Article

Journal of Interpersonal Violence
Volume 25 Number 4
April 2010 648-665

10.1177/0886260509334396
http://jiv.sagepub.com

Intimate Partner Violence and Contribution of Drinking and Sociodemographics

The Brazilian National Alcohol Survey

Marcos Zaleski
Federal University of Santa Catarina, Brazil

Ilana Pinsky
Ronaldo Laranjeira
Federal University of São Paulo, Brazil

Suhasini Ramisetty-Mikler
Raul Caetano
University of Texas School of Public Health

Purpose: To estimate prevalence rates of intimate partner violence (IPV) among Brazilian couples and to assess the contribution of drinking and sociodemographic factors to the risk of IPV. *Methods:* A sample consisting of 1,445 married or cohabitating males and females in the Brazilian population was interviewed. The survey response rate was 66%. *Results:* The analyses indicate 10.7% and 14.6% prevalence, respectively for male-to-female and female-to-male IPV. Males were drinking in 38.1% of IPV events and females in 9.2%. The male's partner was drinking in 30.8% and the females' partner in 44.6% of IPV acts. Bivariate associations between violence and sociodemographics were found for age groups, household monthly income and educational level. Logistic regression analysis indicate that younger age for both male and female partners, men with no religious affiliation and women who are homemakers are significant predictors of violence. *Conclusion:* This survey provides important information to further IPV research in Brazil.

Keywords: *partner violence; couples violence; Brazilian survey; alcohol*

Intimate partner violence (IPV) is being recognized worldwide as public health problem. Most of the research in this field has been carried out in developed nations, especially in the United States. Several U.S. nationwide population-based surveys have been conducted in the past two decades including National Family Violence Survey in 1975 and 1985, National Survey of Families and Households in 1988 and 1993, National Violence Against Women Survey in 1995, and National Longitudinal Couples Survey in 1995 and 2000 (Bumpass & James, 1997; Field & Caetano, 2005a; Straus & Gelles, 1990; Tjaden & Thoennes, 2000). In the second National Family Violence Survey, for example, it was found that 16% of American couples had experienced one or more types of IPV within the 12 months prior to the interviews. The majority of the assaults were considered as minor violence (e.g., slapping, pushing), but approximately a third of the events were referred to as severe (e.g., beating, choking, beating with an object, forcing sex, threatening with or using a knife or gun). The same study showed that the rate of male-to-female partner violence (MFPV) was similar to that of female-to-male partner violence (FMPV), which was also found in a previous 1975 study carried out by the same authors and later confirmed by other studies (Archer, 2000; Straus & Gelles, 1990). Although women seem to perpetrate violence as much as their male partners, they are more likely than men to have severe injuries resulting from MFPV (Lipsey, Wilson, Cohen, & Derzon, 1997; Weinsheimer, Schermer, Malcoe, Balduf, & Bloomfield, 2005). A study reported that approximately 20% of emergency department visits for trauma and 25% of homicides of women involved IPV (Rand & Strom, 1997). Overall, IPV estimates, based on U.S. population-based national surveys conducted over the past decade, show that the 12-month rate of IPV among couples ranges between 17% and 39%, with rates of MFPV and FMPV among U.S. couples being 13.6% and 18.2%, respectively (Schafer, Caetano, & Clark, 1998).

Past research with clinical samples have also established a consistent positive association between victim and partner alcohol use during an intimate partner violence event (Lipsky, Caetano, Field, & Bazargan, 2004; Lipsky, Caetano, Field, & Larkin, 2005; Thompson & Kingree, 2006). Some studies have demonstrated temporal associations between drinking and IPV, so that the conditional odds of perpetration of MFPV were

Authors' Note: Work on this article was supported by a contract from the Brazilian Government National Anti Drug Secretary (SENAD) to UNIAD, UNIFESP. Correspondence concerning this article should be addressed to Marcos Zaleski, Rua Itapecerica, 14 Bairro Itacorubi, Florianópolis, Santa Catarina State, Brazil 88034-420; e-mail: mzaleski@terra.com.br.

8.94 times higher when men drank in comparison with days of no consumption (Caetano, Schafer, Fals-Stewart, O'Farrell, & Miller, 2003). In general, men had been drinking in IPV events ranging between 6% and 57% of the time and women found to be drinking between 10% and 27% of the time (Roizen, 1993).

The role of sociodemographic factors such as age, household income, employment, religious affiliation, educational level, and participant's neighborhood were also addressed in the literature (Cunradi, Caetano, & Schafer, 2002a). Higher prevalence of IPV was reported among couples who are younger, of low socioeconomic status, and those who live in impoverished neighborhoods (Caetano, Cunradi, Clark, & Schafer, 2000; Cunradi, Caetano, Clark, & Schafer, 2000; Field & Caetano, 2005b; Suitor, Pillemer, & Straus, 1990). On the other hand, past research has shown that homemakers and men who are church attendees have lower IPV risk for both MFPV and FMPV (Cunradi, Carol, Caetano, & Schafer, 2002; Kalmuss & Straus, 1990).

