

Intimate Partner Violence as a Factor Associated to Health Problems

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Objective. To study the impact of intimate partner violence (IPV) on women's physical and psychological health.

Design. Cross-sectional study.

Setting. Primary care centers in 3 Andalusian provinces.

Patients. A total of 425 women, aged 18 to 65 years, were recruited following the same randomisation process in 6 primary care centers.

Measurements. A self-administered structured questionnaire for this study was used to gather the information. As well as sociodemographic variables, the instrument included questions about IPV, physical health indicators (chronic disease and type, lifetime surgeries, days in bed), psychological health (psychological morbidity, use of tranquilizers, antidepressants, pain killers, alcohol and recreational drugs), self-perceived health and social support.

Results. Of 425 women, 31.5% ever experienced any type of partner violence. Women experiencing IPV were more likely to suffer a chronic disease. IPV was significantly associated with a number of adverse health outcomes, including spending more than 7 days in bed in the last three months (ORa=2.96; CI 95%, 1.00-8.76), psychological morbidity (ORa=2.68; CI 95%, 1.60-4.49) and worse self-perceived health (ORa=1.89; CI 95%, 1.04-3.43), after controlling for potential confounding variables.

Conclusion. This study shows that ever experiencing IPV is associated with a worse psychological and self-perceived health. Physical injuries are not the only «evidence» of the presence of IPV. Primary health care professionals are in a privileged position to help women who are abused by their partners.

Key words: Domestic violence. Battered women. Women's health. Mental health. Primary health care.

LA VIOLENCIA CONTRA LA MUJER EN LA PAREJA COMO FACTOR ASOCIADO A UNA MALA SALUD FÍSICA Y PSÍQUICA

Objetivo. Estudiar el impacto en la salud física y psíquica de la violencia contra la mujer en la pareja.

Diseño. Transversal.

Emplazamiento. Centros de atención primaria de 3 provincias de la Comunidad Autónoma Andaluza.

Participantes. Un total de 425 mujeres de entre 18 y 65 años asistentes a 6 centros. Se eligieron aleatoriamente siguiendo el mismo procedimiento en cada centro.

Mediciones principales. Cuestionario estructurado autoadministrado que recoge, además de las variables sociodemográficas, variables relacionadas con el maltrato e indicadores de salud física (presencia de enfermedad crónica y tipo, intervenciones quirúrgicas a lo largo de la vida y días pasados en cama), psíquica (morbilidad psíquica, consumo de tranquilizantes, antidepresivos, analgésicos, alcohol y drogas no legales), salud autopercebida y apoyo social.

Resultados. La frecuencia de maltrato fue del 31,5%. Las mujeres víctimas de maltrato presentaron mayor riesgo de padecer enfermedades crónicas. La asociación entre el maltrato y pasar más de 7 días en cama fue estadísticamente significativa (*odds ratio* [OR] = 2,96; intervalo de confianza [IC] del 95%, 1,00-8,76). El maltrato presentó una asociación significativa con la morbilidad psíquica (OR = 2,68; IC del 95%, 1,60-4,49) y con la salud autopercebida (OR = 1,89; IC del 95%, 1,04-3,43) tras ajustar por otras variables.

Conclusiones. Los resultados de este trabajo muestran que el maltrato global se asocia con una peor salud psíquica y una peor salud autopercebida. Las lesiones físicas no son la única «prueba» de la existencia de violencia doméstica. Los profesionales de atención primaria pueden desempeñar un papel esencial para ayudar a las mujeres que sufren abusos de sus parejas.

Palabras clave: Violencia doméstica. Mujer maltratada. Salud de la mujer. Salud mental. Atención primaria.

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Introduction

Domestic violence is defined as physical, sexual, and psychological violence against women in the family milieu by a person who is or was her intimate partner.¹ Information regarding the prevalence of abuse usually cited in Spain is provided by the Ministry of Domestic Affairs (*Ministerio del Interior*), and refers to the number of reports of domestic violence to the police. In the year 2002 a total of 43 313 such reports were filed. With regard to mortality, the most recent figures show that in 2002, 52 women died as a consequence of physical abuse. At the time of writing, 61 women had died during 2003 from physical abuse.²

Most studies have concentrated on the prevalence of domestic violence and the usefulness of screening instruments. However, recent interest has centered on ways to evaluate the impact of abuse on women's health. Although it is clear that any type of assault or violence involves negative consequences for the victim, the extent of these consequences is greatly amplified when abuse occurs within the milieu of an intimate relationship, given that such abuse is chronic, and given that the context, in principle, should represent a source of intimacy and security for women.³

