Gender-based Structural Stigma and Intimate Partner Violence Across 28 Countries: A Population-based Study of Women Across Sexual Orientation, Immigration Status, and Socioeconomic Status

Jillian R. Scheer[1], **John E. Pachankis**[2], **Richard Bränström**[3]

[1]Syracuse University, Syracuse, NY, USA

[2]Yale School of Public Health, New Haven, CT, USA

[3]Karolinska Institutet, Stockholm, Sweden

Abstract

Reducing structural drivers of intimate partner violence (IPV), including gender inequity in education, employment, and health, surrounding women worldwide represents a clear public health priority. Within countries, some women are at disproportionate risk of IPV compared to other women, including sexual minority women, immigrant women, and women in poverty. However, limited research has assessed women's IPV risk and related circumstances, including police involvement following IPV experiences and IPV-related worry, across sexual orientation, immigration status, and socioeconomic status in a population-based survey of women across countries. Further, few studies have examined IPV against minority women as a function of gender-based structural stigma. This study aimed to determine whether gender-based structural stigma is associated with IPV and related circumstances among European women; examine minority-majority IPV disparities; and assess whether structural stigma is associated with IPV disparities. We used the population-based 2012 Violence Against Women Survey (*n* = 42,000) administered across 28 European Union countries: 724 (1.7%) identified as sexual minority, 841 (2.0%) as immigrant, and 2,272 (5.4%) as living in poverty. Women in high gender-based structural stigma countries had a greater risk of past-12-month IPV (AOR: 1.18, 95% CI = 1.04, 1.34) and IPV-related worry (AOR: 1.09, 95% CI = 1.04, 1.15) than women in low structural stigma countries. All minority women were at disproportionate risk of IPV and IPV-related worry compared to majority women. Associations between gender-based structural stigma and IPV and related circumstances differed across minority status. Country-level structural stigma can possibly perpetuate women's risk of IPV and related circumstances. Associations between structural stigma and IPV and related circumstances for sexual minority women, immigrant women, and women in poverty call for research into the IPV experiences of minority populations across structural contexts.

Corresponding Author: Jillian R. Scheer, Syracuse University, Syracuse, NY 13244, USA. jrscheer@syr.edu.

Keywords

gender-based structural stigma; intimate partner violence; sexual minority women; immigrant women; women in poverty

Intimate partner violence (IPV) represents a public health concern with possible geographically contingent determinants (Garcia-Moreno et al., 2006, 2015; Heise, 1998; Heise & Kotsadam, 2015; Jewkes, 2002). Although 35% of women worldwide experience IPV (Garcia-Moreno et al., 2006, 2013, 2015; Heise & Kotsadam, 2015), the prevalence of IPV against women varies between countries (Garcia-Moreno et al., 2006; Heise & Garcia-Moreno, 2002; Heise & Kotsadam, 2015; Kovacs, 2018; Sanz-Barbero et al., 2018). Gender-based structural stigma (i.e., the male-centric ideology, laws, and policies surrounding women that perpetuate gender inequality in some countries more than others) might both perpetuate and protect against women's IPV risk (Heise, 1998; Heise & Kotsadam, 2015; Ivert et al., 2020; Kovacs, 2018; Rahman et al., 2011; Sanz-Barbero et al., 2018; Zapata-Calvente et al., 2019). However, existing research has documented women's risk of IPV as a function of subjective perceptions of gender-based structural stigma (Gracia & Herrero, 2006; Heise & Kotsadam, 2015; Ismayilova, 2015; Zapata-Calvente et al., 2019), and few studies have examined IPV against minority women as a function of gender-based structural stigma (González & Rodríguez-Planas, 2018; Rahman et al., 2011; Raj & Silverman, 2002).

Even within countries, some women are at disproportionate risk of IPV compared to other women, including sexual minority women (Breiding et al., 2013; Edwards et al., 2015; Hughes et al., 2010), immigrant women (Menjívar & Salcido, 2002; Raj & Silverman, 2002; Vives-Cases et al., 2010), and women living in poverty (Ali et al., 2011; Heise & Garcia-Moreno, 2002). However, sexual orientation, immigration status, and socioeconomic status disparities in risk of IPV and related circumstances (i.e., police non-involvement following IPV experiences and IPV-related worry) have never been examined using a population-based sample of women across countries. It also remains unknown whether gender-based structural stigma more strongly influences IPV risk and related circumstances among minority women than majority women.

This study used the 2012 Violence Against Women Survey (European Union Agency for Fundamental Rights, 2014a), a large interviewer-based population-based study of women, including comprehensive assessments of multiple minority statuses and women's IPV risk and related circumstances. We linked this survey to an objective country-level index of gender-based structural stigma. The first aim of this study was to examine whether gender-based structural stigma was associated with IPV risk and related circumstances among women. This aim extends previous research into the association between country-level gender-based structural stigma and women's IPV (Heise & Kotsadam, 2015; Herrero et al., 2017; Ivert et al., 2020; Sanz-Barbero et al., 2018; Zapata-Calvente et al., 2019) by combining a comprehensive index of gender-based structural stigma (i.e., the Gender Equality Index [GEI]; European Institute for Gender Equality, 2017) with a larger set of IPV-related outcomes than previously examined, including IPV experiences from past and current partners, police non-involvement following IPV experiences, and IPV-related worry,

in the context of several individual- and country-level covariates. The second aim of this study was to assess women's IPV risk and related circumstances across sexual orientation, immigration status, and socioeconomic status—the first examination of such disparities in IPV and related circumstances in a population-based survey of women across countries. The final aim of this study was to assess associations between gender-based structural stigma in each country and women's IPV risk and related circumstances across minority and majority groups, also making this study the first examination of the association between gender-based structural stigma and minority-majority disparities. Findings have potential to shed light on the wide country-level variation in the structural treatment of women, with implications for women's health.

Methods

Procedures

Between March 2012 and July 2012, as part of the Violence Against Women Survey, interviewer-based and survey assessments of violence were conducted among women living in the 28 European Union Member states. Data collection was overseen by the European Union Agency for Fundamental Rights and Ipsos Market & Opinion Research International, in partnership with the European Institute for Crime Prevention and Control, an affiliate of the United Nations Interregional Crime and Justice Research Institute. In parallel, an expert from each national research agency and a team of linguists translated the English-language master questionnaire into 27 languages. The two translations were merged and the national research agencies made all necessary final adjustments.

