1.00 (ref)	1.00 (ref)	1.00 (ref)
Foreign-born women	1.30 (1.03–1.64)*	1.27 (1.00–1.60)*	1.25 (0.98–1.60)	1.33 (1.04–1.70)*	1.30 (1.01–1.68)*	1.11 (0.85–1.45)
Age	—	2.01 (1.62–2.49)*	1.88 (1.50–2.35)*	1.94 (1.55–2.43)*	1.87 (1.49–2.35)*	1.60 (1.27–2.02)*
Marital status	—	—	2.52 (2.06–3.07)*	2.45 (2.00–3.00)*	2.45 (1.99–3.00)*	2.36 (1.91–2.90)*
Educational level	—	—	—	1.24 (0.97–1.57)	1.28 (1.01–1.64)	1.20 (0.94–1.53)
Unemployment	—	—	—	—	0.78 (0.52–1.17)	1.36 (0.91–2.04)
Disposable income	—	—	—	—	—	1.85 (1.48–2.31)*

\*  $p < 0.05$ .

<sup>a</sup> Age groups: 18–44 and 45–64 (ref) years.

<sup>b</sup> Married/cohabitating, unmarried/divorced/widow (ref).

<sup>c</sup> Educational level:  $\leq 9$  and  $> 9$  (ref) years.

<sup>d</sup> Unemployment: yes, no (ref).

<sup>e</sup> Disposable monthly household income:  $< 9,000$  and  $\geq 9,000$  SEK (ref).

to violence in another home or the neighborhood, at school or in the work place, and in a public place showed no differences between the two groups of women. Exposure to violence in “other” settings (not further specified) was also significantly higher among foreign-born women (Table 4).

## Discussion

These findings show that foreign-born women reported significantly greater exposure to both perceived threat of

violence and physical violence than did Swedish-born women. Foreign-born women exposed to physical violence originated primarily from middle/low-income countries (versus high-income countries). After adjusting for background factors, the relationship between foreign-born status and perceived threat of violence remained significant, whereas exposure to physical violence was largely attributable to background factors, such as low disposable household income. Foreign-born women reported twice as much exposure to physical violence in the home compared with Swedish-born women, and violence in the home was the most frequently reported setting for violence exposure among foreign-born women.

The current results agree with previous research showing that foreign-born women are more at risk of exposure to interpersonal violence compared with native-born women (Abu-Ras, 2007; Jin & Keat, 2009; Raj & Silverman, 2003). It may be noted that the current survey did not include information about the perpetrator of the violence. Thus, the type of interpersonal violence reported in the current results is unknown, and it is unclear what proportion of the reported violence may be attributable to family/intimate partner violence and what proportion may be attributable to community violence, for example, assault in a public place (Krantz & Garcia-Moreno, 2005). However, accumulated evidence suggests that women are more likely to be exposed to family/partner violence than to community violence as such (Krantz & Garcia-Moreno, 2005). In this regard, it may be noted that in the fully adjusted multivariate models (Table 3), marriage or cohabitation was the strongest predictor per se of both perceived threat of violence and exposure to physical violence, thus providing some support for the notion that family or intimate partner violence may be implicated. Although the frequency of violence exposure in the home setting reported by the foreign-born women in our study might indirectly suggest the occurrence of male-to-female family/partner violence, it cannot be excluded that other persons in the home, including females, may have acted as perpetrators. Nevertheless, according to Raj and Silverman (2003), intimate partner violence is the most common form of interpersonal

**Table 4**  
Settings for Exposure to Threat of Violence and Physical Violence Among Swedish-Born and Foreign-Born People Aged 18–64 Years<sup>a</sup>