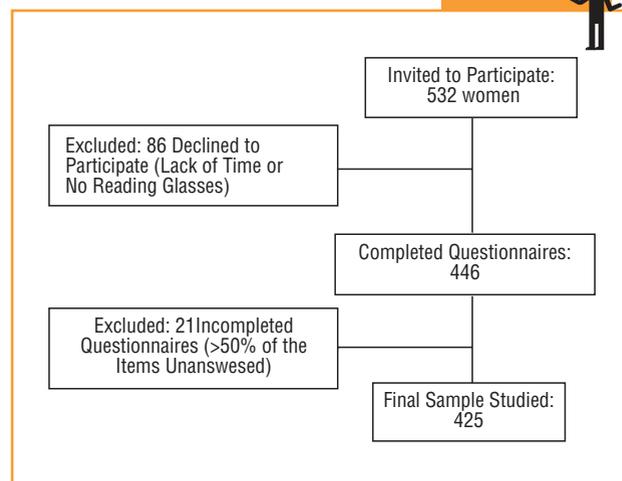
Biomedical models usually consider violence as a health problem per se, and often classify injuries as self-inflicted. However, in addition to health problems, intimate partner violence is also a risk factor for poor health. Abuse can lead to a variety of short- and long-term illnesses and to both physical and mental health problems.⁴⁻⁶

The most direct and visible effects of violence are physical injury, but episodes of abuse often recur over a period of time.⁷ It is only recently that the long-term impact on women's health has begun to be investigated. The physical health problems reported to date include functional physical limitations, greater numbers of diagnostic tests and surgical procedures, and more days spent in bed, as well a greater frequency of health service usage.⁸⁻¹⁰ In addition, intimate partner abuse has been associated with an increased risk of developing chronic diseases such as hypertension, diabetes, chronic pain, gastrointestinal disorders, somatic problems and fibromyalgia.¹¹⁻¹³

Regarding the impact on mental health, it is now believed that abuse increases the frequency of a number of symptoms and clinical conditions ranging from anxiety, insomnia and low self-esteem to clinical depression or posttraumatic stress disorder.³ Violence also harms health by increasing negative behaviors such as smoking, drinking and drug use, high-risk sexual behaviors and physical inactivity.^{7,14}

Earlier studies have also shown that the proportion of victims of abuse who report poorer health is larger than

Material and methods



General Scheme of the Study

Cross-sectional study with a self-administered questionnaire to estimate the impact of intimate partner violence on women's physical and mental health.

the proportion of women who have not suffered intimate partner violence.¹³ Self-perceived health status reflects how a person perceives his or her own physical and psychological health, and has been found to be a good predictor of other more objective indicators such as life expectancy, mortality, chronic diseases and use of health services.

The only published study to examine the frequency of domestic violence in Spain is the large survey carried out by the *Instituto de la Mujer* (Institute of Women's Affairs) in 1999, which placed the percentage of women technically considered to be victims of abuse at 12.4%. In addition to looking at the prevalence of abuse, this survey inquired about a number of physical and psychiatric symptoms, and found that all were more frequent among abused than among nonabused women.¹⁵

The present study was designed to investigate the impact of domestic violence on physical and mental health in women seen at primary care centers in three provinces in Andalusia, southern Spain.

Material and Methods

Subjects

Participants in this cross-sectional study were women between 18 and 65 years old who were seen at 6 primary care centers in the Autonomous Community of Andalusia (southern Spain) between May and July 2003. The centers were chosen because of their easy access. We excluded women who had not had an inti-

mate partner at any time during their life, who were unable to read or write, non-Spanish women who did not understand Spanish, and women with severe cognitive impairment. In accordance with the Ethical and Safety Recommendations for Research on Domestic Violence Against Women,¹⁶ we also excluded women who came to the center with their husband or partner. For an expected frequency of illness in abused women of 50%, a statistical power of 80% and a 95% confidence level, a minimum of 306 participants were needed to detect a minimum odds ratio (OR)=2.

At least 2 women per day were included from each health center, depending on the circumstances, and a total of 532 women were contacted. Participants were selected with the same randomized procedure at all centers. If a woman we contacted did not fulfill the inclusion criteria, the next woman to enter the center was contacted for possible inclusion.

Variables and Instruments

A structured, self-administered questionnaire designed specifically for this study was used to collect information. The questionnaire consisted of 21 closed items, and the time needed to complete it was about 10 minutes. The variables investigated in this study are described below.

Sociodemographic variables: age (quantitative), marital status (married, unmarried, separated or divorced, widow), employment status (housewife, employed outside the home, student, unemployed), educational level (no formal education, primary school, technical school, secondary school, 2- or 3- year university certificate, university degree), monthly household income (<600 €, 600-900 €, 900-1200 €, >1200 €), and number of children (quantitative).

Variables related with abuse: presence of different types of abuse (physical [slap or punch, kick, push, etc], psychological [threats, insults, humiliating remarks, abnormal jealousy, fear, etc], or sexual) with the woman's current partner or a previous partner. Each of these 6 questions had three possible responses: "Many times", "Sometimes" or "Never." The woman was considered to be a victim of abuse if she answered "Many times" or "Sometimes" to any of the 6 items on abuse.

Items relating to abuse were taken from a questionnaire used in an earlier survey; this instrument was shown to be easy to use and understand, and to be readily accepted by respondents.¹⁷ The items were designed on the basis of scales used in earlier studies, including the WHO Multi-Country Study on Women's Health and Domestic Violence Against Women.¹⁸⁻²⁰

Physical health indicators: the presence of chronic illness (yes/no) was recorded with the item "Do you have, or have you ever had, any chronic illnesses?" The possible responses were "hypertension," "diabetes," "asthma," "cancer," and "other." Information was also requested about the number of surgical procedures during the woman's lifetime, and about the number of days spent in bed during the previous 3 months.