Much is already known about the association between sociodemographic characteristics, alcohol use, and IPV in the United States. This is not true of Brazil. In spite of being the largest country of South America with a population of more than 180 million people and the eleventh biggest economy, no national population-based study has investigated the role of sociodemographic characteristics as risk factors for IPV in Brazil. Furthermore, even though IPV occurs among all ethnic groups in the United States, some groups have higher rates than others (Caetano, Ramisetty-Mikler, Caetano Vaeth, & Harris, 2007; Caetano, Schafer, & Cunradi, 2001). Unlike North Americans, Brazilians are known by their unique mixture of races, which makes it more difficult to identify and study ethnic minorities, except for the native Amazon Indians. However, as a pioneering national study, the rationale to justify the importance of this kind of research is in the analyses of cultures and people from different countries. In Brazil, for instance, the Federal Government officers cannot rely in local clinical studies or in international research only to establish IPV prevention public policies, as few studies of IPV have been conducted and published in Brazil. Most of those studies address violence against women, such as IPV reports from local hospitals emergency data and partner violence acts during pregnancy (Deslandes, Gomes, Furtado, & Silva, 2000; Moraes & Reichenheim, 2002). In a recent survey conducted by the World Health Organization (WHO), 24,097 women were interviewed in 10 countries, cities, and rural areas, including Brazil (1,172 women in the largest city, São Paulo, and 1,473 in *Zona da Mata* [forest zone], Pernambuco

state, a rural and poverty-stricken northeastern area of the country). The results show a lifetime prevalence of physical violence by a partner in 40% of cases in São Paulo and 37% in *Zona da Mata*. The survey also found combined physical and sexual violence rates of 29% and 37% in São Paulo and *Zona da Mata*, respectively (Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2006). A recent cross-sectional population-based study conducted in 15 Brazilian state capitals and the Federal District, Reichenheim et al. (2006) interviewed 6,760 women above 15 years and found 21.5% and 12.9% of MFPV and FMPV, respectively.

The objective of this article is to report prevalence rates of IPV, assess the contribution of drinking during the IPV event, and identify the sociodemographic factors of MFPV and FMPV.

Method and Analysis

Sample and Data Collection

The subjects included in the current analysis ($N = 1,445$) are a part of the first Brazilian National Alcohol Survey, conducted by the University of São Paulo's Unidade de Estudos de Alcool e Outras Drogas (UNIAD), Brazil. The data were collected between November 2005 and April 2006 and used a multistage cluster sampling procedure to select 3,007 individuals who are 14 years or older representing the Brazilian household population. The sampling involved three stages:

Stage 1: Selection of 143 counties using probability proportional to size methods (PPS).

Stage 2: Selection of 2 census sectors for each county, with the exception of the 14 biggest selected counties, totaling 325 census sectors, also using PPS.

Stage 3: Within each census sector, eight households were selected by simple random sampling, followed by the selection of a household member to be interviewed using the "the closest future birthday" technique.

One-hour face-to-face interviews were conducted in the respondent's home by trained interviewers using a standardized closed questionnaire. A total of 2,522 interviews were conducted with respondents aged 14 years and older, and 485 interviews were conducted with respondents aged 14 to 17 years (adolescent oversample). This article analyzes only data from male ($n = 631$) and female ($n = 814$) participants who are married or living

with someone in a marital relationship. The study was approved by a human subjects/internal review board process at the university (code: CEP 1672/04). All respondents signed an informed consent form and were assured of the confidential nature of the study before the interview. The interview was conducted without the presence of another person, in a separate room or even outside the house, keeping a safe distance from other relatives or any other participant in the household. They were told that this was a pioneer national study in domestic violence and that their participation was important to guide future government public policies. Parental consent was required for all participants less than 18 years of age. The overall response rate was 66.4%. The original Portuguese language questionnaire form may be viewed by accessing the Web site www.uniad.org.br.

Measures

Intimate partner violence and alcohol use variables. Respondents were asked a total of nine questions about the occurrence of different types of violent behaviors in the last 12 months, including minor violence (throwing something; pushing, grabbing, or shoving; slapping) and severe violence (kicking, biting, or hitting; hitting or trying to hit with something; burning or scalding; forced sex; threatening with a knife or gun; using a knife or gun). First, the respondents were asked if they have perpetrated these acts against their partner (perpetration) and then were asked to report if their partner has perpetrated these acts against them (victimization). Based on their responses, a four-level variable was created: (a) if they responded *yes* to both perpetration and victimization they were categorized under "mutual violence"; (b) if they responded *yes* to any item only for perpetration, they were categorized as "perpetration only"; (c) if they responded *yes* to victimization but they have not perpetrated, they were categorized as "victim only"; and (d) those who have not involved in any violence (both perpetration and victimization) were categorized as "no" violence group. For the variable "any IPV," we have considered the presence of any type of violence (either perpetration, victimization, or both) and created a dichotomy (1 = *yes* if any type of violence is present; and 0 = *no* if no violence is present) using the above four categories. Drinking during the event was assessed following a positive report regarding IPV, with the question being then repeated and the participant asked if he or she or his or her partner was drinking during the IPV act. All questions were adapted from the

Conflict Tactics Scale, Form R (Straus, 1979; Straus, Hamby, Boney-McCoy, & Sugarman, 1996).

