



Prevalence of intimate partner violence and its relationship to physical and psychological health indicators¹

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ABSTRACT. Intimate Partner Violence (IPV) is a significant problem that affects every country, culture and social level. Primary Health Centers (PHC) and Emergency Rooms play an essential role when women have been seriously battered and face possible long term consequences to their health. Our objective was to analyze the prevalence of the different types of IPV: physical, emotional and sexual. We also explored its relationship to physical and psychological indicators, not directly related to blows or injuries. We used a cross-sectional design. A sample of 333 Spanish women were randomly selected and interviewed with the Woman Abuse Screening Tool (WAST) and a checklist of symptoms. We found that 18% of the participants reported to be victims of IPV. Abuse was significantly related to migraines, headaches, breathing problems, abdominal pain, lack of appetite, alcohol intake, antidepressant intake, hypersomnia, difficulties concentrating and in decision making. IPV is a risk factor for female health; not only because of injuries but also because of the long term consequences of being exposed to such an aversive situation. Therefore, the role of Primary Health Centers should include screening for IPV.

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RESUMEN. La violencia contra la pareja es un grave problema que afecta a todos los países, culturas y niveles sociales. Los centros de Atención Primaria y unidades de urgencias tienen un papel esencial para proporcionar asistencia cuando las víctimas son severamente golpeadas, y ante posibles consecuencias sobre su salud a medio o largo plazo. El objetivo de este estudio *ex post facto* fue analizar la prevalencia de los distintos tipos de violencia en el seno de la pareja (física, psicológica y sexual) y su relación con indicadores físicos y psicológicos. Siguiendo un diseño transversal, se entrevistó a una muestra aleatoria de 333 mujeres mediante el *Woman Abuse Screening Tool* y un listado de síntomas e indicadores de salud. El 18% de la muestra informó sufrir algún tipo de violencia por parte de sus parejas. El abuso estaba relacionado significativamente con las migrañas, dolor de cabeza, problemas respiratorios, dolor abdominal, falta de apetito, ingesta de alcohol, consumo de antidepresivos, hipersomnia, y dificultades para la concentración y para tomar decisiones. La violencia contra la pareja es un factor de riesgo para la salud, por lo que es importante reforzar el papel que juegan los centros de Atención Primaria para su detección.

PALABRAS CLAVE. Violencia contra la pareja. Mujeres maltratadas. Indicadores de salud. Estudio transversal *ex post facto* mediante encuesta.

Intimate Partner Violence (IPV) has been recognized as a Public Health issue by the World Health Organization since 1996. It is a health and well being issue that affects every country, culture and social level. IPV manifests itself in physical aggression, forced sexual intercourse and other forms of sexual abuse, psychological mistreatment and controlling behavior (Krug, Dahlberg, Mercy, Zwi, and Lozano, 2002). According to international studies, between 10% and 52% of women suffer or have suffered from physical IPV. Between 10% and 30% have been victims of sexual abuse by their partners (Heise, Ellsberg, and Gottemoeller, 1999; Krug *et al.*, 2002). In Spain, a broad survey reported 9.60% of women participating in the survey to be victims of IPV. The Spanish region with the highest percentage of reported IPV was Castilla-La Mancha. In this region, 11.50% of women participants in a survey reported abuse (Instituto de la Mujer, 2006). The research presented and discussed in this paper is focused on women from Castilla-La Mancha.

Direct consequences of IPV are frequently found in Primary Health Centers. The most common injuries associated with IPV are located in and around the face, neck, upper torso, breast and abdomen (Bhandari, Dosanjh, Tornetta, and Matthews, 2006). But there is also important evidence concerning long-term negative health consequences stemming from IPV. Researchers have found that IPV victims have poorer overall physical health than women who have never experienced IPV (Coker *et al.*, 2002; Davis, Coker, and Sanderson, 2002; Hurwitz, Gupta, Liu, Silverman, and Raj, 2006; Lown and Vega, 2001b). They present numerous somatic symptoms (Lown and Vega, 2001b; Matud, 2004), and more conditions related to the central nervous system (Campbell *et al.*, 2002).

Women who suffer from abuse report more frequent headaches and migraines (Campbell *et al.*, 2002; Coker, Smith, Bethea, King, and McKeown, 2000), back pain, and several gynecological problems including sexually transmitted diseases, vaginal bleeding and infections, chronic pelvic pain, painful intercourse, unwanted pregnancy and more frequent HIV testing. Research has found that victims of IPV have a higher risk of suffering from abdominal pain, digestive problems, stomach ulcers, spastic colon, frequent indigestion, diarrhea and constipation (Campbell *et al.*, 2002; Coker *et al.*, 2000; Hathaway *et al.*, 2000). They need more frequent medical attention (Diop-Sidibe, Campbell, and Becker, 2006), and have a higher intake of prescription and non-prescription medicine (Matud, 2004).