These 3 indicators of physical health were chosen as the most appropriate for a self-administered questionnaire requiring little time to complete.

Mental health indicators: the questionnaire sought information about the presence of psychiatric morbidity (yes/no), which was recorded with the Goldberg General Health Questionnaire

(GHQ-12). This instrument has been adapted and validated for the Spanish population and is used widely to measure psychiatric morbidity in nonpsychiatric care settings. Closed items were used to obtain information regarding the use during the previous 3 months of tranquilizers, antidepressants, analgesics, alcohol, and illegal drugs.

Self-perceived health: one item solicited information on self-perceived health: "How would you describe your current state of health compared to one year ago?" The possible responses were "Better," "The same," or "Worse."

Social support: a single yes/no item gave participants the opportunity to indicate the presence or absence of social support.

The *dependent variables* in this study were indicators of physical health, indicators of psychiatric health, and self-perceived health. The *independent variables* were presence of abuse, sociodemographic variables, and social support.

Procedure

Information was recorded in the waiting room after the woman had been seen by the doctor or while she was waiting to be seen. The questionnaires were given to the women by the physician in the examining room or at the end of the visit, or by other participating health center staff members in the waiting room. After the woman's participation was requested and after fulfillment of the inclusion criteria was verified, each woman was given a brief description of the study to explain that its purpose was to investigate women's health. The questionnaire was given to each woman in an open envelope. The envelope contained pamphlets with information about the resources available in the woman's health care district, associations for abused women, and the telephone numbers of different services that provide aid to abused women.

It was emphasized that all responses would remain confidential and anonymous. The women were urged to complete all items of the questionnaire and to ask any questions they might have about the study. After the woman had completed the questionnaire, she sealed it in the envelope and placed the envelope in a collection box set up at each health center.

Statistical Analysis

The SPSS (v. 11) was used for all statistical analyses.

Descriptive statistics were generated first. For quantitative variables we used numeric summaries (mean, median, standard deviation, minimum, and maximum) and graphic displays (bar charts and histograms), and for qualitative variables we used frequency tables (number and percentage of cases) and graphic displays (pie charts).

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 or analysis of variance (ANOVA) (for quantitative independent variables). The strength of association was estimated as the crude odds ratio (cOR) with 95% confidence intervals. The relationship between quantitative dependent variables and qualitative independent variables was analyzed with Student's *t* test or ANOVA.

The relationship between each health variable and the presence of abuse was estimated with logistic regression models adjusted for sociodemographic characteristics and the presence of social support. When the dependent variable was a continuous variable, linear regression analysis was used.

Results

During the study period 532 women seen at 6 participating health centers were approached and invited to take part in the study. Of this number, 86 declined to participate (most because of lack of time or because they had not brought their reading glasses with them). A total of 446 completed questionnaires were returned, 21 of which were excluded because of incomplete data (>50% of the items left unanswered). The final sample consisted of 425 women, for a response rate of 79.88%.

Analysis of the sociodemographic characteristics showed the most frequent age group to be women 18 to 35 years old (42.6%). One third (33.6%) of the women had 2 chil-

TABLE 1 Sociodemographic Characteristics of Abused and Nonabused Women

Sociodemographic Characteristics	Nonabused	Abused
	N=291 N (%) ^a	N=134 N (%) ^a
Marital status		
Married	221 (76.2)	74 (55.6)
Unmarried	58 (20)	30 (22.6)
Separated/divorced/widowed	11 (3.8)	29 (21.8) ^a
Employment status		
Housewife	140 (49.1)	58 (44.3)
Employed/student	118 (41.4)	58 (44.3)
Unemployed	27 (9.5)	15 (11.4)
Educational level		
University certificate or degree	72 (25.3)	24 (19.8)
Technical/secondary	61 (21.4)	20 (16.5)
Primary	134 (47)	59 (48.8)
No formal education	18 (6.3)	18 (14.9) ^b
Monthly household income		
>1200 €	82 (29.7)	21 (16.3)
900-1200 €	76 (27.5)	36 (27.9)
600-900 €	76 (27.5)	45 (34.9)
<600 €	42 (15.3)	27 (20.9) ^b
Age		
18-35 years	134 (46.4)	47 (35.9)
36-45 years	91 (31.5)	40 (30.5)
46-65 years	64 (22.1)	44 (33.6) ^b
Number of children		
0	80 (27.7)	32 (24.4)
1	56 (19.4)	24 (18.4)
2	101 (34.9)	40 (30.5)
≥3	52 (18)	35 (26.7)

^aMissing responses were not counted, hence the value of N for each variable does not match the total value of N. ^aP<.001. ^bP<.05.

dren. Most women were married (69.4%) and nearly half (46.6%) were housewives. Nearly half of the participants (45.4%) had received primary school education only. The proportion of women who reported a monthly household income less than 600 € was 16.2%.