Sociodemographic variables. The sociodemographic variables included the following:

Age: Years of age were recorded for each respondent and categorized into five groups (14-29, 30-39, 40-49, 50-59, and 60 or above).

Income: The actual total monthly household income reported in Brazilian currency was converted to U.S. dollars and was grouped into five categories (US$200 or less, US$201-US$400, US$400-US$600, US$601-US$800, US$801 or more).

Employment status: Male respondents were categorized into two groups based on the employment status: employed/working/student and unemployed/retired/disability. For female respondents, a third category—homemakers—was added.

Educational level: The participants were categorized into four groups, namely, up to fifth grade, sixth to ninth grade, at least some or completed high school, and at least some college.

Religious affiliation: Religious affiliation of the participants included Catholic, Evangelic/Protestant, other, and none.

Brazilian geographic regions: The Brazilian geographic regions of the participants included North, Northeast, Center-West, Southeast, and South.

Statistical Analysis

The rates of IPV were estimated, and χ^2 tests were employed to assess gender differences in the prevalence of IPV, as well as the bivariate association between IPV and sociodemographic variables. Logistic regression analyses were conducted to identify predictors of MFPV and FMPV. In this analysis, the dependent variable was coded as a dichotomy (1 if an incident of any one violence act was reported and 0 if no violence was reported).

To take into account the multistage, multicluster design, all analyses were conducted with the Software for Survey Data Analysis (SUDAAN; Research Triangle Institute, 2001). Analysis was conducted on data weighted to correct for the probability of selection into the sample and nonresponse rates. Poststratification weights were calculated to adjust the sample to known census population distributions of sociodemographic variables.

Results

Prevalence of Any IPV, Perpetration, and Victimization

Table 1 represents the overall violence rates and the prevalence of different types of acts perpetrated by men and women in the Brazilian Survey. Women reported a significantly higher rate of any IPV (perpetration or victimization or both) than men ($\chi^2 = 4.76$, $df = 1$, $p < .05$). The most prevalent type of minor violence perpetrated by men and women was "push, grab, or shake." Slightly less than a tenth of both men and women report perpetration of this type of violence. The most common type of violence reported in victimization episodes was "slapping." In general, acts of severe violence have a lower prevalence than those of minor violence. The most common type of severe violence perpetrated by men and women or reported in victimization episodes was "hit with something." About 2% of the men and 5% of the women reported hitting their partner with something. About 3% of men and 2% of women reported that their partner hit with something (victimization). Men reported a level of mutual violence 1% lower than women (5.3% to 6.3%). Perpetration only was reported by about 4% of the men and 6% of the women and victimization by 1.5% of the men and 2.6% of the women.

IPV and Alcohol Consumption During the Event

Perpetrator (participant) drinking. Nearly 40% of the men and one tenth of the women interviewed reported drinking during the IPV ($\chi^2 = 19.38$, $df = 1$, $p < .001$). Men reported similar rates of drinking in the case of "mutual" violence and during "only perpetration." Whereas the figures for male perpetration drinking during IPV were above 15%, females reported only around 1% to 2% of prevalence for "mutual" and "only perpetration" acts. Both men and women reported a prevalence of about 5% regarding "only victimization" IPV and drinking episodes (see Table 2).

Partner drinking. Almost half of the female participants and one third of male participants reported that their partner was drinking during an IPV episode ($\chi^2 = 3.73$, $df = 1$, $p < .05$). Women also reported partner "mutual" and "only perpetration" rates about twice as much as men. However, men reported 1.5 times higher partner victimization rates than women. Results are shown in Table 2.

Table 1
Prevalence of Any IPV, Perpetration, and Victimization in the Past 12 Months

IPV Violence Status	Male IPV (n = 631)		Female IPV (n = 814)	
Any IPV[a] (including mutual, only perpetration, and only victimization status)	10.7		14.6	
Minor/Severe Acts	Perpetration	Victimization	Perpetration	Victimization
Minor acts				
Throw something	2.2	3.4	6.0	2.7
Push, grab, or shake	7.4	4.1	9.3	6.3
Slap	3.2	4.2	6.0	3.9
Severe acts				
Kick or bite	0.9	1.4	2.2	1.2
Hit with something	1.6	2.9	5.5	2.2
Burn	0.0	0.1	0.0	0.1
Force sex	0.8	0.3	0.6	1.2
Threaten with knife	0.4	1.5	1.2	0.9
Use knife/gun	0.2	0.9	0.2	0.3
Violence status				
Mutual	5.3		6.3	
Only perpetration	3.9		5.7	
Only victimization	1.5		2.6	
No violence	89.3		85.4	

Note: IPV = intimate partner violence. Rates are reported in weighted percentage and n are unweighted.
a. $\chi^2 = 4.76$, $df = 1$, $p < .05$.