Face-to-face interviews were conducted by trained female interviewers and held in the respondent's home or in another place of the respondent's choosing. Following face-to-face interviews, participants were provided with a self-report questionnaire, which offered anonymity when disclosing violence (European Union Agency for Fundamental Rights, 2014a). Eligibility criteria for interviewers included identifying as a woman and having experience of random probability survey work for at least three months. Interviewers were required to attend a two-day training delivered by trauma-informed service providers and non-governmental organizations to ensure that interviews were conducted in a sensitive and confidential manner. During this training, interviewers were given guidelines for managing participants in distress, considering participant safety, and rescheduling or discontinuing an interview in the event of participant or interviewer distress. Fieldwork coordinators contacted interviewers regularly to inquire about the nature of the interviews. In addition, interviewers were provided with local and national domestic violence and mental health resources for participants who reported ongoing violence or were in acute distress (European Union Agency for Fundamental Rights, 2014a).

Each participant was assigned a unique identification number to protect their confidentiality. The database linking participant contact information and unique identification numbers were kept separate from study data. To ensure quality data collection, validity checks (e.g., fieldworkers who monitored interviewers) were performed on at least 10% of all interviews. In countries where paper questionnaires were used, all questionnaires were checked for completeness and accuracy. Participants were contacted to complete any

missing information. In a small number of cases, questionnaires were discarded because of a large amount of missing information or apparent inconsistencies. Following data collection, the data transfer and storage processes were compiled by Ipsos Market & Opinion Research International's quality accreditation team.

Participants

Respondents were selected using random probability sampling, whereby sampling frames (e.g., electoral districts, population registers, census enumeration areas) ensured that every eligible female resident of their respective country had a reasonable chance of participating. Certain populations, such as those who were institutionalized or homeless, were excluded. One person was interviewed per household. Eligibility criteria included identifying as a woman between 18 and 74 years of age, living in the European Union, and speaking at least one of the official languages of the participant's country of current residence. Less than 1.0% of people contacted were unable to participate because they did not speak one of the official languages.

A total of 42,000 women completed the interviews, with 1,500 participants from each country. Response rate across countries ranged from 18.5% (in Luxembourg) to 84.0% (in Hungary). The overall total response rate was 42.1% (European Union Agency for Fundamental Rights, 2014a).

Structural Stigma Variables

Gender-based structural stigma.—We assessed gender-based structural stigma using the 2012 GEI (European Institute for Gender Equality, 2017), an index of the gender gap (i.e., differences between women and men) in six aggregated political and public policy domains: work, money, knowledge, time, power, and health. The GEI ranges from 0 (*complete gender inequality*) to 100 (*complete gender equality*). We recoded the GEI such that higher scores represent greater gender-based structural stigma (i.e., gender inequality).

IPV and Related Circumstances Variables

IPV.—Using interviewer-based assessments, the Violence Against Women Survey asked women about physical or sexual IPV exposure (14 items) over the past 12 months from a current or previous partner. An example item assessing physical IPV includes, "In the past 12 months, how often has your current or previous partner tried to suffocate you or strangle you?" An example item assessing sexual IPV includes, "In the past 12 months, how often has your current or previous partner forced you into sexual intercourse by holding you down or hurting you in some way?" Response options for physical or sexual IPV ranged from 0 (*Never*) to 3 (*6 or more times*). Two dichotomous variables (0 = *No experience of past-12-month IPV*, 1 = *Any past-12-month IPV*) were created, one for IPV from a current partner and one for IPV from a previous partner.

Police non-involvement following the most serious incident of IPV.—The survey assessed whether police knew about the most serious incident of IPV among women who endorsed any IPV from a current or previous partner during the past 12 months (e.g., "Did

the police come to know about the incident?"). Response options were dichotomous (0 = *Yes*, 1 = *No*).

Worrying about IPV.—The survey assessed whether women reported worrying about IPV from a current or previous partner in the past 12 months (2 items; e.g., "How often in the past 12 months have you worried that your current or previous partner might hurt you?"). Response options ranged from 0 (*Never*) to 3 (*All the time*). Two dichotomous variables (0 = *No*, 1 = *Yes*) were created to indicate worrying about IPV from a current or previous partner in the past 12 months.

Covariates

Sociodemographic covariates.—Respondents reported their age, relationship status (i.e., in a relationship vs single), and type of living area (i.e., urban vs rural). Respondents also reported their sexual orientation (i.e., heterosexual vs non-heterosexual), immigration status in current country of residence (i.e., non-immigrant vs immigrant), and socioeconomic status (i.e., not living in poverty vs living in poverty), which also served as covariates, except in minority-specific models (Models 2–7), where they served as indicators of these respective minority statuses. Socioeconomic status was assessed through two questions: (a) their household's net combined monthly/annual income on a scale of items that translated into 1 (*under lowest quartile*) to 4 (*above highest quartile*) and (b) how secure they currently feel about their household income on a scale from 1 (*living comfortably on present income*) to 4 (*finding it very difficult on present income*). To calculate socioeconomic status, the respondent's net combined monthly/annual household income was dichotomized (0 = above lowest quartile; 1 = under lowest quartile). Felt economic security was dichotomized as finding it not very difficult on present income (0) versus finding it very difficult on present income (1). A composite score of socioeconomic status was created to indicate participants who earned under the lowest quartile and whose current felt economic security was "very difficult." Socioeconomic status was dichotomized as not living in poverty (0) versus living in poverty (1).

Country-level covariate.—Each country's 2012 gross domestic product per capita in U.S. dollars (The World Bank, 2018) served as a Level 2 covariate in all models given that previous studies have demonstrated a relationship between country-level socioeconomic development and violence against women (Heise & Kotsadam, 2015).

Statistical Analyses

In all analyses, data were weighted to adjust for: (a) selection probabilities (e.g., ratio of sampling unit size to population size), (b) non-response using demographic profile of the respondents as compared to population (i.e., respondents' age and type of living area), and (c) target population size in each country (i.e., the number of women ages 18–74 in each country multiplied by the ratio of the number of interviews conducted in the country to the total number of interviews conducted; European Union Agency for Fundamental Rights, 2014b). There was some variation in method of calculating weights between countries because of differences in the availability of background demographic information and sampling method.