The results for physical health indicators showed that one third of the women (33.6%) reported at least one chronic illness. The most frequent, mentioned by 14.4% of the women, was hypertension, followed by asthma (10.1%), and "other" (20.4%). Diabetes, cancer, or both, were mentioned by 4.2%. Slightly more than half (57.5%) responded that they had undergone at least one surgical procedure during their lifetime, and the mean number of lifetime surgical procedures was 2. Time spent in bed during the previous 3 months was more than 7 days in 4.7% of the women, and the mean time was 1.4 days.

Psychiatric morbidity was reported by 39.3% of the women. About half (49.4%) had used analgesics, 34.7% had taken tranquilizers, 31.9% had used antidepressants, 17% reporting using alcohol, and 3.4% noted illegal drug use. A slight majority of the respondents (56.5%) considered their health status to be the same as one year previously, whereas 24% felt it was worse, and 19.5% felt it was better.

Almost one third of the women (31.5%) reported physical, mental or sexual abuse by a current or previous partner. Abuse was described as occurring "many times" in 10.1% of the cases.

Sociodemographic differences between women who had and had not been abused at any time during their life are summarized in Table 1. In comparison to nonabused women, women who reported suffering abuse were more frequently separated, divorced or widowed ($P<.001$), had more frequently received no formal education ($P<.05$), more frequently reported a monthly household income of less than 900 € ($P<.05$), and tended to be older than 46 years ($P<.05$).

Relationship Between Physical Health Indicators and Presence of Abuse

Table 2 shows the frequencies and crude associations between each physical health indicator and the presence of abuse, and the association after adjustment for age, marital status, level of education, household income and social support.

Women who had been victims of abuse were at a higher risk of chronic illness, although the differences were not statistically significant. According to type of disease or illness, only the category "other diseases" showed a statistically significant association with abuse (aOR=2.16; 95% CI, 1.10-4.25). The association between abuse and having spent more than 7 days in bed during the previous 3 months was also statistically significant (aOR=2.96; 95% CI, 1.00-8.76).

TABLE 2 Association Between Presence of Abuse and Indicators of Physical Health*

Indicators of Physical Health	Abuse of Any Type at Any Time				
	No (%)	Yes (%)	OR (95% IC)	aOR (95% IC)	
Chronic disease	71 (28.6)	55 (43.3)	1.90 (1.21-2.97)	1.57 (0.88-2.80)	
Hypertension	25 (12.4)	17 (19.1)	1.67 (0.85-3.28)	0.98 (0.32-2.96)	
Asthma	17 (8.8)	11 (13.3)	1.59 (0.71-3.56)	1.19 (0.43-3.31)	
Diabetes, cancer, or both	8 (4.3)	3 (4)	0.92 (0.23-3.57)	0.41 (0.02-7.06)	
Other diseases	31 (14.9)	33 (31.4)	2.61 (1.49-4.58)	2.16 (1.10-4.25)	
Days spent in bed during the previous 3 months					
	0	248 (86.7)	107 (80.5)		
	1-7	29 (10.1)	15 (11.3)	1.19 (0.61-2.32)	0.91 (0.40-2.04)
	>7	9 (3.1)	11 (8.3)	2.83 (1.14-7.03)	2.96 (1.00-8.76)
Lifetime surgical procedures	167 (59)	72 (54.1)	0.82 (0.54-1.24)	0.92 (0.55-1.52)	
	\bar{X} DE	\bar{X} DE	t p	t p	
Number of procedures	2.01 1.68	1.97 1.31	0.20 0.835	-1.01 0.313	

*aOR indicates odds ratio adjusted for age, marital status, level of education, monthly household income, and social support.

TABLE 3 Association Between Presence of Abuse and Indicators of Mental and self-Perceived Health*

Indicators of Mental Health	Abuse of Any Type at Any Time			
	No (%)	Yes (%)	OR (95% IC)	aOR (95% IC)
Substance use during the previous 3 months				
Analgesics	112(46.7)	55 (56.1)	1.46 (0.91-2.34)	0.71 (0.37-1.33)
Tranquilizers	47 (26.9)	44 (50.6)	2.78 (1.62-4.76)	1.46 (0.72-2.95)
Antidepressants	45 (26)	35 (44.9)	2.31 (1.32-4.05)	1.16 (0.55-2.46)
Alcohol	20 (13.5)	15 (25.9)	2.23 (1.05-4.74)	1.28 (0.46-3.54)
Illegal drugs	2 (1.5)	4 (8.5)	5.95 (1.05-33.65)	-
Mental health				
Psychiatric morbidity	89 (30.9)	76 (57.6)	3.03 (1.98-4.64)	2.68 (1.60-4.49)
"Worse" self-perceived health	57 (19.6)	45 (33.6)	2.07 (1.30-3.29)	1.89 (1.04-3.43)

*aOR indicates odds ratio adjusted for age, marital status, level of education, monthly household income, and social support.