Bivariate Association Between MFPV and FMPV and Sociodemographic Factors

We examined bivariate associations between MFPV, FMPV, and sociodemographic factors including age, household monthly income, educational levels, employment status, religious affiliation, and Brazilian political/geographic regions.

Age has a significant bivariate association with both male and female perpetration ($\chi^2 = 13.69$, $df = 4$, $p < .05$ and $\chi^2 = 24.61$, $df = 4$, $p < .001$, respectively). The highest rates were observed in the age group of 14 to 29 years and the lowest for the age group of 60 or above.

Table 2
Drinking During IPV Event in the Past 12 Months

IPV Violence Status and Drinking	Subject's Drinking and IPV Status: Male Drinking (n = 73)	Female Drinking (n = 132)	$\chi^2(df)$	Partner Drinking and IPV Status: Male Partner Drinking (n = 73)	Female Partner Drinking (n = 132)	$\chi^2(df)$
Any IPV	38.1	9.2	19.38***	30.8	44.6	3.73(1)*
Violence status						
Mutual	16.3	2.2		5.9	20.6	
Only perpetration	16.3	1.4		9.0	14.0	
Only victimization	5.5	5.6		15.9	10.0	
No alcohol consumption	61.9	90.8		69.2	55.4	

Note: IPV = intimate partner violence. Rates are reported in weighted percentage and n are unweighted.
*$p < .05$. ***$p < .001$.

Household income has a significant association with both MFPV and FMPV reports ($\chi^2 = 13.24$, $df = 4$, $p < .05$ for men and $\chi^2 = 11.32$, $df = 4$, $p < .05$ for women).

A significant association between FMPV and female educational level ($\chi^2 = 8.19$, $df = 3$, $p < .05$), with highest rate being reported in the group with at least some high school education.

No significant associations were found for employment, religious affiliation, and geographic regions. Results are shown in Table 3.

Sociodemographic Predictors of IPV

Age group-specific multivariate logistic regression models for both MFPV and FMPV were developed. The results revealed that the risk factors for MFPV were couples with age between 14 and 29 years when compared to those who are 60 years or older and men with no religious affiliation when compared to Catholics.

Among women, the results showed that the younger age between 14 and 29 years when compared to those who are 60 years or older is also a risk factor for FMPV, even though the significance was lower than the one observed for MFPV. Results also showed that housewives have lower risk for FMPV. Results are shown in Table 4.

Table 3
Bivariate Association Between MFPV and FMPV and Sociodemographic Factors

Sociodemographic Factors	Male Report of MFPV	Female Report of FMPV
	% (*n*)	% (*n*)
Age groups		
14-29	17.17 (146)	21.74 (213)
30-39	11.48 (167)	15.29 (245)
40-49	4.75 (119)	5.06 (165)
50-59	5.34 (86)	7.02 (104)
60 or more	4.90 (110)	5.29 (85)
χ^2(*df*)	13.69 (4)*	24.61 (4)***
Household monthly income (US$)		
200 or Less	14.65 (44)	8.69 (74)
201-400	9.76 (68)	14.35 (107)
401-600	10.96 (45)	1.02 (41)
601-800	3.43 (31)	17.62 (37)
800 or more	0.00 (36)	16.14 (40)
χ^2(*df*)	13.24 (4)*	11.32 (4)*
Educational level		
Until fifth grade	9.70 (198)	6.65 (209)
Until ninth grade	8.58 (187)	13.31 (263)
At least some high school	11.85 (88)	16.76 (143)
At least some college	7.84 (155)	12.58 (197)
χ^2(*df*)	0.89 (3)	8.19 (3)*
Employment		
Employed/working/student	9.15 (607)	13.81 (441)
Unemployed/disability/retired	10.50 (20)	20.71 (351)
Housewife	NA	8.78 (15)
χ^2(*df*)	0.03 (1)	5.33 (2)
Religion affiliation		
Catholic	7.90 (452)	11.08 (551)
Adventist/protestant	9.33 (130)	11.95 (208)
Other	8.97 (21)	16.21 (29
None	31.88 (25)	27.74 (24)
χ^2(*df*)	2.90 (3)	2.91 (3)
Geographic region		
North	8.00 (35)	13.33 (44)
Northeast	8.11 (2.44)	11.06 (309)
Center-West	14.59 (37)	19.57 (63)
Southeast	10.02 (219)	9.04 (257)
South	8.89 (90)	16.01 (138)
χ^2(*df*)	1.89 (4)	6.51 (4)

Note: MFPV = male-to-female perpetration violence; FMPV = female-to-male perpetration violence. Figures in parenthesis represent the denominators specific to that subgroup. Rates are reported in weighted percentage and *n* are unweighted.
*$p < .05$. ***$p < .001$.