First, bivariate analyses were conducted to examine minority-majority differences in demographic characteristics. We used one-way analysis of variance for age and chi-square tests for dichotomous variables (i.e., relationship status and type of living area).

Second, we estimated the association between gender-based structural stigma and each outcome while controlling for Level 1 and Level 2 covariates. We used multilevel logistic regression models to account for the nested data structure (i.e., participants within countries) and binary outcome distribution. Intraclass correlations (ICCs) ranged from .060, $p <$ .001 for worrying about IPV from a previous partner to .161, $p < .05$ for police non-involvement following the most serious incident of IPV from a current partner, indicating that a multilevel model was appropriate for each outcome (Kahn, 2011). Level 1 variables included covariates (i.e., age, sexual orientation, immigration status, relationship status, socioeconomic status, and type of living area) and outcomes. Level 2 variables included gender-based structural stigma and gross domestic product as a covariate. Fixed effects were estimated using maximum likelihood parameter estimation.

Third, we conducted logistic regression models to examine differences in outcomes between minority and majority women. For each model, the reference group was the majority group. All models adjusted for individual-level age, relationship status, and type of living area. For the sexual orientation-specific model (Model 2), we also adjusted for individual-level immigration status and socioeconomic status. For the immigration status-specific model (Model 3), we also adjusted for individual-level sexual orientation and socioeconomic status. For the socioeconomic status-specific model (Model 4), we also adjusted for individual-level sexual orientation and immigration status.

Fourth, we tested cross-level interactions (Models 5–7) between gender-based structural stigma and minority status to examine whether gender-based structural stigma was more strongly associated with risk of outcomes among each minority group compared to the respective majority group.

Sample sizes for each model depended on the amount of missing data for that model. Missing data for explanatory variables and covariates ranged from 0 for immigration status to 1,357 (3.2%) for socioeconomic status. There were no missing data for outcomes. We used complete case analysis. Preliminary descriptive analyses indicated that although the predictor variable (i.e., gender-based structural stigma) was normally distributed, several of the outcomes were skewed. Histograms and Kolmogorov-Smirnov test statistics were used to determine normality of the residuals of the outcomes (Draper & Smith, 1998). Results indicated that the residuals of the outcomes were normally distributed.

Sensitivity analyses using only the sample of women who reported violence from male perpetrators, as opposed to female or male and female perpetrators, were conducted and yielded similar effects as when using the full sample of women exposed to violence from female and male perpetrators, as reported above.

A post hoc adjustment of p-values using the Benjamini–Hochberg correction (Benjamini & Hochberg, 1995) was applied to control the false-discovery rate at 5% for all models. All models that were significant at $p < .05$ remained significant at $p < .05$ post-adjustment.

Results

Table 1 shows descriptive statistics for the total sample ($n = 42,000$) and stratified by minority status. In the sample, 724 (1.7%) identified as sexual minority, 841 (2.0%) as immigrant, and 2,272 (5.4%) reported living in poverty.

Gender-based Structural Stigma and IPV and Related Circumstances

Women living in high gender-based structural stigma countries reported greater odds of IPV from a current partner (AOR: 1.18, 95% CI = 1.04, 1.34) and worrying about IPV from a current partner (AOR: 1.09, 95% CI = 1.04, 1.15) than women living in low gender-based structural stigma countries (Model 1; refer to Table 2). Gender-based structural stigma was not associated with IPV from a previous partner, police non-involvement following the most serious incident of IPV from a current or previous partner, or worrying about IPV from a previous partner.

IPV and Related Circumstances Between Minority and Majority Women

Sexual minority women reported greater odds of IPV from a current partner (AOR: 8.13, 95% CI = 5.89, 11.21), IPV from a previous partner (AOR: 14.20, 95% CI = 9.59, 21.03), worrying about IPV from a current partner (AOR: 4.89, 95% CI = 3.36, 7.13), and worrying about IPV from a previous partner (AOR: 1.84, 95% CI = 1.43, 2.36) than heterosexual women (refer to Table 3). Sexual minority women did not report greater odds of police non-involvement following the most serious incident of IPV from a previous partner than heterosexual women. Compared to heterosexual women, sexual minority women reported lower odds of police non-involvement following the most serious incident of IPV from a current partner (AOR: .09, 95% CI = .03, .27). In other words, sexual minority women reported greater odds of police involvement following the most serious incident of IPV from a current partner compared to heterosexual women.

Immigrant women reported greater odds of IPV from a current partner (AOR: 2.19, 95% CI = 1.62, 2.97), IPV from a previous partner (AOR: 2.23, 95% CI = 1.51, 3.29), worrying about IPV from a current partner (AOR: 2.22, 95% CI = 1.47, 3.36), and worrying about IPV from a previous partner (AOR: 1.62, 95% CI = 1.23, 2.13) than non-immigrant women. Immigrant women did not report greater odds of police non-involvement following the most serious incident of IPV from a current or previous partner than non-immigrant women.

Women living in poverty reported greater odds of IPV from a current partner (AOR: 3.53, 95% CI = 2.87, 4.34), IPV from a previous partner (AOR: 3.74, 95% CI = 2.97, 4.70), worrying about IPV from a current partner (AOR: 4.15, 95% CI = 3.20, 5.39), and worrying about IPV from a previous partner (AOR: 2.61, 95% CI = 2.24, 3.04) than women not living in poverty. Women living in poverty did not report greater odds of police non-involvement following the most serious incident of IPV from a previous partner than women not living in poverty. Compared to women not living in poverty, women living in poverty reported lower odds of police non-involvement following the most serious incident of IPV from a current partner (AOR: .24, 95% CI = .11, .56). In other words, women living in poverty reported

greater odds of police involvement following the most serious incident of IPV from a current partner compared to women not living in poverty.