Relationship Between Mental Health Indicators, Self-Perceived Health and Presence of Abuse

Table 3 shows the frequency and crude association for each mental health indicator and for self-perceived health with the presence of abuse, and the association after adjusting for age, marital status, level of education, household income, and social support. Abuse was significantly associated with psychiatric morbidity (aOR=26.8; 95% CI, 1.60-4.49) and with poorer self-perceived health (aOR=1.89; 95% CI, 1.04-3.43) after adjustment for each of the variables listed above.

Certain substances were used more frequently by abused women than by nonabused women, e.g., analgesics (56.1% vs 46.7%), tranquilizers (50.6% vs 26.9%), antidepressants (44.9% vs 26%), alcohol (25.9% vs 13.5%), and illegal

drugs (8.5% vs 1.5%). Although the association between abuse and substance use was significant for all substances except analgesics, the differences were no longer significant after adjustment for age, marital status, level of education, household income, and social support.

Discussion

We should first note some potential limitations to the present study. The most important limitations are related with our exclusion criteria.

We excluded women who were accompanied by their partner. Although the frequency of abuse may have been highest among these women, the Ethical and Safety Re-

TABLE 4
Studies That Analyzed Different Illnesses and Health Indicators Related With Abuse

Author and Year of Publication (ref.)	Physical Health	Mental Health
Coker et al, 2002 ¹²	Chronic illness Injuries Self-perceived health	Substance use (smoking, drinking, and drugs) Anxiety and depression Suicidal ideas/acts
Ramos Lira et al, 2001 ²⁶		Drinking Mood-altering drug Marihuana use Cocaine use
Lown et al, 2001 ¹¹	Chronic health conditions: respiratory problems, diabetes, myocardial infarction, hypertension, arthritis, hearing and vision problems, digestive system problems Somatic symptoms (gastrointestinal, cardiopulmonary, neurological, sexual, reproductive, pain) Self-perceived	Self-perceived health
Petersen et al, 2001 ¹⁴	Visits to health care services during the previous year (family doctor, obstetrician-gynecologist, mental health, emergency room)	Depression Daily stress Negative self-esteem
Coker et al, 2000 ¹³	Musculoskeletal disease (neck pain, migraine, arthritis, vision, and hearing problems) Cardiovascular disease (hypertension, angina, diabetes, circulatory problems) Genitourinary disease (sexually transmitted diseases, urinary tract infections, infertility) Digestive tract diseases (gastric ulcer, reflux, diarrhea or constipation) Hospitalizations during the previous year Visits to the doctor during the previous year	Self-perceived mental health
Hathaway et al, 2000 ²⁵	Poor physical health during more than 14 days during the previous month	More than 14 days during the previous month: sad, depressed, worried, anxious, poor mental health insomnia Suicidal thoughts
Leserman et al, 1996 ¹⁰	Number of days in bed during the previous 3 months Number of surgical procedures	
McCauley et al, 1995 ²⁷	Hospitalizations during the previous year Lifetime surgical procedures	

commendations for Research on Domestic Violence Against Women advise against inclusion.¹⁶ Moreover, abuse has been associated with low sociocultural levels, but because of the methods used here we opted to exclude women who were unable to read. These criteria may have led us to underestimate the actual frequency of abuse.

Given the subjective nature of the responses in our self-administered questionnaire, information bias may have been introduced because of reluctance on the part of some women to cooperate fully, because some may have provided responses they considered socially acceptable, or because some of the questions may have been misunderstood. The cross-sectional study design makes it difficult to infer causality or a mechanism of association that might link abuse to the health problems we identified. A further limitation which should be kept in mind for future studies is the lack of information on a possible childhood history of physical or sexual abuse—a potential confounding factor in studies of health problems.²¹

In this study of women who visited primary health care centers, the global frequency of abuse was 31.5%. This figure is consistent with the findings of other studies performed in health care settings, particularly in English-speaking countries, where the reported prevalence of abuse ranged from 20% to 55%.^{22,23}

The sociodemographic characteristics found to be significantly more frequent among women who suffered abuse were older age, low level of education, low household income, and being separated, divorced or widowed. These characteristics, as in studies done in other countries,^{3,13} are evidence of the unsatisfactory economic situation these women may find themselves in. This situation, together with difficulties in finding employment, may force women to remain dependent on their partner and may thus prevent them from starting a new life on their own. Because of the cross-sectional design used in the present study, we were unable to establish a relationship between being separated or divorced and the greater frequency of abuse,

since separation or divorce can in themselves be a consequence of abuse.