Table 4
Sociodemographic Predictors of MFPV and FMPV (OR and 95% CI)

Sociodemographic Predictors	MFPV (n = 631)	FMPV (n = 814)
Age groups (Reference: 60 or more)		
14-29	5.57 (1.68, 18.46)**	4.05 (1.26, 13.03)*
30-39	3.09 (0.95, 10.02)	2.66 (0.76, 9.35)
40-49	1.22 (0.31, 4.82)	0.91 (0.24, 3.43)
50-59	1.33 (0.43, 4.09)	1.24 (0.33, 4.70)
Religion affiliation (reference: Catholic)		
Adventist/protestant	1.07 (0.53, 2.15)	1.05 (0.53, 2.10)
Other	0.94 (0.19, 4.65)	1.62 (0.55, 4.79)
None	4.74 (1.40, 16.11)*	2.11 (0.65, 6.86)
Employment (reference: unemployed for males and employed for females)		
Employed/working/student	1.20 (0.26, 5.55)	
Unemployed/disability/retired		0.96 (0.24, 3.90)
Homemaker[a]	NA	0.56 (0.33, 0.95)*
Educational level (reference: at least some college)		
Until fifth grade	2.58 (0.89, 7.43)	1.00 (0.45, 2.20)
Until ninth grade	1.32 (0.54, 3.24)	1.39 (0.70, 2.71)
At least some high school	1.42 (0.53, 3.79)	1.35 (0.68, 2.65)
Geographic region (reference: Southeast)		
North	0.64 (0.14, 3.07)	1.64 (0.40, 6.65)
Northeast	0.67 (0.36, 1.22)	1.31 (0.70, 2.47)
Center-West	1.29 (0.54, 3.12)	1.91 (0.83, 4.43)
South	0.90 (0.39, 2.12)	1.83 (0.92, 3.61)

Note: MFPV = male-to-female perpetration violence; FMPV = female-to-male perpetration violence; OR = odds ratio; CI = confidence interval.
a. Homemaker category does not apply to males.
*p < .05. **p < .01.

Discussion

Prevalence of IPV and Alcohol Consumption During the Event

This is the first Brazilian national study in the field of IPV to use a multistage cluster sampling procedure, thus generating results that are applicable to the Brazilian population as a whole. The IPV prevalence rates found in this national Brazilian sample are lower than the rates found in some specific U.S. population surveys and in a recent Brazilian urban study (Caetano et al., 2000; Reichenheim et al., 2006). “Push, grab, or shake” and “hit with something” were the most prevalent types of IPV among minor and severe violent acts. Surprisingly, women reported higher rates of both minor and severe perpetration episodes than men (despite the fact that men

are usually more violent than women). This may result from the fact that men seem to underreport perpetration of violence more often than women (Caetano, Schafer, Field, & Nelson, 2002). On the other hand, women may fear reprisal, stigmatization, and other negative outcomes if they reveal experiences of victimization, which might have contributed to underreporting (Miller, Wilsnack, & Cunradi, 2000). The failure to report IPV by female victims may bias results regarding male perpetration or female victimization. In Brazil, new policies and laws are trying to reduce this fear. In 2006, an already popular law called *Lei Maria da Penha*—named after a woman victim of MFPV—was created to protect women from male aggression. In our study, of those who were involved only in victimization, women reported higher rates than men.

Report of men drinking during the IPV events is nearly 4 times more often than that of women. The gender difference in drinking during the IPV events perhaps reflects the general drinking rates which are higher for men than for women. However, a full understanding of this relationship based on survey data only is difficult because of its complexity. The association between alcohol and IPV includes not only drinking at the time of the event but also frequency and patterns of alcohol consumption, presence or absence of alcohol-related problems, and/or alcohol dependence (Cunradi et al., 2002b).

MFPV, FMPV, and Sociodemographic Factors

The association between IPV and sociodemographic variables is well established based on several studies conducted in the last 30 years; gender, age, income, employment, religious affiliation, educational level, and residence area are some of the most analyzed variables (Straus, 1979).

Bivariate analysis revealed an association between IPV and age, and results for the association of "household income" and "educational level" groups with IPV were inconsistent, in the first case mainly due to sample missing data. Younger age was confirmed as predictor for MFPV and FMPV. This result is consistent with other findings, stating a negative relationship between age and IPV. Some researchers argue that social desirability—which has higher scores in elderly groups—and other independent and still unknown factors could contribute to this finding (Suitor, Pillemer, & Straus, 1990).