Gender-based Structural Stigma and the Minority-Majority Disparity in IPV and Related Circumstances

The association between gender-based structural stigma and worrying about IPV from a previous partner was stronger for sexual minority women (AOR: 1.53, 95% CI = 1.07, 2.18) compared to heterosexual women (Model 5; refer to Table 4). The slope of the association between gender-based structural stigma and worrying about IPV from a previous partner for sexual minority women was not significant [$b = .21$ ($SE = .14$)] whereas the slope for heterosexual women was negative and significant [$b = -.09$ ($SE = .04$)]. The interaction between gender-based structural stigma and sexual orientation was not associated with IPV from a current or previous partner, police non-involvement following the most serious incident of IPV from a current or previous partner or worrying about IPV from a current partner.

The interaction between gender-based structural stigma and immigration status was not associated with IPV from a current or previous partner, police non-involvement following the most serious incident of IPV from a current or previous partner or worrying about IPV from a current or previous partner (Model 6).

The association between gender-based structural stigma and police non-involvement following the most serious incident of IPV from a current partner was stronger for women living in poverty (AOR: 2.77, 95% CI = 1.48, 5.18) compared to women not living in poverty (Model 7). The slope of the association between gender-based structural stigma and police non-involvement following the most serious incident of IPV from a current partner for both women living in poverty and not living in poverty was not significant [$b = -.13$ ($SE = .65$), versus $b = -.36$ ($SE = .25$), respectively]. The interaction between gender-based structural stigma and socioeconomic status was not associated with police non-involvement following the most serious incident of IPV from a previous partner or worrying about IPV from a current partner.

The association between gender-based structural stigma and IPV from a current partner was weaker for women living in poverty (AOR: .83, 95% CI = .77, .90) compared to women not living in poverty. The slope of the association between gender-based structural stigma and IPV from a current partner for women living in poverty was not significant [$b = .22$ ($SE = .16$)] whereas the slope for women not living in poverty was positive and significant [$b = .18$ ($SE = .06$)]. The association between gender-based structural stigma and IPV from a previous partner was also weaker for women living in poverty (AOR: .81, 95% CI = .70, .94) compared to women not living in poverty. The slope of the association between gender-based structural stigma and IPV from a previous partner for both women living in poverty and not living in poverty was not significant [$b = -.14$ ($SE = .15$), $b = -.01$ ($SE = .09$), respectively]. Finally, the association between gender-based structural stigma and worrying about IPV from a previous partner was weaker for women living in poverty (AOR: .76, 95% CI = .65, .89) compared to women not living in poverty. The slope of the association between gender-based structural stigma and worrying about IPV from a previous

partner for women living in poverty was negative and significant [$b = -.29$ ($SE = .07$)] whereas the slope women not living in poverty was not significant [$b = -.05$ ($SE = .05$)].

Discussion

Consistent with prior findings (Gracia & Merlo, 2016; Ivert et al., 2020; Sanz-Barbero et al., 2018; Zapata-Calvente et al., 2019), the present study demonstrated an inconsistent association between gender-based structural stigma and women's IPV risk and related circumstances. This study is the first to our knowledge to find that gender-based structural stigma is associated with women's IPV-related worry. This study is also the first to our knowledge to document IPV disparities between minority-majority women in a population-based survey of women across countries.

We found that all minority women were at disproportionate risk of IPV and related worry compared to majority women. Prior research suggests that minority women's disproportionate previous experiences of IPV, childhood abuse, past trauma, and witnessing parental violence; difficulty integrating into the labor market; economic constraints; disagreements with their partners about gender roles; partners' substance use, feelings of disempowerment, and dominance in decision-making; and lack of social support represent psychosocial factors which may contribute to minority women's elevated risk of IPV experiences and IPV-related worry compared to majority women (Ahonen et al., 2010; Al-Tawil, 2012; Colorado-Yohar et al., 2016; Denham et al., 2007; Lewis et al., 2017; Widom, 2017). In addition, compared to heterosexual women and women not living in poverty, sexual minority women and women living in poverty were less likely to report police non-involvement (i.e., were more likely to report police involvement) following IPV experiences, respectively. Our findings also suggest that compared to non-immigrant women, immigrant women were not more likely to report police non-involvement following IPV experiences, possibly due to structural factors that determine policing around IPV, fears of reporting, and community access to police, such as mandatory-arrest laws (Alaggia et al., 2012; Linos et al., 2014), rather than minority-specific determinants of reporting.

Our findings demonstrated a significant and positive association between gender-based structural stigma and IPV from a current partner and worrying about IPV from a current partner and a non-significant association between gender-based structural stigma and IPV from a previous partner and worrying about IPV from a previous partner. It is possible that the non-significant relationship between gender-based structural stigma and IPV and related worry from a previous partner could be explained, in part, by persistent coping strategies employed in response to previous IPV (e.g., minimization, rationalization, denial, or self-blame) regardless of structural context that perhaps have not had sufficient time to develop in response to current IPV and related worry. Future research should also consider investigating potential moderators of the association between gender-based structural stigma and IPV from a previous partner and worrying about IPV from a previous partner to help clarify for whom this association might be present.

This study's simple slopes analysis, where the slope of the association between gender-based structural stigma and worrying about IPV from a previous partner for sexual minority

women was not significant, whereas the slope for heterosexual women was negative and significant, revealed that sexual minority women living in high gender-based structural stigma countries might be protected from IPV-related worry, potentially due to living outside heteronormative gender roles (Hassouneh & Glass, 2008). In addition, our findings indicated that while the association between gender-based structural stigma and police not knowing about the most serious incident of IPV from a current partner was stronger for women living in poverty compared to women not living in poverty (Model 7), the slope of the association between gender-based structural stigma and police not knowing about the most serious incident of IPV from a current partner for both women living in poverty and not living in poverty was not significant. This is likely due to Simpson's paradox (Blyth, 1972; Julious & Mullee, 1994), which occurs when a statistical finding appears in an aggregate analysis yet disappears (or reverses) in disaggregated data (Chan & Redelmeier, 2012).

Given that the interaction between gender-based structural stigma and immigration status was not associated with IPV from a current or previous partner, police non-involvement following the most serious incident of IPV from a current or previous partner or worrying about IPV from a current or previous partner, increased risk of IPV among immigrant women seems to be similarity elevated across all countries. That is, there seems to be no difference in the association of gender-based structural stigma on IPV risk and related circumstances by immigration status. It is possible that gender-related aspects of one's home country and culture might outweigh the influence of structural stigma in one's current country to predict immigrant women's IPV risk (Wheeler et al., 2010). Our findings also suggest that there appears to be no indication that immigrant women are more reluctant to involve the police following the most serious incident of IPV from a current or previous partner; and this seems to be true across structural contexts. Future research should build on these findings by examining whether gender-based structural stigma and *satisfaction* with police involvement following IPV experiences differ across immigration status.