	Swedish Born n (%)	Foreign Born n (%)	$\chi^2$	p-Value <sup>b</sup>
<b>In the home</b>				
No	9,391 (98.8)	2,013 (98.0)	10.22	<0.001
Yes	110 (1.2)	42 (2.0)		
Total	9,501	2,055		
<b>In another home/the neighborhood</b>				
No	9,466 (99.6)	2,043 (99.5)	1.02	0.31
Yes	36 (0.4)	11 (0.5)		
Total	9,502	2,054		
<b>At work/at school</b>				
No	9,370 (98.6)	2,028 (98.7)	0.07	0.79
Yes	132 (1.4)	27 (1.3)		
Total	9,502	2,055		
<b>In a public place<sup>c</sup></b>				
No	9,416 (99.1)	2,035 (99.0)	0.09	0.77
Yes	86 (0.9)	20 (1.0)		
Total	9,502	2,055		
<b>Other place</b>				
No	9,465 (99.6)	2,023 (98.4)	40.1	<0.001
Yes	36 (0.4)	32 (1.6)		
Total	9,501	2,055		

<sup>a</sup> Data obtained from the Public Health Survey in Scania, 2004 ( $n = 11,556$ ).

<sup>b</sup> Analysis conducted by  $\chi^2$  test.

<sup>c</sup> In a public place, such as an amusement park, train, bus, or metro (as explained in the 2004 Public Health Survey questionnaire).

violence against foreign-born women, and the probable determinant of this phenomenon is social isolation. Thus, Raj and Silverman (2003) found that women with no extended family in the new country had a three times greater risk of being abused by their partner than other women.

Although social isolation might be an important factor contributing to greater rates of violence in foreign-born women, foreign birth per se was not significant predictor of exposure to physical violence in the fully adjusted model (Table 3). In contrast, exposure to physical violence was significantly related to younger age, being married/cohabiting, and low disposable household income. Foreign-born women reported significantly lower income than did Swedish-born women. Previous research suggests that poverty is an important determinant of interpersonal violence against women (De Jesus, 2009); more specifically, intimate partner violence (Campbell et al., 2002; Jewkes, 2002), because of the stress related to poverty as well as the fact that poorer men are less capable of reducing stress (Steinmetz, 1987; Straus, Gelles, & Steinmetz, 1980). In families with low disposable income, foreign-born women are more often financially dependent on their husbands (Kasturirangan, Krishnan, & Riger, 2004), owing to their subordinate position, language barriers, lack of education, and work experience (Thapa-Oli et al., 2009). Therefore, the current results suggest that increased risk of violence among foreign-born women may in part be due to their poorer economic status compared with Swedish-born women. Moreover, because of poorer economic status, foreign-born women may also be more likely to reside in socially deprived neighborhoods where rates of crime and interpersonal violence are generally high. The role of neighborhood environment regarding violence against women, however, remains unclear (Frye, Galea, Tracy, Bucciarelli, Putnam, & Wilt, 2008; Rajaratnam, Burke, & O'Campo, 2006). Although in the current study foreign-born women did not more frequently report exposure to violence in the neighborhood compared with Swedish-born women, the possible influence of neighborhood characteristics on violence against foreign-born women requires further investigation.

The current results showing that violence is more common among women from low/middle-income countries, namely, countries with less female empowerment than high-income countries, are in agreement with the notion that poverty is a determinant for interpersonal violence against women more globally (Garcia-Moreno et al., 2006; De Jesus, 2009; Jewkes, 2002). Previous reports show that women with low empowerment, for example, those lacking the means to provide for themselves, are exposed to the most severe and repeated forms of intimate partner violence (Browne & Bassuk, 1997; West, 2004). In many middle/low-income countries, including those represented in this study, women have a more subordinate role in relation to men compared with women in high-income countries. Men's superior status in middle/low-income countries can thus legitimize intimate partner violence (Chang et al., 2009; Jin & Keat, 2009).

Previous research shows that migration may exacerbate controlling behavior in the spouse (Garcia-Moreno et al., 2006) and/or even lead to the initiation of intimate partner violence (Chang et al., 2009; Dasgupta, 2005; Jin & Keat, 2009; Kasturirangan et al., 2004; Krishnan et al., 2010; Thapa-Oli et al., 2009). A change in the power balance may occur within families after migration because foreign-born women are offered the possibility of both education and employment in the new society and are thereby empowered (Kasturirangan et al., 2004).