IPV consequences over health frequently limit women's activities of daily living, or require the use of special equipment (Larson *et al.*, 2005). It has been linked to work preventing disabilities (Coker *et al.*, 2000; Hathaway *et al.*, 2000). The most commonly reported were: heart and back problems, circulatory disease, chronic pain, arthritis, nerve system damage, depression or other mental illness, and asthma or other respiratory problems including emphysema (Coker, Smith, and Faden, 2005). Violence is also a risk factor for developing chronic diseases such as arthritis and chronic pain disease (Coker *et al.*, 2000, 2002). IPV has also been related to a lesser quality of life (Alsaker, Moen, Nortvedt, and Baste, 2006).

Some psychological and behavioral consequences have also been observed among victims of IPV. In previous studies, they have presented higher rates of chronic stress (Campbell *et al.*, 2002), depression and depressive symptoms, anxiety, sleep problems, suicidal ideation, posttraumatic stress disorder and chronic mental illness (Amor, Echeburúa, Corral, Zubizarreta, and Sarasúa, 2002; Coker *et al.*, 2002). Additionally, these women have more frequent chronic health concerns such as lower energy levels, lower sense of wellbeing, less self-confidence, and less social support (Davis *et al.*, 2002; Hathaway *et al.*, 2000; Hurwitz *et al.*, 2006; Matud, 2004). IPV is also a risk factor for substance use (Coker *et al.*, 2002; Davis *et al.*, 2002; Lown, Schmidt and Wiley, 2006), particularly for alcohol dependence (Lown and Vega, 2001a).

As noted, a wide effect of IPV on health symptoms has been found, although the exact mechanism has not been described; nor are the results completely congruent. Additionally, an indicative group of symptoms or illnesses that might trigger a General Practitioner (GP) to suspect and screen for IPV has not been established.

Differences between countries and cultures are relevant, due to the influence culture and beliefs about gender have in generating violent behaviors against women (Echeburúa, Fernández-Montalvo, and Corral, 2008). The scarcity of studies in Spain or among Spanish speaking women concerning the relationship between health and IPV necessitates the development of studies designed to determine the magnitude of the problem in this context (Ruiz-Pérez and Plazaola Castaño, 2004).

In this study, our aim was to know the prevalence of women who suffer from IPV and quantify the victims of each type of abuse: physical, emotional and sexual. In addition, we wanted to determine if this abuse was significantly associated with somatic symptoms or with psychological health indicators. Based on evidence from other studies, we expected that women victims of any kind of violence would report a higher risk of physical and psychological symptoms and indicators.

Method

Participants

This was a cross sectional *ex post facto* design with data collected by survey (Montero and León, 2007; Ramos-Álvarez, Moreno-Fernández, Valdés-Conroy, and Catena, 2008). The study was conducted with women from two different sites. Both samples were randomly extracted from the entire list of women assigned to two Public Primary Health Centers (PHC). Our rural sample was drawn from a PHC located in the province of Cuenca comprised of towns of less than 1,500 inhabitants from. The second PHC was located in the city of Cuenca, with about 50,000 inhabitants.

Criteria for sample eligibility were: age between 30 and 65 and to be attending one of the two selected PHCs. Although some studies report that teens and young women have significant IPV rates, our study's age range was established attending to the results of previous surveys. These had reported that in the geographical area where this study took place, women in the selected age range were at higher risk of suffering IPV, even when controlling for economic independence (Instituto de la Mujer, 2006). Inclusion criteria for the interview also required potential participants to have a stable partner in the present or recent past, ability to understand spoken Spanish, and signing an informed consent.

Demographic information about eligible women who did not participate in the study was not available from the health service due to the data protection law. Consequently, no comparisons between the sample and the larger population could be made.

The final sample consisted of 333 women, 163 from urban areas and 170 from rural areas. The mean age was 49.78 ($SD = 11.13$), ranging from 30 to 66 years. Five women that were selected and invited to participate were 65 at the time of selection. At the time of the interview, they had already turned sixty-six. They were not discharged from the analysis. The sample size enabled us to estimate proportions with an accuracy of 2.23% and $\alpha = 5\%$ for categorical variables, in which the frequency of the event of interest was 11%, frequency of IPV in the region.