Our findings are also among the first to demonstrate an unexpected protective association between gender-based structural stigma and IPV risk from a current or previous partner and worry about IPV from a previous partner among women living in poverty. It is possible that women living in poverty and in countries with high gender-based structural stigma might be more likely to endorse norms condoning violence against women (i.e., "wife-beating") and justifying men's authority over women, and as a result, might be less inclined to report or recognize IPV dynamics (Heise & Kotsadam, 2015; Uthman et al., 2010; Zapata-Calvente et al., 2019). We build on prior literature by documenting that exposure to gender-based structural stigma might interfere with police involvement following IPV experiences from a current partner particularly among women living in poverty. Additional prospective research examining the influence of norms about acceptance and disclosure of IPV among women living in poverty and in countries with high gender-based structural stigma is warranted. Further, our simple slopes analysis of the association between gender-based structural stigma and police non-involvement following the most serious incident of IPV from a current partner for both women living in poverty and not living in poverty might set a methodological example of how disentangling aggregate and disaggregate processes may be helpful in determining accurate estimates of the association between gender-based structural

stigma and police non-involvement following IPV experiences among women across poverty levels.

The present study's findings should be considered within the context of several limitations. The study's cross-sectional design does not allow us to establish causality between gender-based structural stigma and IPV and related circumstances. In addition, despite several methodological strengths intended to encourage accurate reporting (e.g., female interviewers; European Union Agency for Fundamental Rights, 2014a), potential misclassification and under-reporting of minority status, as well as IPV and related circumstances might have biased results. Potential misclassification and under-reporting of minority identities and IPV experiences might be confounded with our primary predictor, gender-based structural stigma (Heise & Kotsadam, 2015; Uthman et al., 2010). Future research that examines within-country variation in gender-based structural stigma, such as the impact of municipality—rather than country-level structural stigma—on women's risk of IPV and related circumstances, would allow examination of more proximal structural climates and IPV risk.

Further, this study's findings point to the importance of examining mechanisms through which gender-based structural stigma might affect women's risk of IPV and related circumstances and might explain IPV disparities between minority-majority women. For example, evidence suggests that environmental factors that might influence women's IPV risk include neighborhood social disorganization and density of alcohol outlets (Cunradi, 2010). Women living in poverty may develop sensitization to violence (e.g., personal and property crime) as well as report limited access to collective resources, such as others' willingness to intervene in cases of IPV (i.e., collective efficacy; Ross & Jang, 2000). Poverty and neighborhood disadvantage may lead to joblessness, substance use, and residential mobility, all of which are associated with higher rates of IPV and fear of violence (Guo et al., 2018; Kiss et al., 2012). Further, women's attitudes toward traditional gender roles, substance use among those who perpetrate and experience IPV, and perpetrators' feelings toward their partner's earnings might influence women's IPV risk (González & Rodríguez-Planas, 2018; Hassouneh & Glass, 2008; Herrero et al., 2017; Ismayilova, 2015; Zapata-Calvente et al., 2019). Future studies should consider these factors in light of country-level variation in the structural treatment of women across minority status.

The present study provides novel evidence of the association between gender-based structural stigma and IPV-related circumstances, including police non-involvement and IPV-related worry; of women's IPV risk and related circumstances across sexual orientation, immigration status, and socioeconomic status using a population-based survey of women across 28 countries; and of the association between gender-based structural stigma and minority-majority IPV disparities among women. We found that gender'-based structural stigma might both protect and exacerbate women's risk of IPV and related circumstances. Negative associations between structural stigma and IPV and related circumstances, such as IPV-related worry, for women in poverty call for research into the IPV experiences of minority populations across structural contexts. Findings highlight the need to reduce structural drivers of IPV against all women.

Acknowledgments

Author Biographies

Jillian R. Scheer, PhD, is an assistant professor of Psychology at Syracuse University and a licensed Counseling Psychologist. Dr. Scheer's research focuses on identifying trauma- and stigma-related stressors facing racially and ethnically diverse sexual and gender minorities and understanding cognitive, affective, and behavioral pathways through which trauma and stigma-related stress impact diverse sexual and gender minorities' health.

John E. Pachankis, PhD, is the Susan Dwight Bliss associate professor of Public Health at Yale. He directs Yale's LGBTQ Mental Health Initiative with the goal to bring effective mental health treatments to LGBTQ people in need. He received his PhD in clinical psychology from the State University of New York at Stony Brook in 2008.

Richard Bränström, PhD, is an associate professor at the Karolinska Institutet, Sweden. His research is focused on understanding how social, psychological, and contextual factors influence the health of lesbian, gay, bisexual, and transgender (LGBT) individuals, using social epidemiological, psychological, and socioecological methods.

References

Ahonen EQ, López-Jacob MJ, Vázquez ML, Porthé V, Gil-González D, García AM, Ruiz-Frutos C, Benach J, Benavides FG, & Benavides FG (2010). Invisible work, unseen hazards: The health of women immigrant household service workers in Spain. American Journal of Industrial Medicine, 53(4), 405–416. [PubMed: 19479889]

Alaggia R, Regehr C, & Jenney A (2012). Risky business: An ecological analysis of intimate partner violence disclosure. Research on Social Work Practice, 22(3), 301–312.

Ali TS, Asad N, Mogren I, & Krantz G (2011). Intimate partner violence in urban Pakistan: Prevalence, frequency, and risk factors. International Journal of Women's Health, 3, 105–115.

Al-Tawil NG (2012). Association of violence against women with religion and culture in Erbil Iraq: A cross-sectional study. BMC Public Health, 12(1), 1–7. [PubMed: 22214479]

Benjamini Y, & Hochberg Y (1995). Controlling the false discovery rate: A practical and powerful approach to multiple testing. Journal of the Royal Statistical Society. Series B, Statistical Methodology, 57(1), 289–300.

Blyth CR (1972). On Simpson's paradox and the sure-thing principle. Journal of the American Statistical Association, 67(338), 364–366.