Table 4 lists the different types of diseases and health indicators that earlier studies have examined. Most of these studies found a positive association between abuse and physical health problems. Abused women in the present study more frequently reported chronic diseases and had spent more days in bed during the previous 3 months. These results are consistent with the findings of studies that used indicators similar to the ones we investigated.^{10,12} For example, a population-based study in the USA found that women who had been victims of physical abuse were 1.6 times as likely to develop chronic diseases as women who had not suffered any type of abuse.¹² Likewise, a study of patients seen in a gastroenterology practice found that abused women spent more days in bed and had undergone more surgical procedures than nonabused women.¹⁰

In studies that investigated mental health, there was greater consistency in terms of the diseases and indicators used to investigate the impact of intimate partner abuse (Table 4). The results of the present study show that in global terms, abuse is associated with poorer mental health and a greater frequency of substance use. However, after adjustment for potential confounders, the association between substance use and partner abuse was no longer significant. It should none the less be borne in mind that the lack of a significant association might have been the result of the small sample size, which may have reduced the power of our analysis. Abuse was also associated significantly with worse self-perceived health, a finding consistent with the results of earlier studies.^{13,24} In a population-based study in the USA, women who were victims of abuse showed more depression and anxiety than nonabused women.²⁵ A Mexican study also found significant differences in the use of mood-altering drugs (antidepressants, amphetamines, tranquilizers, and stimulants) among women who were victims of domestic violence and nonvictims.²⁶ These results suggest the hypothesis that abused women may try to soothe their reactions to trauma by consuming excessive amounts of substances such as mood-altering drugs, alcohol, or illegal drugs.

A significantly larger proportion of abused than nonabused women in the present study reported feeling in worse general health than one year previously, a finding also noted in earlier studies.^{13,24}

To conclude, our results should serve as a warning and wake-up call to health care professionals, who should realize that domestic violence is a frequent problem in their practices. Family physicians should recall at all times that physical injuries are not the only “proof” of domestic violence, but are only the tip of the iceberg. Practically all women contact primary care services at some time during their life, and this means that the primary care setting can play an essential role in helping women who are victims of inti-

Discussion
Key points

What Is Known About the Subject

- Few studies have been done in Spain on intimate partner violence against women, and in general there are few studies on the impact of this form of abuse on women's health.
- In other countries abuse has been found to constitute an important risk factor for poor physical and mental health.
- The actual impact of abuse on the victim's health in Spain is not known.

What This Study Contributes

- A larger proportion of women who are victims of abuse show psychiatric morbidity and worse self-perceived health in comparison to women who have not been victims of violence.
- The repercussions of abuse on women's health go beyond obvious physical injury.
- The symptoms of any woman who visits a primary health care center may hide a possible history of abuse, and this should be kept in mind in the differential diagnosis

mate partner abuse. For this to happen, however, all professionals should become aware of the facts pertaining to the impact of partner violence on women's health, and should learn to detect the signs of partner violence against women. We recommend further research into the dimension of the problem in Spain, and into the ways in which different types of abuse influence the victim's health.

References

1. Gundersen L. Intimate-partner violence. The need for primary prevention in the community. *Ann Intern Med* 2002;136:637-40.
2. Relación víctimas de la violencia de género año 2003 [access 10/11/03]. DAvailable from <http://www.separadasydivorciadas.org/muertas2003.html>
3. Villavicencio P. Violencia doméstica: su impacto en la salud física y mental de las mujeres. Madrid: Ministerio de Trabajo y Asuntos Sociales e Instituto de la Mujer, 1999.
4. García Moreno C. Violencia contra la mujer. Género y equidad en la salud OPS/OMS. Harvard: Harvard Center for Population and Development Studies, 2000.