Instruments and measures

A structured interview was designed specifically for this study. It was composed of the following sections:

- Socio-demographic variables: date of birth, marital status, level of education, occupation, personal income per month, number of children, and number of persons in the family unit.
- Intimate partner violence. To assess IPV we used the Woman Abuse Screening Tool, WAST (Brown, Lent, Schmidt, and Sas, 2000) in its Spanish language version. The Spanish language version was validated for Spanish speaking women living in the USA (Fogarty and Brown, 2002). The WAST is an eight-item tool with three possible answers, ranging from 1 (*a lot*) to 3 (*nothing*), as follows. Possible responses to the first and second items on the questionnaire range from 'no tension/difficulty' to 'a lot of tension/difficulty'. Items 3 through 8 rate the frequency of the situations described in each item, being 'never', 'sometimes' and 'often' the respondents options (items shown in Table 2). The

reliability is very high, reaching a Cronbach alpha of .91 in the Spanish validation study. According to the authors (Fogarty and Brown, 2002), the first two questions can be used as a screening tool (WAST-Short). The first item asks «In general, how would you describe your relationship» ranging the level of tension. The second item asks «Do you and your partner work out arguments with» ranging the level of difficulty. To be used as a screening tool, these two items were recoded as follows: a score of 1 was assigned to the most extreme responses (*e.g.*, a lot of tension, great difficulty) and a score of 0 to the other two options. Scores on the WAST-Short are computed on a basis criterion cutoff point of 1. We asked two additional questions related to familial abuse history: «To your knowledge, did your father abuse your mother?» and «To your knowledge, in your partner's home, did his father abuse his mother?» The possible responses were «yes», «no», or «I don't know». A question about violence screening in Health Centers was also added, every woman was asked: «Do you think that all female patients in Health Centers should be screened for IPV?»

- Health indicators. To assess actual and recent past health history, we developed a checklist of illnesses and symptoms. We included some psychological health behaviors: smoking, alcohol intake, pill intake, insomnia, hypersomnia, loss of energy, difficulties concentrating, and difficulties making decisions. Participants had to respond if they currently experience or had recently experienced these behaviors.

Procedure

Two lists with all the eligible women in both the rural and urban areas were provided by the manager of Health Services in the province after reading and approving of the project. All confidential material and laws regarding data were fully complied with. The research committee of the Institute for Women's Issues of Castilla-La Mancha also approved of and funded this study.

Once the samples were randomly extracted, we contacted the women by letter, inviting them to participate. Letters of invitation were sent to women from November 2005 to February 2006. For safety reasons, as well as for avoiding interview attendance bias, any term related to abuse, partnership violence or marital behavior was not mentioned in the letter. Only the development of and invitation to participate in a study regarding women's health state was included in the letter.

If potential participants did not attend the first appointment, they were sent a second letter with another date for an appointment. Those who did not attend the second invitation were withdrawn from the sample, and new randomly extracted lists were generated until we reached the final number of women.

All the interviews were conducted by trained interviewers at the Health Center where the women usually visit their General Practitioner (GP). It was emphasized that all responses would remain strictly confidential. Prior to the interview participants were informed and asked to sign a consent form. After the interview every woman was offered informational brochures concerning help resources in the entire region and in the participant's specific area as well. These services are offered by the Institute of Women's

Issues which is a free public service. Spouses that accompanied their wives to the interview were invited to wait in the waiting room. World Health Organization recommendations for research on domestic violence were fully respected (World Health Organization, 1999).

Statistical analyses

To determine the reliability of the WAST, we calculated Cronbach α . To determine the sensibility and specificity of the first two items as a screening tool ROC curves were computed. The relationship between qualitative dependent variables and each of the independent variables was analyzed with chi-squared (χ^2) tests for qualitative independent variables, and Student's *t* test for quantitative independent ones.

To investigate the relationship between the presence of abuse and physical and psychological health variables, adjusted odds ratios (aORs) were calculated with logistic regression models adjusted by socio-demographic characteristics as covariables. Ratios were not computed when cells had less than 10 cases. Analyses were conducted using SPSS (v.14.0).

Results

A total of 838 women were mailed invitation letters. Fifteen letters were mailed back to us due to wrong addresses. Ten women were excluded from the sample because they were single and without a recent relationship history. Ultimately, 333 women were included in the analysis. The majority were living with a stable partner. Most were married (83.80%). There were low percentages of single (3.60%), widowed (6.30%), and separated or divorced participants (3.30%).