Breiding MJ, Chen J, & Walters ML (2013). The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Findings of victimization by sexual orientation. National Center for Injury Prevention and Control.

Chan WK, & Redelmeier DA (2012). Simpson's paradox and the association between vitamin D deficiency and increased heart disease. The American Journal of Cardiology, 110(1), 143–144. [PubMed: 22464214]

Colorado-Yohar SM, Agudelo-Suárez AA, Huerta JM, & Torres-Cantero AM (2016). Intimate partner violence and its associated factors in a sample of Colombian immigrant population in Spain. Journal of Immigrant and Minority Health, 18(4), 904–912. [PubMed: 26670923]

Cunradi CB (2010). Neighborhoods, alcohol outlets and intimate partner violence: Addressing research gaps in explanatory mechanisms. International Journal of Environmental Research and Public Health, 7(3), 799–813. [PubMed: 20617004]

Denham AC, Frasier PY, Hooten EG, Belton L, Newton W, Gonzalez P, Munni B, & Campbell MK (2007). Intimate partner violence among Latinas in eastern North Carolina. Violence Against Women, 13(2), 123–140. [PubMed: 17251501]

Draper NR, & Smith H (1998). Applied regression analysis (3rd ed.). Wiley.

Edwards KM, Sylaska KM, & Neal AM (2015). Intimate partner violence among sexual minority populations: A critical review of the literature and agenda for future research. Psychology of Violence, 5(2), 112–121.

European Institute for Gender Equality. (2017). Gender Equality Index 2017: Measuring gender equality in the European Union 2005–2015. https://eige.europa.eu/rdc/eige-publications/gender-equality-index-2017-measuring-genderequality-european-union-2005-2015-report.

European Union Agency for Fundamental Rights. (2014a). Violence against women: An EU-wide survey—Main results report. Publications Office of the European Union.

European Union Agency for Fundamental Rights. (2014b). Violence against women: An EU-wide survey—Survey methodology, sample and fieldwork. Publications Office of the European Union.

Garcia-Moreno C, Jansen HA, Ellsberg M, Heise L, & Watts CH (2006). Prevalence of intimate partner violence: Findings from the WHO multi-country study on women's health and domestic violence. The Lancet, 368(9543), 1260–1269.

García-Moreno C, Pallitto C, Devries K, Stöckl H, Watts C, & Abrahams N (2013). Global and regional estimates of violence against women: Prevalence and health effects of intimate partner violence and non-partner sexual violence. World Health Organization.

García-Moreno C, Zimmerman C, Morris-Gehring A, Heise L, Amin A, Abrahams N, Montoya O, Bhate-Deosthali P, Kilonzo N, & Watts C (2015). Addressing violence against women: A call to action. The Lancet, 385(9978), 1685–1695.

González L, & Rodríguez-Planas N (2018). Gender norms and intimate partner violence. Economics Working Paper Series 1620. Department of Economics and Business, Universitat Pompeu Fabra. https://ideas.repec.org/p/upf/upfgen/1620.html.

Gracia E, & Herrero J (2006). Acceptability of domestic violence against women in the European Union: A multilevel analysis. Journal of Epidemiology & Community Health, 60(2), 123–129. [PubMed: 16415260]

Gracia E, & Merlo J (2016). Intimate partner violence against women and the Nordic paradox. Social Science & Medicine, 157, 27–30. [PubMed: 27058634]

Guo M, Duffany KOC, Shebl FM, Santilli A, & Keene DE (2018). The effects of length of residence and exposure to violence on perceptions of neighborhood safety in an urban sample. Journal of Urban Health, 95(2), 245–254. [PubMed: 29541963]

Hassouneh D, & Glass N (2008). The influence of gender role stereotyping on women's experiences of female same-sex intimate partner violence. Violence Against Women, 14(3), 310–325. [PubMed: 18292372]

Heise LL (1998). Violence against women: An integrated, ecological framework. Violence Against Women, 4(3), 262–290. [PubMed: 12296014]

Heise L, & Garcia-Moreno C (2002). Violence by intimate partners. World Report on Violence and Health, 1, 87–113.

Heise LL, & Kotsadam A (2015). Cross-national and multilevel correlates of partner violence: An analysis of data from population-based surveys. The Lancet Global Health, 3(6), e332–e340. [PubMed: 26001577]

Herrero J, Torres A, Rodríguez FJ, & Juarros-Basterretxea J (2017). Intimate partner violence against women in the European Union: The influence of male partners' traditional gender roles and general violence. Psychology of Violence, 7(3), 385–394.

Hughes T, McCabe SE, Wilsnack SC, West BT, & Boyd CJ (2010). Victimization and substance use disorders in a national sample of heterosexual and sexual minority women and men. Addiction, 105(12), 2130–2140. [PubMed: 20840174]

Ismayilova L (2015). Spousal violence in 5 transitional countries: A population-based multilevel analysis of individual and contextual factors. American Journal of Public Health, 105(11), e12–e22.

Ivert AK, Gracia E, Lila M, Wemrell M, & Merlo J (2020). Does country-level gender equality explain individual risk of intimate partner violence against women? A multilevel analysis of individual heterogeneity and discriminatory accuracy (MAIHDA) in the European Union. European Journal of Public Health, 30(2), 293–299. [PubMed: 31549148]

Jewkes R (2002). Intimate partner violence: Causes and prevention. The Lancet, 359(9315), 1423–1429.

Julious SA, & Mullee MA (1994). Confounding and Simpson's paradox. BMJ, 309(6967), 1480–1481. [PubMed: 7804052]

Kahn JH (2011). Multilevel modeling: Overview and applications to research in counseling psychology. Journal of Counseling Psychology, 58(2), 257–271. [PubMed: 21463032]

Kiss L, Schraiber LB, Heise L, Zimmerman C, Gouveia N, & Watts C (2012). Gender-based violence and socioeconomic inequalities: Does living in more deprived neighbourhoods increase women's risk of intimate partner violence? Social Science & Medicine, 74(8), 1172–1179. [PubMed: 22361088]

Kovacs RJ (2018). The macro-level drivers of intimate partner violence: New evidence from a multilevel dataset. Global Public Health, 13(7), 944–956. [PubMed: 28468526]

Lewis RJ, Mason TB, Winstead BA, & Kelley ML (2017). Empirical investigation of a model of sexual minority specific and general risk factors for intimate partner violence among lesbian women. Psychology of Violence, 7(1), 110–119. [PubMed: 28239508]

Linos N, Slopen N, Berkman L, Subramanian SV, & Kawachi I (2014). Predictors of help-seeking behaviour among women exposed to violence in Nigeria: A multilevel analysis to evaluate the impact of contextual and individual factors. Journal of Epidemiology & Community Health, 68(3), 211–217. [PubMed: 24218072]

Menjívar C, & Salcido O (2002). Immigrant women and domestic violence: Common experiences in different countries. Gender & Society, 16(6), 898–920.