The findings from multivariate analyses indicate that homemakers are less likely to perpetrate, when compared to employed women. Other authors have also found a negative relationship between MFPV and marital dependency: husbands of dependent wives can maintain their dominant

positions without resorting to violence because their wives are in no position to question their dominance (Kalmuss & Straus, 1990). In our study, aspects such as socioeconomic homemakers dependence and submission to husband may explain this protective factor. This finding, however, different from other predictors of IPV violence, apparently does not contribute to specific policy and interventions regarding employed women.

The five different Brazilian political/sociogeographic regions were not significant predictors of IPV. This result was somewhat surprising, as there is a great economic and cultural difference between these regions, with most of the country's poor population being concentrated in the less developed North and the Northeast region states.

Logistic regression showed that men with no religious affiliation had a higher probability of perpetrating IPV when compared to Catholic males. These results confirm past research findings that religion is a protective factor for IPV (Cunradi et al., 2002). Other studies indicated that men and women who are frequent religious church attendees reported significantly lower rates of IPV perpetration and victimization, respectively, than those who are infrequent religious church attendees (Cunradi et al., 2002). In Brazil, this is the first finding showing that religion is a protective factor for this kind of domestic violence.

Study Findings and Implications for Brazilian Policies and Interventions Programs

Overall, our study findings have important implications for developing awareness and intervention programs and policies to prevent or reduce family violence. In the last decade, several women's defense precincts have been created throughout the country. However, victims do not have access to comprehensive medical and psychological support. This legal and important instrument should be integrated with other state departments, such as Secretary of Security, Justice, and Education (Blay, 2003). Brazilian health facilities are also a good instrument to detect IPV cases in clinical settings, but those services should have well-trained professionals. In a general way, health professionals take care of the victim's injuries only and "close their eyes" to the real reasons behind it (Garbin, Garbin, & Dossi, 2006). It seems that Women's Defense Precincts and health facilities are not prepared to provide efficient IPV counseling. This lack of integration among different services may be minimized by adding new scientific information about the facts influencing IPV in Brazil, such as local data regarding the significant influence of alcohol drinking during IPV events.

With a nationally representative scientific local data available, government officials may understand the need to increase the number of existing services and provide more integration with alcohol abuse prevention and treatment centers. Moreover, they could start a public health campaign that cautions about drinking and arguing, develop special interventions to reach high-risk populations such as younger couples, and even eventually involve churches in IPV prevention programs.

Study Strengths and Limitations

The sample under analyses is representative of couples in Brazil. The fact that the interviews were conducted face-to-face is also important, as past research shows that, when compared to self-administered questionnaires, face-to-face interviews may decrease underreporting of partner violence (Caetano, 2001). The fact that the study interviews male and female participants may also be considered important, as previous studies in our country focus mainly on female data regarding either victimization or perpetration violence.

This study had also some limitations. Only one partner in the dyad was interviewed, a procedure that may lead to underreporting of IPV (Caetano, 2001). Furthermore, multivariate analyses do not consider the frequency of violence and do not differentiate couples with reciprocal violence from those where the violence was perpetrated either by men or women alone. The sample size was small for some specific subgroups analysis as the different subtypes of moderate and severe IPV. Also, logistic models did not include household monthly income due to a very high percentage (64%) of missing data. This high nonresponse rate can be justified by Brazilian population's socioeconomic and cultural factors. People are usually afraid to report their true income, either for security or legal reasons. As epidemiological surveys in the country are not frequent, subjects tend to withhold financial information, even though they were willing to respond to the survey.

Finally, our study reinforces the need for urgent measures for IPV and alcohol consumption during the event, and we hope that this first national study on IPV and drinking among Brazilian couples may be a reference for future guidelines regarding IPV in Brazil.

References

Archer, J. (2000). Sex differences in aggression between heterosexual partners: A meta-analytic review. *Psychological Bulletin, 126*, 651-680.

Blay, E. A. (2003). Violence against woman and public policies. *Estudos Avançados, 17*(49), 87-98.

Bumpass, L. L., & James, A. S. (1997). *National survey of families and households: Wave I, 1987-1988, and Wave II, 1992-1994*. Madison: University of Wisconsin, Center for Demography and Ecology; Ann Arbor, MI: Inter-university Consortium for Political and Social Research.

Caetano, R. (2001). Non-response in alcohol and drug surveys: A research topic in need of further attention. *Addiction, 96*, 1541-1545.

Caetano, R., Cunradi, C. B., Clark, C. L., & Schafer, J. (2000). Intimate partner violence and drinking patterns among White, Black, and Hispanic couples in the U.S. *Journal of Substance Abuse, 11*(2), 123-138.

Caetano, R., Ramisetty-Mikler, S., Caetano Vaeth, P. A., & Harris, T. R. (2007). Acculturation stress, drinking, and intimate partner violence among Hispanic couples in the U.S. *Journal of Interpersonal Violence, 22*, 1431-1447.