5. Campbell J, Jones AS, Dieneman J, Kub J, Schollenberger J, O'Campo P, et al. Intimate partner violence and physical health consequences. *Arch Inter Med* 2002; 162:1157-63.
6. Clark JP, Du Mont J. Intimate partner violence and health. *Can J Public Health* 2003;94:52-8.
7. Heise L, Ellsberg M, Gottemoeller M. Ending violence against women. Population Reports, series L, n.º 11. Baltimore: Johns Hopkins University School of Public Health, Population Information Program, December 1999.
8. Campbell J, Soeken K. Forced sex and intimate partner violence: effects on women's risk and women's health. *Violence Against Women* 1999;5:1017-35.
9. Krug E, Dahlberg L, Mercy J, editors. World report on violence and health. Geneva: World Health Organization, 2002.
10. Leserman J, Drossman D, Li Z, Toomey T, Nachman G, Glogau L. Sexual and physical abuse history in gastroenterology practice: how types of abuse impact health status. *Psychosom Med* 1996;58:4-15.
11. Lown EA, Vega WA. Intimate partner violence and health: self-assessed health, chronic health, and somatic symptoms among Mexican American women. *Psychosom Med* 2001;63:352-60.
12. Coker AL, Davis KE, Arias I, Desai S, Sanderson M, Brandt HM, et al. Physical and mental health effects of intimate partner violence for men and women. *Am J Prev Med* 2002;23:260-8.
13. Coker AL, Smith PH, Bethea L, King MR, McKeown RE. Physical health consequences of physical and psychological intimate partner violence. *Arch Fam Med* 2000;9:451-7.
14. Petersen R, Gazmararian J, Clark KA. Partner violence: implications for health and community settings. *Womens Health Issues* 2001;11:116-25.
15. Instituto de la Mujer. La violencia contra las mujeres. Resultados de la macroencuesta. Madrid: Ministerio de Trabajo y Asuntos Sociales e Instituto de la Mujer, 1999.
16. World Health Organization. Putting women's safety first: ethical and safety recommendations for research on domestic violence against women. Global Programme on Evidence for Health Policy. Geneva: World Health Organization, 1999.
17. Mata N, Ruiz I. Detección de violencia doméstica en mujeres que acuden a un centro de atención primaria. Tesina Master de Salud Pública y Gestión Sanitaria. Granada: Escuela Andaluza de Salud Pública, 2002.
18. World Health Organization. WHO Multi-Country Study. On Women's Health And Life Events. Department of Gender and Women's Health. Family and Community Health. Geneva: World Health Organization, 2003.
19. Straus MA. Measuring intrafamily conflict and violence: the Conflict Tactics (CT) scales. In: Straus M, Gelles R, editors. Physical violence in american families: risk factors and adaptation to violence in 8145 families. New Brunswick: Transaction Publishers, 1990; p. 29-48.
20. Coker AL, Smith PH, McKeown RE, King MJ. Frequency and correlates of intimate partner violence by type: physical, sexual and psychological battering. *Am J Public Health* 2000;90:553-9.
21. Campbell JC. Health consequences of intimate partner violence. *Lancet* 2002;359:1331-6.
22. Richardson J, Coid J, Pruckevitch A, Chung WS, Moorey S, Feder G. Identifying domestic violence: cross sectional study in primary care. *BMJ* 2002;324:274-7.
23. Bradley F, Smith M, Long J, O'Dowd T. Reported frequency of domestic violence: cross sectional survey of women attending general practice. *BMJ* 2002;324:271-4.
24. Coker AL, Smith PH, Thompson MP, McKeown RE, Bethea L, Davis KE. Social support protects against the negative effects of partner violence on mental health. *J Womens Health Gend Based Med* 2002;11:465-76.
25. Hathaway JE, Mucci LA, Silverman JG, Brooks DR, Mathews R, Pavlos CA. Health status and health care use of Massachusetts women reporting partner abuse. *Am J Prev Med* 2000;19:302-7.
26. Ramos Lira L, Saltijeral Méndez MT, Romero Mendoza M, Caballero Gutiérrez MA, Martínez Vélez NA. Violencia sexual y problemas asociados en una muestra de usuarias de un centro de salud. *Salud Pública de México* 2001;43:182-91.
27. McCauley J, Kern DE, Kolodner K, Dill L, Schroeder AF, Dechant HK, et al. The battering syndrome: prevalence and clinical characteristics of domestic violence in primary health care internal medicine practices. *Ann Intern Med* 1995;123: 737-46.

COMMENTARY

Domestic Violence: Do We Know How Violence Affects the Health of its Victims?

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The physical, psychological and social consequences of domestic violence (DV) for the victim and her family have been, and probably remain, inadequately investigated and understood. Although DV remains covert in most cases (reports to the police are estimated to represent barely 10% of all cases), our knowledge of the alarming magnitude of this problem is increasing.

Studies in different countries¹⁻⁴ have revealed how serious the consequences of DV can be, and have led international organizations concerned with health care (e.g., WHO, UNO, PHO) to consider it a public health problem of the first order. Many governments have established plans to reduce DV, although this does not mean that they include this de facto problem among their political priorities.

Ensuring the availability of reliable data that reflect the context of each country with regard to the prevalence of DV and its consequences for individuals, families and society may be the best argument in support of calls for a global commitment to face this problem effectively.

Physical consequence

The effects on physical health that earlier studies have documented most clearly are as follows:

- A wide variety of traumatic injuries including open wounds, burns, fractures, bruises, multiple injuries, and injuries can cause permanent sequelae or even death.
- Sexual attacks lead to genitourinary problems such as sexually transmitted diseases, urinary tract infections, pelvic pain and undesired pregnancies.
- Abuse during pregnancy is a health risk for the mother and the child. Violence during this period increases the risk of spontaneous abortion, low birth weight and perinatal death.

In the long term, DV leads to alterations believed to be related with prolonged stress, such as digestive tract disorders (irritable bowel syndrome, loss of appetite, vomiting, etc), headache, backache, abdominal pain, chest pain, bone and muscle pain, and unspecific physical symptoms. More

Key Points

- Many international studies have investigated the short-, medium- and long-term effects of domestic violence on women's health, and have found that victims of domestic violence have more mental health problems and poorer physical health than nonabused women.
- Studies in Spain of the long-term consequences of abuse for women's health are all but nonexistent. The results of the pioneering study published in this issue of *ATENCIÓN PRIMARIA* concur with those of studies from other countries.
- We need to increase our knowledge of how domestic violence affects women's health in Spain, and enhanced research efforts in this direction are advisable.
- There seems to be a need for family physicians to become more deeply involved in the problem of domestic violence so that early detection of situations of abuse and appropriate intervention can minimize its consequences.

recently, DV has been related to the appearance of chronic diseases such as diabetes, cardiovascular problems and somatic symptoms.⁵

Psychological consequences

The repercussions of DV on the victim's mental health have been widely documented in many studies.⁶ Problems related most clearly with DV are posttraumatic stress disorder, anxiety, depression (the indicator related most clearly with abuse), and greater risk of suicide (up to 4-fold as high as in nonabused women). Women who are victims of abuse are also at higher risk for addictive behaviors such as alcohol, illegal drug, and mood-altering drug abuse. They more frequently suffer from insomnia, somatization disorder

ders, sexual dysfunction, and eating behavior disorders (anorexia and bulimia). In addition, victims are more likely to use violence against their own children. Victims themselves consider the psychological consequences to be more serious than physical injuries.