Rahman M, Hoque MA, & Makinoda S (2011). Intimate partner violence against women: Is women empowerment a reducing factor? A study from a national Bangladeshi sample. Journal of Family Violence, 26(5), 411–420.

Raj A, & Silverman J (2002). Violence against immigrant women: The roles of culture, context, and legal immigrant status on intimate partner violence. Violence Against Women, 8(3), 367–398.

Ross CE, & Jang SJ (2000). Neighborhood disorder, fear, and mistrust: The buffering role of social ties with neighbors. American Journal of Community Psychology, 28(4), 401–420. [PubMed: 10965384]

Sanz-Barbero B, Corradi C, Otero-García L, Ayala A, & Vives-Cases C (2018). The effect of macrosocial policies on violence against women: A multilevel study in 28 European Countries. International Journal of Public Health, 63(8), 901–911. [PubMed: 30076421]

The World Bank. (2018). GDP per capita. https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2015&name_desc=false&start=1990

Uthman OA, Lawoko S, & Moradi T (2010). The role of individual, community and societal gender inequality in forming women's attitudes toward intimate-partner violence against women: A multilevel analysis. World Health & Population, 12(2), 5–17.

Vives-Cases C, Gil-González D, Ruiz-Pérez I, Escribà-Agüir V, Plazaola-Castaño J, Montero-Piñar MI, & Torrubiano-Domínguez J (2010). Identifying sociodemographic differences in intimate partner violence among immigrant and native women in Spain: A cross-sectional study. Preventive Medicine, 51(1), 85–87. [PubMed: 20362609]

Wheeler K, Zhao W, Kelleher K, Stallones L, & Xiang H (2010). Immigrants as crime victims: Experiences of personal nonfatal victimization. American Journal of Industrial Medicine, 53(4), 435–442. [PubMed: 20196094]

Widom CS (2017). Long-term impact of childhood abuse and neglect on crime and violence. Clinical Psychology: Science and Practice, 24(2), 186–202.

Zapata-Calvente AL, Megías JL, Moya M, & Schoebi D (2019). Gender-related ideological and structural macrosocial factors associated with intimate partner violence against European women. Psychology of Women Quarterly, 43(3), 317–334.

Table 1.

Sample Characteristics by Sexual Orientation, Immigration Status, and Socioeconomic Status in the European Union Agency for Fundamental Rights: Violence Against Women Survey, 2012.

	Total Sample N = 42,000	Sexual Orientation		Immigration Status		Socioeconomic Status	
		Heterosexual n = 40,578 (96.6%)	Sexual Minority n = 724 (1.7%)	Non-immigrant n = 41,161 (98.0%)	Immigrant n = 841 (2.0%)	Not Living in Poverty n = 38,373 (91.4%)	Living in Poverty n = 2,272 (5.4%)
	n (%)[a]	n (%)[a]	n (%)[a]	n (%)[a]	n (%)[a]	n (%)[a]	n (%)[a]
Age, years		$F =$ 123.16***		$F =$ 26.23***		$F =$ 10.23***	
18–24	4,879 (11.6)	4,656 (11.3)	159 (22.0)	4,800 (11.7)	79 (9.4)	4,272 (11.2)	200 (8.8)
25–29	3,609 (8.6)	3,497 (8.5)	75 (10.4)	3,517 (8.6)	92 (10.9)	3,321 (8.7)	166 (7.3)
30–34	4,052 (9.6)	3,903 (9.5)	108 (14.9)	3,916 (9.5)	137 (16.3)	3,718 (9.7)	224 (9.9)
35–39	4,086 (9.7)	3,951 (9.6)	76 (10.5)	3,951 (9.6)	135 (16.1)	3,744 (9.8)	211 (9.3)
40–49	8,484 (20.2)	8,222 (19.9)	148 (20.5)	8,320 (20.3)	164 (19.5)	7,799 (20.4)	471 (20.7)
50–59	7,709 (18.4)	7,518 (18.2)	82 (11.3)	7,552 (18.4)	157 (18.7)	7,095 (18.5)	451 (19.9)
60–74	9,064 (21.6)	8,763 (21.3)	75 (10.4)	8,987 (21.9)	77 (9.2)	8,358 (21.8)	547 (24.1)
Relationship status		$\chi^2 =$ 56.88***		$\chi^2 =$ .05		$\chi^2 =$ 431.94***	
In a relationship	31,222 (74.3)	30,303 (74.7)	451 (62.4)	30,594 (74.4)	459 (74.8)	29,106 (75.9)	1,281 (56.4)
Single	10,723 (25.5)	10,256 (25.3)	272 (37.6)	10,511 (25.6)	158 (25.2)	9,257 (24.1)	991 (43.6)
Type of living area		$\chi^2 =$ 36.43***		$\chi^2 =$ 111.52***		$\chi^2 =$ 16.64***	
Urban	29,226 (69.6)	28,162 (69.7)	577 (80.1)	28,499 (69.7)	727 (86.5)	26,828 (70.2)	1,492 (66.2)
Rural	12,512 (29.8)	12,225 (30.3)	143 (19.9)	12,399 (30.3)	113 (13.5)	11,364 (29.8)	762 (33.8)

Note. Percentages may not equal 100 due to missing data.

[a] Weighted percentages.

*** $p < .001$.

Table 2.

Odds of IPV and Related Circumstances Associated With High Gender-based Structural Stigma among Women in Europe.