Caetano, R., Schafer, J., & Cunradi, C. B. (2001). Alcohol-related intimate partner violence among White, Black, and Hispanic couples in the United States. *Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism, 25*(1), 58-65.

Caetano, R., Schafer, J., Fals-Stewart, W., O'Farrell, T., & Miller, B. (2003). Intimate partner violence and drinking: New research on methodological issues, stability and treatment. *Alcoholism, Clinical and Experimental Research, 27*, 292-300.

Caetano, R., Schafer, J., Field, C., & Nelson, S. (2002). Agreement on reports of intimate partner violence among White, Black, and Hispanic. *Journal of Interpersonal Violence, 17*, 1308-1322.

Cunradi, C. B., Caetano, R., & Schafer, J. (2002a). Socioeconomic predictors of intimate partner violence among White, Black, and Hispanic couples in the United States. *Journal of family violence, 17*, 377-389.

Cunradi, C. B., Caetano, R., & Schafer, J. (2002b). Alcohol-related problems, drug use, and male intimate partner violence severity among U.S. couples. *Alcoholism, Clinical and Experimental Research, 26*, 493-500.

Cunradi, C. B., Caetano, R., Clark, C., & Schafer, J. (2000). Neighborhood poverty as a predictor of intimate partner violence among White, Black, and Hispanic couples in the United States: A multilevel analysis. *Annals of Epidemiology, 10*, 297-308.

Cunradi, C., Carol, B., Caetano, R., & Schafer, J. (2002). Religious affiliation, denominational homogamy, and intimate partner violence among U.S. couples. *Journal for the Scientific Study of Religion, 41*, 139-151.

Deslandes, S. F., Gomes, R., Furtado, M. C., & Silva, P. (2000). Caracterização dos casos de violência doméstica contra a mulher atendidos em dois hospitais públicos do Rio de Janeiro. *Cadernos de Saúde Pública, 16*, 129-137.

Field, C. A., & Caetano, R. (2005a). Intimate partner violence in the U.S. general population: Progress and future directions. *Journal of Interpersonal Violence, 20*, 463-469.

Field, C. A., & Caetano, R. (2005b). Longitudinal model predicting mutual partner violence among White, Black, and Hispanic couples in the United States general population. *Violence and Victims, 20*, 499-511.

Garbin, C. A. S., Garbin, A. J. I., Dossi, A. P., & Dossi, M. O. (2006). Domestic violence: An analysis of injuries in female victims. *Cadernos de Saúde Pública, 22*, 2567-2573.

Garcia-Moreno, C., Jansen, H. A., Ellsberg, M., Heise, L., & Watts, C. H. (2006). Prevalence of intimate partner violence findings from the WHO multi-country study on women's health and domestic violence. *Lancet, 368*, 1260-1269.

Kalmuss, D. S., & Straus, M. (1990). Wife's marital dependency and wife abuse. In M. A. Straus & R. J. Gelles (Eds.), *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families* (pp. 369-382). New Brunswick, NJ: Transaction Books.

Lipsey, M. W., Wilson, D. B., Cohen, M. A., & Derzon, J. H. (1997). Is there a casual relationship between alcohol use and violence? A synthesis of evidence. *Recent Developments in Alcoholism, 13*, 245-282.

Lipsky, S., Caetano, R., Field, C. A., & Bazargan, S. (2004). Violence-related injury and intimate partner violence in an urban emergency department. *Journal of Trauma-Injury and Infection & Critical Care, 57*, 352-359.

Lipsky, S., Caetano, R., Field, C. A., & Larkin, G. L. (2005). Is there a relationship between victim and partner alcohol use during an intimate partner violence event? Findings from an urban emergency department study of abused women. *Journal of Studies on Alcohol, 66*, 407-412.

Miller, B. A., Wilsnack, S. C., Cunradi, C. B. (2000). Family violence and victimization: Treatment issues for women with alcohol problems. *Alcoholism, clinical and experimental research, 24*, 1287-1297.

Moraes, C. L., & Reichenheim, M. E. (2002). Domestic violence during pregnancy in Rio de Janeiro, Brazil. *International Journal of Gynaecology and Obstetrics: The Official Organ of the International Federation of Gynaecology and Obstetrics, 79*, 269-277.

Rand, M., & Strom, K. (1997). *Violence-related injuries treated in hospital emergency departments* (Bureau of Justice Statistics special report, Publication NCJ-156921). Washington, DC: U.S. Department of Justice.

Reichenheim, M. E., Moraes, C. L., Szklo, A., Hasselmann, M. H., de Souza, E. R., Lozana, J. A., et al. (2006). The magnitude of intimate partner violence in Brazil: Portraits from 15 capital cities and the Federal District. *Cadernos de Saúde Pública, 22*, 425-437.

Research Triangle Institute. (2001). *Software for survey data analysis (SUDAAN): Release 8.0*. Research Triangle Park, NC: Author.