We found significant differences in marital status ($p = .0001$). Abused women were separated/divorced (15%) or single (8.30%) in a higher proportion, while women that were not abused were mainly married (87.50%). Additionally, the number of children was significantly different ($p = .046$), abused women had 4 or more children in a higher proportion (20.30%) than women that were not abused (9.20%). No significant differences were found for the rest of the socio-demographic variables.

TABLE 1. Socio-demographic characteristics of abused and never abused women.

| <i>Socio-demographic characteristics</i> | <i>Abused n = 60 n (%)</i> | <i>Never abused n = 273 n (%)</i> | <i>p value</i> |
|---|------------------------------------|---|----------------|
| <i>Marital Status</i> | | | |
| Married | 40 (66.70) | 239 (87.50) | .0001 |
| Living with stable partner | 3 (5) | 7 (2.60) | |
| Separated/Divorced | 9 (15) | 2 (.70) | |
| Widow | 3 (5) | 18 (6.60) | |
| Single | 5 (8.30) | 7 (2.60) | |
| <i>Age (years)</i> | | | |
| 18-35 | 7 (11.70) | 32 (11.70) | .882 |
| 36-45 | 14 (23.30) | 72 (26.40) | |
| 46-65 | 39 (65) | 169 (61.90) | |
| <i>Partner's age (years)</i> | | | |
| 25-40 | 10 (19.60) | 50 (20) | .927 |
| 41-56 | 20 (39.20) | 91 (36.40) | |
| 57-73 | 21 (41.20) | 109 (43.60) | |
| <i>Level of education</i> | | | |
| No education | 10 (16.70) | 71 (26.10) | .318 |
| Primary | 33 (55) | 122 (44.90) | |
| Secondary | 7 (11.70) | 41 (15.10) | |
| University | 10 (16.70) | 38 (14) | |
| <i>Partner's level of education</i> | | | |
| No education | 16 (29.10) | 71 (26.10) | .709 |
| Primary | 26 (47.30) | 136 (51.50) | |
| Secondary | 7 (12.70) | 39 (14.80) | |
| University | 6 (10.90) | 18 (6.80) | |
| <i>Personal month income (€/month)</i> | | | |
| No income | 31 (52.5) | 155 (58.5) | .758 |
| <600 | 11 (18.6) | 39 (14.7) | |
| 600-900 | 7 (11.9) | 32 (12.1) | |
| 900-1200 | 6 (10.2) | 17 (6.4) | |
| >1200 | 4 (6.8) | 22 (8.3) | |
| <i>Number of children</i> | | | |
| 0 | 6 (10.20) | 19 (7) | .046 |
| 1 | 4 (6.80) | 43 (15.80) | |
| 2 | 27 (45.80) | 123 (45.10) | |
| 3 | 10 (16.90) | 63 (23.10) | |
| >=4 | 12 (20.30) | 25 (9.20) | |
| <i>Number of persons in the family unit</i> | | | |
| 1 | 4 (6.90) | 14 (5.10) | .258 |
| 2 | 15 (25.90) | 65 (23.90) | |
| 3 | 14 (24.10) | 68 (25) | |
| 4 | 20 (34.50) | 87 (32) | |
| 5 | 1 (1.70) | 31 (11.40) | |
| >=6 | 4 (6.90) | 7 (2.60) | |

Note. Percentages are based on totals for each category.

The WAST presented a high internal consistency in this sample with a Cronbach alpha of .85, being .86 for the urban sample and of .84 for the rural sample. A twofold analysis was conducted according to the total questionnaire score (WAST) and to its screening properties derived from the first two items (WAST-SHORT).

In the complete sample, the proportion of openly declared physical abuse is 3.60%, emotional abuse is 13.80% and sexual abuse is 5.10%. The overall mean score in the WAST for the complete sample was 9.64 ($SD = 2.72$) ranging from 7 to 24. The mean was 9.79 ($SD = 2.77$) for the urban sample; and 9.50 ($SD = 2.67$) for the rural sample. After a *t*-Test, no significant differences were found between groups ($t = .977$; $p = .329$; $IC95\% = -.30$ to $.88$).

We compared the responses in each item between abused and non-abused women (Table 2). Significant differences were found in every item of the WAST ($p = .001$), as well as in the overall score ($p < .001$).