In contrast, the men may experience loss of authority and status, owing to unemployment, social exclusion, and even social defeat (Cantor-Graae & Selten, 2005; Erman, 2001; Hondagneu-Soletto, 1992; Kibria, 1990), that is, negative experiences that may enhance controlling behavior on the husbands' part and, therefore, explain the increased risk of intimate partner violence among foreign-born women (Jin & Keat, 2009; Krishnan et al., 2010). Although such notions are supported by previous research showing that foreign-born women with lengthier duration of residence more frequently report intimate partner violence (Hyman et al., 2006b), the current study did not show any differences with regard to reported interpersonal violence as such and duration of residence in Sweden.

#### *Methodologic Considerations*

As stated, a limitation in this study is that the results are derived from a broader survey about health, and the questions concerning violence did not include further specification regarding the relationship of the perpetrator of the violence to the victim, or the type, severity, or frequency of the violence that occurred. Consequently, the identity of the perpetrator is entirely unknown. Also, although violence against women most frequently involves male-to-female violence, the extent to which female perpetrators, such as relatives, may have been involved is uncertain. Thus, the current results contribute to the general body of knowledge concerning interpersonal violence towards women rather than the more specific area concerning intimate partner violence. Furthermore, the results are based on self-reported experiences, and the information thus reported is of a subjective nature. The extent to which these self-reports are accurate cannot be validated. The questionnaire was in Swedish; therefore, all respondents were necessarily Swedish speaking. Thus, it is possible that foreign-born persons with poor Swedish language skills and possibly at greater risk of exposure to violence owing to social isolation were de facto excluded from this sample. To the extent that social isolation is an important contributor to interpersonal violence against foreign-born women, the current results underestimate the true magnitude of the problem. Also, we did not examine violence in relation to geographical categorization of country of origin owing to inadequate power. Moreover, the regional subgrouping based on the women's country of birth was rather arbitrary; it was not based on geographic boundaries, and therefore unlikely to be informative about the underlying mechanisms. The study was limited to women aged 18 to 64 years old so we could examine women who are still actively engaged in the workforce. Although the possible contribution of neighborhood characteristics to the current findings of increased interpersonal violence against foreign-born women cannot be excluded, detailed information on neighborhood characteristics was not available. Also, despite evidence linking alcohol consumption to increased risk of interpersonal violence (Jewkes, 2002), further examination of this aspect was not possible because there was insufficient information.

Despite these limitations, the study has a number of strengths. The database is large and population based. Also, the sample is from the region of Scania, which is a well-defined area with a relatively large foreign-born population. Scania is an optimal setting for a study on violence among foreign-born persons, due to the region's concentration of immigrants from low/middle-income countries. Furthermore, the public health survey in Scania is repeated every 4 years, which gives the

database validity and continuity, and the survey is administrated and analyzed at the same institution as this study was conducted. The anonymity implicit in the current survey methodology may encourage disclosure of violence among women who might otherwise fear stigmatization or reprisal. Finally, to our knowledge this is the first population-based study conducted in Sweden concerning exposure to violence against foreign-born women.

### Implications

Increased knowledge is needed concerning interpersonal violence against foreign-born women in Sweden, as well as the underlying causes of such violence in this group of women so that effective prevention can be developed and empowerment and women's status can be increased. The population-based strategy used in the current study represents one possible approach toward gaining an increased understanding of interpersonal violence among foreign-born women; it may be necessary to develop research methodologies more specifically suitable for an examination of the problem, such as a primary focus on women who may be especially at risk. Although qualitative studies may ultimately be more suitable for gaining insight into underlying contributing mechanisms and for obtaining more full disclosure of experiences that may be shameful and distressing, such studies would not provide an adequate estimate of the true magnitude of the problem. Further studies need to combine a variety of methods to provide a comprehensive perspective.

### Conclusion

The relationship shown here between foreign-born status and interpersonal violence draws attention to the possible risks that migration may confer upon women, especially perhaps those who continue to be socioeconomically disadvantaged in their new country of residence. Awareness in the community should be heightened concerning the potential risks for violence among foreign-born women to increase the feasibility of early detection and/or prevention.

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