	IPV From Current Partner Past-12-month		IPV From Previous Partner Past-12- month		Police Non- involvement Following the Most Serious Incident of IPV From Current Partner Past-12-month		Police Non- involvement Following the Most Serious Incident of IPV From Previous Partner Past-12-month		Worrying About IPV From Current Partner Past-12- month		Worrying About IPV From Previous Partner Past-12- month	
	AOR[a] 95% CI	AOR[a] 95% CI	AOR[a] 95% CI	AOR[a] 95% CI	AOR[a] 95% CI	AOR[a] 95% CI	AOR[a] 95% CI	AOR[a] 95% CI	AOR[a] 95% CI	AOR[a] 95% CI	AOR[a] 95% CI	AOR[a] 95% CI
Model 1												
Sample size	n = 16,858		n = 9,240		n = 467		n = 254		n = 26,948		n = 22,877	
High gender-based structural stigma	1.18**	1.04, 1.34	.97	.82, 1.15	.70	.41, 1.17	1.01	.77, 1.34	1.09***	1.04, 1.15	.93†	.86, 1.01

Note. AOR = Adjusted odds ratio.

Model 1 included the full sample and adjusted for individual-level age, sexual orientation, immigration status, relationship status, socioeconomic status, type of living area, and country-level gross domestic product.

[a]Weighted odds ratios.

†p < .10.

**p < .01.

***p < .001.

Table 3.

Associations Between IPV and Related Circumstances and Sexual Orientation, Immigration Status, and Socioeconomic Status.

	Model 2: Sexual Orientation			Model 3: Immigration Status			Model 4: Socioeconomic Status		
	Descriptive Results		Logistic Regression Results	Descriptive Results		Logistic Regression Results	Descriptive Results		Logistic Regression Results
	Heterosexual	Sexual Minority		Non-immigrant	Immigrant		Not Living in Poverty	Living in Poverty	
	n (%)[a]	n (%)[a]	AOR (95% CI)	n (%)[a]	n (%)[a]	AOR (95% CI)	n (%)[a]	n (%)[a]	AORA (95% CI)
IPV from current partner past-12-month	1,113 (6.0)	69 (37.5)	8.13 *** (5.89, 11.21)	1,133 (6.1)	61 (16.2)	2.19 *** (1.62, 2.97)	1,000 (5.6)	133 (18.1)	3.53 *** (2.87, 4.34)
IPV from previous partner past-12-month	861 (8.6)	88 (60.3)	14.20 *** (9.59, 21.03)	907 (9.0)	49 (23.8)	2.23 *** (1.51, 3.29)	779 (8.2)	147 (25.7)	3.74 *** (2.97, 4.70)
Police non-involvement following the most serious incident of IPV from current partner past-12-month	482 (94.1)	13 (59.1)	(.03, .27)	471 (92.4)	26 (96.3)	1.44 (.21, 10.01)	417 (93.7)	53 (82.8)	.24 *** (.11, .56)
Police non-involvement following the most serious incident of IPV from previous partner past-12-month	150 (57.9)	8 (53.3)	1.05 (.28, 3.94)	155 (57.4)	3 (75.0)	2.47 (.13, 46.89)	127 (57.0)	21 (52.5)	2.15 † (.88, 5.29)
Worrying about IPV from current partner past-12-month	521 (1.8)	33 (7.6)	4.89 *** (3.36, 7.13)	533 (1.8)	27 (4.4)	2.22 *** (1.47, 3.36)	453 (1.6)	70 (5.8)	4.15 *** (3.20, 5.39)
Worrying about IPV from previous partner past-12-month	1,772 (7.1)	75 (12.9)	1.84 *** (1.43, 2.36)	1,806 (7.1)	61 (11.7)	1.62 *** (1.23, 2.13)	1,568 (6.7)	232 (15.4)	2.61 *** (2.24, 3.04)

Note. AOR = Adjusted odds ratio.

All models adjusted for individual-level age, relationship status, and type of living area. Model 2 also adjusted for immigration status and socioeconomic status. Model 3 also adjusted for sexual orientation and socioeconomic status.

Model 4 also adjusted for sexual orientation and immigration status.

[a] Weighted percentages.

† p < .10.

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

***
$p < .001$.

Table 4.

Odds of IPV and Related Circumstances Associated With Interactions Among High Gender-based Structural Stigma and Minority Status for all Women in Europe.

	IPV From Current Partner Past-12-month		IPV From Previous Partner Past-12-month		Police Non-involvement Following the Most Serious Incident of IPV From Current Partner Past-12-month		Police Non-involvement Following the Most Serious Incident of IPV From Previous Partner Past-12-month		Worrying About IPV From Current Partner Past-12-month		Worrying About IPV From Previous Partner Past-12-month	
	AOR[a]	95% CI	AOR[a]	95% CI	AOR[a]	95% CI	AOR[a]	95% CI	AOR[a]	95% CI	AOR[a]	95% CI
Model 5												
Sample size	$n = 16,858$		$n = 9,240$		$n = 467$		$n = 254$		$n = 26,948$		$n = 22,877$	
High gender-based structural stigma x sexual orientation	2.97[†]	.85, 10.39	1.91	.76, 4.79	—	—	.55	.09, 3.13	1.39	.81, 2.40	1.53[*]	1.07, 2.18
Model 6												
Sample size	$n = 16,858$		$n = 9,240$		$n = 467$		$n = 254$		$n = 26,948$		$n = 22,877$	
High gender-based structural stigma x immigration status	.78	.51, 1.18	.77	.52, 1.16	—	—	.96	.83, 1.12	.95	.77, 1.18	.91	.74, 1.12
Model 7												
Sample size	$n = 16,858$		$n = 9,240$		$n = 467$		$n = 254$		$n = 26,948$		$n = 22,877$	
High gender-based structural stigma x socioeconomic status	.83[***]	.77, .90	.81[**]	.70, .94	2.77[**]	1.48, 5.18	1.29	.53, 3.17	.98	.86, 1.12	.76[***]	.65, .89

Note. AOR = Adjusted odds ratio.

All models adjusted for individual-level age, relationship status, type of living area, and country-level gross domestic product. Model 5 also adjusted for individual-level socioeconomic status and immigration status. Model 6 also adjusted for individual-level socioeconomic status and sexual orientation. Model 7 also adjusted for sexual orientation and immigration status.

[a] Weighted odds ratios.

[†] $p < .10$.

[*] $p < .05$.

[**] $p < .01$.

[***] $p < .001$.