TABLE 2. Women Abuse Tool (WAST) item responses
(in percentages) and overall test score.

| <i>WAST Item*</i> | <i>Abused (n = 60)</i> | <i>Never abused (n = 272)</i> |
|--|----------------------------|---------------------------------------|
| 1. <i>In general, how would you describe your relationship?</i> | | |
| A lot of tension | 40 | 1.50 |
| Some tension | 43.30 | 16.90 |
| No tension | 16.70 | 81.60 |
| 2. <i>Do you and your partner work out arguments with</i> | | |
| Great difficulty | 33.30 | 1.80 |
| Some difficulty | 38.30 | 12.80 |
| No difficulty | 28.30 | 85.30 |
| 3. <i>Do arguments ever result in your feeling down or bad about yourself?</i> | | |
| Often | 35 | 3.3 |
| Sometimes | 30 | 28.8 |
| Never | 35 | 67.9 |
| 4. <i>Do arguments result in hitting, kicking or pushing?</i> | | |
| Often | 8.50 | 0 |
| Sometimes | 1.70 | 0 |
| Never | 89.80 | 100 |
| 5. <i>Do you ever feel frightened by what your partner says or does?</i> | | |
| Often | 18.30 | 0 |
| Sometimes | 33.30 | 0 |
| Never | 48.30 | 100 |
| 6. <i>Has your partner ever abused you physically?</i> | | |
| Often | 10 | 0 |
| Sometimes | 10 | 0 |
| Never | 80 | 100 |
| 7. <i>Has your partner ever abused you emotionally?</i> | | |
| Often | 33.30 | 0 |
| Sometimes | 43.30 | 0 |
| Never | 23.30 | 100 |

TABLE 2. Women Abuse Tool (WAST) item responses (in percentages) and overall test score (Cont.).

| <i>WAST Item*</i> | <i>Abused (n = 60)</i> | <i>Never abused (n = 272)</i> |
|---|----------------------------|---------------------------------------|
| <i>8. Has your partner ever abused you sexually?</i> | | |
| Often | 10 | 0 |
| Sometimes | 18.30 | 0 |
| Never | 71.70 | 100 |
| <i>Overall WAST Score**</i> | | |
| Mean | 13.93 | 8.70 |
| Range | 8-24 | 7-14 |
| <i>Other items studied</i> | | |
| <i>To your knowledge, did your father abuse your mother?***</i> | | |
| Yes | 10.20 | 3.70 |
| No | 89.80 | 95.20 |
| I do not know | 0 | 1.10 |
| <i>To your knowledge, in your partner's home, did his father abuse his mother?*</i> | | |
| Yes | 13.80 | 4.60 |
| No | 82.80 | 93.50 |
| I do not know | 3.40 | 1.90 |
| <i>Do you think that all female patients in Health Centers should be screened for IPV?***</i> | | |
| Yes | 100 | 93.80 |
| No | 0 | 4.80 |
| I do not know | 0 | 1.50 |

Notes. *Responses to these items were all significantly different between abused and never abused women. Chi-square estimates for items were significant at $p = .001$.

**Overall mean WAST score was significantly different between the two samples ($t = -20.03$, $df = 331$, $p < .001$).

***Responses to these items were not significantly different between abused and not abused women.

The majority of the women reported to be unaware of any abuse in their parents' homes (Table 2). The proportion of abuse in their childhood homes was 10.20% in abused women and 3.70% in non-abused, the difference was not statistically significant. We also asked about the occurrence of abuse in parents of their partners; in this case the proportion of abuse was significantly higher in the abused women (13.80%) than in non abused women (4.60%) ($p = .001$). All the abused women and most of the non-abused women (93.80%) agreed that health care providers should routinely screen women for IPV. Differences between both groups were not significant.

The data did not describe whether the different types of abuse were suffered by the same or different women; so we computed different variables to describe the pattern of abuse as follows. Those women who responded openly to physical, emotional or sexual abuse (items 6 to 8) were categorized in each type, respectively. No woman was found to answer positively to the question 4 «Do arguments ever result in hitting, kicking or pushing?» and negatively to the question 6 about physical abuse. Those who answered positively to the question 5 «Do you ever feel frightened by what your partner says or does?» were categorized also as emotionally abused. This response was

given by nine women, and in every case they had also answered positively to one or more of the items 6 to 8. One of them had also answered positively to being sexually abused and she was categorized as a combination of both types.