Roizen, J. (1993). Issues in the epidemiology of alcohol and violence. In S. E. Martin (Ed.), *Recent developments in alcohol: Alcohol and violence: Fostering multidisciplinary perspectives* (pp. 3-36). Rockville, MD: National Institute on Alcohol Abuse and Alcoholism.

Schafer, J., Caetano, R., & Clark, C. L. (1998). Rates of intimate partner violence in the United States. *American Journal of Public Health, 88*, 1702-1704.

Straus, M. A., & Gelles, R. J. (1990). How violent are American families? Estimates from a national family violence resurvey and other studies. In M. A. Straus & R. J. Gelles (Eds.), *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families* (pp. 95-112). New Brunswick, NJ: Transaction Books.

Straus, M. A. (1979). Measuring intrafamily conflict and violence: The Conflict Tactics Scale (CTS). *Journal of Marriage and the Family, 41*, 75-88.

Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised Conflict Tactics Scale (CTS2). *Journal of Family Issues, 17*, 283-316.

Suitor, J. J., Pillemer, K., & Straus, M. (1990). Marital violence in a life course perspective. In M. A. Straus & R. J. Gelles (Eds.), *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families* (pp. 305-317). New Brunswick, NJ: Transaction Books.

Thompson, M. P., & Kingree, J. B. (2006). The roles of victim and perpetrator alcohol use in intimate partner violence outcomes. *Journal of Interpersonal Violence, 21*, 163-177.

Tjaden, P., & Thoennes, N. (2000). Prevalence and consequences of male-to-female and female-to-male intimate partner violence as measured by the National Violence Against Women Survey. *Violence Against Women, 6*, 142-161.

Weinsheimer, R. L., Schermer, C. R., Malcoe, L. H., Balduf, L. M., & Bloomfield, L. A. (2005). Severe intimate partner violence and alcohol use among female trauma patients. *Journal of Trauma-Injury and Infection & Critical Care, 58*(1), 22-29.

Marcos Zaleski, MD, MS, is a voluntary lecturer at the Federal University of Santa Catarina, University Hospital Psychiatry Nucleus, Brazil. He is also an associate researcher of the Alcohol and Drugs Research Unit (UNIAD), at the Federal University of São Paulo, Brazil. He is currently working on the first Brazilian National Alcohol Study (BNAS). His main areas of interest include alcohol consumption, drinking problems, and intimate partner violence.

Ilana Pinsky, PhD, is a professor in the department of psychiatry at the Federal University of São Paulo, Brazil. She is also a family therapist. She is currently coordinating the Brazilian National Alcohol Study (BNAS). She has a grant from the Foundation for the Research Development at São Paulo (Fapesp) to study the effects of marketing messages on alcohol consumption by youngsters. Her areas of main interest include alcohol policies, alcohol and the media, and patterns of alcohol and drug use by adolescents.

Ronaldo Laranjeira, MD, MS, PhD, is a senior lecturer at the Federal University of São Paulo, Brazil and the director of the Alcohol and Drugs Research Unit (UNIAD). He is currently coordinating the first Brazilian National Alcohol Study (BNAS). His areas of interest include alcohol epidemiology, prevention policies regarding alcohol abuse and its social problems, alcohol and other drugs dependence, intimate partner violence, adolescent drinking, and drinking and driving problems. His future plans include studies of alcohol comorbidities with tobacco and psychiatric disorders and also alcohol abuse in Brazilian ethnic minorities, especially native Brazilian Indians.

Suhasini Ramisetty-Mikler, PhD, MPH, currently works as an assistant professor in epidemiology at the University of Texas School of Public Health, Dallas Regional Campus. She is currently coinvestigator on two NIH/NIAAA funded projects including ethnicity, spousal violence, and alcohol use patterns among Hispanic subgroups in the United States. Her main areas of research include alcohol epidemiology, long-term effects of drinking and intimate partner violence among ethnic groups, drinking patterns, attitudes, and alcohol-related problems of Hispanic subgroups—Mexican, Cuban, South and Central American groups—in the United States. Her research focus is also on adolescent drinking and drug use and HIV-risk behaviors including unsafe sexual practices among high school students. Her future research plans include studying the influence of parental and social/contextual risk factors including poverty on child growth and development, particularly among ethnic minority groups.

Raul Caetano, MD, MPH, PhD, is the dean and a professor at Allied Health Sciences School, University of Texas Southwestern Medical Center, and the regional dean and a professor at the University of Texas School of Public Health, Dallas Regional Campus. He is also a professor of psychiatry at the University of Texas Southwestern Medical Center and a clinical professor of psychiatry in the Department of Psychiatry, University of Hawaii. His research has focused on the epidemiology of alcohol consumption, drinking problems and domestic violence among U.S. ethnic minorities, especially Hispanics. Another area of research is the epidemiology of alcohol dependence and the development of diagnostic criteria for alcohol dependence.