Another important long-term consequence is the transmission from generation to generation of DV, which perpetuates models of behavior that accept violence as an instrument of domination and submission. Children thus learn not only the role of aggressor, but also the role of victim, and are more tolerant of abusive behavior.

Social Consequences

Abused women often experience social isolation. They miss work and lose their jobs more often, and this in turn diminishes household earning capacity and socioeconomic level.

Victims of abuse consume more health care resources, and make more visits to the emergency room, to family and community health care facilities, and to mental health facilities. These facets of DV have also been widely investigated.

In Spain, few studies have been published on the repercussions of DV on mental health. The survey on DV carried out by the *Instituto de la Mujer* (Institute of Women's Affairs) in 2000 was one of the few studies to examine this issue.

These reasons make the study published in this issue by Raya Ortega and colleagues especially timely, being one of the first to appear in Spain that attempts to investigate the impact of DV on women's physical and psychological health. The authors studied a population of women between 18 and 65 years of age who visited primary health care centers.

Of particular note was the high frequency of abuse, which was reported by 31.5% of the population studied. However, the real figure may well be higher as some of the exclusion criteria may have led the actual frequency to be underestimated. The figure reported by Raya Ortega and colleagues is much higher than that reported by the *Instituto de la Mujer* (9.4%), based on a sample of the general population of women of the same ages. However, the figure found by Raya Ortega and colleagues is consistent with the results of other studies done in primary care settings in other European countries (Richardson, 2003; Bradley, 2003). Raya Ortega and colleagues also found that in global terms, abuse was associated with poor mental health and self-perceived health. These authors also note—as other studies have reported—a higher frequency of use of mood-altering drugs and substances, and a higher frequency of chronic diseases.

Although methodological features of the study make it inappropriate to extrapolate these findings to the general

population, it is clear that the findings are of considerable interest. For the first time we now have data on the frequency of abuse from a survey of women seen in primary health care centers. As the authors note in their conclusion, *physical injuries are not the only proof of abuse*. There are other sequelae that are less visible but perhaps much more serious, such as mental health problems or chronic illness secondary to situations of sustained violence. Primary care professionals should be on the alert to detect DV as promptly as possible and thus minimize its consequences. The results of studies such as the one by Raya Ortega and colleagues provide further arguments in support of vigilance.

Moreover, an additional positive outcome of this study in the primary care setting would be the initiation of further research on the consequences of DV. Some of the questions that merit attention in this area are as follows:

- What are the long-term repercussions of DV? Although some studies have appeared, the repercussions remain poorly understood.
- How do psychological problems and chronic diseases arise secondarily to DV?
- How are these problems related to the duration and type of abuse?
- What are the protective mechanisms and resilience factors that allow some victims to recover from abusive experiences without delayed psychological sequelae?
- What repercussions does DV have on the health of other family members? What interventions should be implemented with minor children when intimate partner violence is detected? What middle- and long-term repercussions does DV have on the children? These issues are undoubtedly of considerable interest for health care, and although some studies have investigated them in other countries, they have hardly received attention in Spain.

Perhaps some of these questions will inspire other professionals to initiate further studies in this area, which has been neglected to a large extent by health care professionals in Spain. Further research in this area is necessary, as in the words of F. Bradley,⁷ the author of many studies on DV, research into this problem should be seen as a way to uncover and reframe this hidden stigma; research in itself is beneficial even when it is not accompanied by immediate action. Awareness of the problem is the first step toward a solution.

It is essential that domestic violence come to be understood as a health problem, and we must therefore integrate it into primary care activities, investigate the gaps in our knowledge of the problem, and obtain appropriate training to provide care and carry out research effectively.

References

1. Campbell L. Health consequences of intimate partner violence. *Lancet* 2002;359:1331-6.
2. Coker A, Davis KE, Arias I, Desai S, Sanderson M, Brandt HM, et al. Physical and mental health effects of intimate partner violence for men and women. *Am J Prev Med* 2002;23:260-8.
3. Watts Ch, Zimmerman C. Violence against women: global scope and magnitude. *Lancet* 2002;359:1232-7.
4. Jewkes R. Intimate partner violence: causes and prevention. *Lancet* 2002;359:1423-9.
5. Lown EA, Vega WA. Intimate partner and health: self-assessed health, and somatic symptoms among Mexican American Women. *Psychosom Med* 2001;63:352-60.
6. Gomel MK. Domestic violence—an issue for primary health care professionals. In: Jenkins R, Ustan TB, editors. *Preventing mental illness: mental health promotion in primary care*. Chichester: John Wiley and Sons, 1998; p. 440-55.
7. Bradley F, Smith M, Long J, O'Dowd T. Reported frequency of domestic violence: cross sectional survey of women attending general practice. *BMJ* 2002;324:271-4.