TABLE 3. Type of abuse - site comparisons.

| <i>Types of abuse suffered</i> | <i>Urban area n (%)</i> | <i>Rural area n (%)</i> | <i>Total sample n (%)</i> | <i>p</i> |
|--------------------------------|-----------------------------|-----------------------------|-------------------------------|----------|
| No abused | 132 (81) | 141 (82.90) | 273 (82) | |
| Physical | 0 (0) | 0 (0) | 0 (0) | |
| Emotional | 21 (12.90) | 16 (9.40) | 37 (11.10) | |
| Sexual | 0 (0) | 4 (2.40) | 4 (1.20) | .20 |
| Physical + emotional | 4 (2.50) | 1 (.60) | 5 (1.50) | |
| Emotional + sexual | 2 (1.20) | 4 (2.40) | 6 (1.80) | |
| Physical + emotional + sexual | 4 (2.50) | 4 (2.40) | 8 (2.40) | |
| <i>Resume analysis</i> | | | | |
| Never abused | 132 (81) | 141 (82.90) | 273 (82) | |
| Abused | 31 (19) | 29 (17.10) | 60 (18) | .64 |

As shown in Table 3 the proportion of IPV victims is 18% in the complete sample; 19% from the urban area and 17% from the rural area. No study participant reported solely physical abuse. We found physical abuse always to be combined with emotional abuse (1.50%), or with both emotional abuse and sexual violence (2.40%). The most frequent type of abuse reported was emotional abuse (11.10%). The least frequent was sexual abuse which was reported independently in 1.20% of the cases. Since we did not find significant differences between the women from rural and urban areas, we performed the rest of the analyses with the entire sample.

We analyzed the two first items of the WAST, to establish their properties as a screening tool. We found that 9.30% of the total sample had a score of 1 or 2 in the screening, indicating some kind of potential partner abuse. Taking these items as a screening tool and the whole questionnaire responses as a criterion, we observed a sensibility of 41.67 and specificity of 97.80 telling us that the WAST-short in our sample would correctly identify 97.80% of the non-abused women, but only 41.70% of the abused women.

When we analyzed the influence of IPV over women's health (Table 4), we found that abused women had a higher risk of suffering somatic symptoms than non-abused women. They had more than twice the risk of suffering migraines ($CI_{95\%}$ 1.25-5.17; $p = .01$), headaches ($CI_{95\%}$ 1.23-4.29; $p = .009$), respiratory illness ($CI_{95\%}$ 1.02-6.14; $p =$

.04), and abdominal pain ($CI95\%$ 1.09-4.38; $p = .03$). Abused women reported having of lack of appetite four times more than non-abused women in our study ($CI95\%$ 1.52-9.54; $p = .004$). In the rest of health symptoms assessed in the study, the risk of abused females was also higher, but we did not find significant differences with the groups of non-abused females. In some other cases, regression analyses could not be computed due to the small size of the group in each cell.

In relation to the psychological health indicators, we found that women who were victims of IPV had five times the risk of alcohol intake ($CI95\%$ 1.73-17.21; $p = .004$), more than twice the risk for antidepressant intake ($CI95\%$ 1.12-4.14; $p = .02$), almost twice the risk for a loss of energy ($CI95\%$ 1-3.51), and more than three times the risk for suffering hypersomnia ($CI95\%$ 1.4-9.19; $p = .008$), loss of energy ($CI95\%$ 1.00-3.51; $p = .05$) and presenting difficulties in making decisions. ($CI95\%$ 1.58-5.84; $p = .001$).

TABLE 4. Association between presence of abuse and indicators of physical and mental health.

| <i>Symptoms</i> | <i>Abused (n = 60) %</i> | <i>Never abused (n = 273) %</i> | <i>aOR (95%CI)</i> | <i>p</i> |
|----------------------------|----------------------------------|---|--------------------|----------|
| Hypertension | 26.70 | 27.10 | 1 (.50-2) | .99 |
| Paresthesias | 50 | 39.20 | 1.52 (.82-2.84) | .18 |
| Dizziness / faints | 43.30 | 31.50 | 1.72 (.92-3.22) | .09 |
| Migraines | 30 | 15.80 | 2.54 (1.25-5.17) | .01* |
| Headaches | 60 | 40.70 | 2.30 (1.23-4.29) | .009* |
| Flu / frequent colds | 38.30 | 28.90 | 1.58 (.84-2.99) | .15 |
| Breathlessness | 23.30 | 13.20 | 2.09 (.98-4.47) | .06 |
| Other breathing problems | 15 | 8.10 | 2.51 (1.02-6.14) | .04* |
| Indigestion / gastritis | 28.30 | 21.20 | 1.48 (.74-2.92) | .26 |
| Abdominal pain | 35 | 15.80 | 2.19 (1.09-4.38) | .03* |
| Diarrhea / constipation | 48.30 | 28.90 | 1.79 (.95-3.36) | .07 |
| Lack of appetite | 18.30 | 5.50 | 3.81 (1.52-9.54) | .004* |
| Painful sexual intercourse | 16.70 | 16.50 | 1.01 (.45-2.28) | .97 |
| Arthrosis | 35 | 27.80 | 1.52 (.77-2.98) | .23 |
| Alcohol intake | 11.70 | 2.60 | 5.45 (1.73-17.21) | .004* |
| Antidepressants intake | 36.70 | 20.20 | 2.14 (1.12-4.14) | .02* |
| Anti-anxiety medication | 33.30 | 23.50 | 1.10 (.54-2.16) | .83 |
| Sleeping pills | 23.40 | 14.70 | 1.48 (.68-3.19) | .32 |

TABLE 4. Association between presence of abuse and indicators of physical and mental health (Cont.).

| <i>Symptoms</i> | <i>Abused (n = 60) %</i> | <i>Never abused (n = 273) %</i> | <i>aOR (95%CI)</i> | <i>p</i> |
|----------------------------------|----------------------------------|---|--------------------|----------|
| Pain soothing pills | 61 | 54.60 | 1.00 (.50-2) | .87 |
| Insomnia | 41.70 | 28.30 | 1.73 (.91-3.28) | .09 |
| Hypersomnia | 18.30 | 7 | 3.59 (1.40-9.19) | .008* |
| Loss of energy | 45 | 31.50 | 1.87 (1-3.51) | .05* |
| Difficulties concentrating | 36.70 | 23.40 | 1.89 (.93-3.65) | .06 |
| Difficulties making decisions | 41.70 | 19 | 3.04 (1.58-5.84) | .001* |

Notes. Adjusted odds ratio (aOR) estimates (95% confidence intervals, 95%CI) were adjusted for marital status and number of children.

Discussion

We found that about one out of five women reported to suffer or have suffered some form of IPV. Emotional abuse was the most frequent type. In the victim group we found some women who did not report significant marital conflict or difficulties, which addresses the importance of education. Some somatic symptoms and psychological indicators were higher in the group of victims, although we cannot affirm causal relation.

We did not observe differences in most socio-demographic characteristics between abused and non-abused women, only in their marital situation. Abused women were more likely not to be in an intimate relationship at the time of the interview than the non-abused who were mostly married. Also, we observed differences in the number of children, being higher in abused women. Some previous research has stated that intimate partner violence affects all social classes (Humphreys, 2007), although some other studies have found that several socio-demographic characteristics were significantly related to the occurrence of IPV, *e.g.* increasing age was protective for physical and emotional abuse; women with lower incomes were more likely to experience IPV (Coker *et al.*, 2000; Raya Ortega *et al.*, 2004; Villavicencio Carrillo and Sebastián, 1999). Recently, Sokolov and Dupont (2005) stated the importance of research focused on race, class and gender inequality and marginalization in diverse communities, since victims of IPV could also be victims of other marginalization processes. To identify these potential differences we selected rural and urban areas. In this manner we were able to access different socio-demographic patterns, and have a better approach to the problem in different social environments. But differences were not found. Other groups with more diverse cultural differences should be addressed in order to accurately identify the socio-demographic elements that determine whether women are at higher risk for IPV.

In previous studies, 8.50% of women were identified by the WAST-short as experiencing abuse (Brown *et al.*, 2000). In this study, with the same two screening items, we found 9.30% of female victims of intimate partnership violence in the total sample. This percentage is relatively close to the proportion observed before. But when we analyzed the entire questionnaire, that percentage rose to 18%. The most frequent is emotional abuse, which may also appear with sexual abuse. These results are congruent with other studies previously reported conducted in Spain (Ruiz-Pérez, Plazaola-Castaño, Del Río-Lozano, and the Gender Violence Study Group, 2006). In other studies physical abuse was reported by approximately 20% of women (Kramer, Lorenzon, and Mueller, 2004; Plichta and Falik, 2001). However, in our sample, physical violence was always accompanied by emotional or sexual abuse, or with both of them. Recently, in a Spanish study to test the screening power of this questionnaire, results showed a sensitivity of 93% and specificity of 68% (Ruiz Pérez, Plazaola Castaño, Escribá Agüir, and Jiménez Martín, 2006). In our study, the two screening items underestimated the proportion of abused women, showing a very low sensibility to identify IPV. These first two questions inquired about marital adjustment, which could be expected to be low in cases of abuse. Additionally, some non-abused women might also report a low adjustment for other reasons; thus the proportion of screening was expected to be higher than the proportion of declared abuse and have a certain amount of false positive cases. However, we found the opposite. We observed that in the victims group, that had openly declared to suffer abuse, 16.70% did not report any tension in their relationships, and 28.30% reported no difficulty in solving arguments. This may be explained by the women's beliefs about marital tension, conflict resolution and above the concept of abusive relationship. Further analysis is needed to understand the representation and interpretation of the victims concerning the abuse they suffer, and the relationship with their partners. However, we can presume that these data might be related to the belief that IPV can be a part of the relationship, and even be related to some responsibility of the women themselves. In a previous study held in the European Union, 53% of women considered provocative behaviours of women as a cause of IPV. IPV was unacceptable in all circumstances and always punishable for 62% of the women; 1.70% of the women considered it acceptable in certain circumstances, and .80% considered it acceptable in all circumstances (Gracia and Herrero, 2006).

It can be provisionally construed that these women have assumed that abusive interactions with their partners is a normal part of the relationship. Should this be the case, it would be of great relevance to take steps in the educational contexts to prevent future generations from having that abusive concept as a part of the mental construct of marital relation (Cáceres and Cáceres, 2006). Therefore, one of the objectives of health and social policy should be to introduce educational means aimed at reducing the acceptability of all forms of IPV.

Female victims of IPV also suffered from more somatic symptoms. Particularly, we observed a higher risk for migraines and headaches, breathing problems, abdominal pain and lack of appetite. Their psychological health indicators show the effect that IPV has had over them; antidepressant intake, hypersomnia, lack of concentration, loss of

energy and difficulties making decisions. Additionally, they had higher rates of behaviors that might also damage their health, such as alcohol intake. Here, we would like to remark that Odds Ratios lower than three points should be interpreted with some caution since they may not be very reliable or replicable in other samples.

IPV is a risk factor for female health, but it is not frequently considered by GP. In a study about screening process, fewer primary care physicians screened for domestic violence than for other risk factors (Gerbert *et al.*, 2002). We cannot assume causal relationship, but as for many other physiological and environmental factors, it should be taken into account when a GP is making a diagnosis. One of the main obstacles in assessing IPV is that professionals do not feel comfortable routinely asking about IPV, considering it to be an intrusion. Previous research addressing women's opinions found that the proportion of women agreeing with routinely screening was 48% in abused women and 1.50 times higher in non-abused females (Gielen *et al.*, 2000). Another study reported that 57% of women would agree with screening by health personnel for IPV (Kramer *et al.*, 2004).

In our study, we found that 100% of the victims and 94% of the non-abused women agreed that health care providers should routinely screen all female patients attending primary health care centers. Women considering such questions as an intrusion should not be an explanation for not screening. However, routine screening for IPV in health centers is not an easy topic to decide upon, since evidence points low harm in asking (Cole, 2000), but not a clearly effective in taking further steps and/or intervention upon detection in a screening. Nevertheless, an early identification of IPV could reduce the negative consequences on physical, psychological and social health of the victims (Hyman, Guruge, Steward, and Ahmad, 2000).

We cannot omit some of the limitations of this study. The first has to do with the participants. Even though it was a random sample, we cannot affirm that they represent the total female population, since some battered women might not have attended the health center for interviews. Another limitation would be related to the occurrence of abuse in the group of participant women. It might be underestimated, since not all victims disclose their situation. However, the lack of total accuracy of the number does not detract from the importance of routine screening at the general practice level to detect intimate partner violence. Another limitation is that we did not confirm diagnosis and symptoms with medical records, because many of the indicators are not documented in the files and we would have a recording bias. Thus, some proportion of the symptoms and health indicators might be misclassified. Intimate partner violence is a public health problem affecting an extremely high proportion of women who not only suffer from abuse but also suffer from the health consequences resulting from IPV.

Finally we would like to mention that not only heterosexual women suffer from IPV. International data report that between a 70 and 95% of the perpetrators are men. Culturally there is a traditional discrimination against women in the most populated cultures that leads some men to think that they must control their partner's behavior and violence is a right way to do it. Violence is much too widely accepted, and some other studies present controverted results, finding gender symmetry in violence rates

although generally males inflict more damage than females (Straus and International Dating Violence Research Consortium, 1994). Also homosexual and transgender individuals have reported high rates of sexual, physical and psychological violence from their partners (Heintz and Melendez, 2006), although there are very few studies focusing on these populations. Violence in personal relationships needs much more attention from research, social institutions, policies and politics. Health Centers play an essential role. And health providers should be trained and be provided adequate resources to offer the best care not only with injuries, but also with the long term health consequences related to IPV.

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