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Violence and depression in a community sample

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Abstract

Aims and objectives: To understand the relation between the experience of violence and sociodemographic and clinical factors, and to determine whether diagnosed depression and the presence of anxiety and stress are related to having experienced workplace and domestic violence in different genders and age groups.

Background: Previous studies indicate that domestic and workplace violence increase the risk of suffering from depression. However, no studies have evaluated these two types of violence in a same cohort.

Design and methods: We designed a descriptive cross-sectional study from 317 individuals randomly selected from the population in Southern Catalonia (Spain). Sociodemographic and Goldberg anxiety-depression questionnaires were administered by telephone survey to 160 men and 157 women in December 2008. The data obtained were analysed by a logistic regression model.

Results: A quarter of the individuals had suffered from violence: 48.29% of them had experienced domestic violence and 32.9% had experienced workplace violence. Nearly half of the individuals with depression had experienced violence. No statistical difference has been observed between domestic and workplace violence regarding diagnosed depression. Women were twice as likely as men to have suffered from violence. People working outside their home and those who claimed to have no social support had a greater risk of suffering from violence. A greater consumption of medication, above all of psychotropic drugs, is associated with experiencing violence and with greater comorbidity. Predictive factors for suffering from depression are being women, having experienced violence, having suffered stress or anxiety, having little or no social support, having overload of task or having no secondary education and no tertiary education.

Conclusions: This study suggests that when considering depression, anxiety and stress, especially in women, we must take into account whether an individual has suffered violence.

Relevance to clinical practice: Identifying violence can help health professionals, managers and researchers improve care and reduce suffering in families and communities.

Keywords: workplace violence; domestic violence; depression; social support; stress; anxiety

What does this paper contribute to the wider global clinical community?

- Experiencing violence is associated with suffering from depression, anxiety and stress, and is particularly common in women.
- Violence is associated with low levels of social support, an overload of tasks, greater consumption of medication, in particular psychotropic drugs, and greater comorbidity.
- The study highlights the opportunity for alleviating depression via preventative intervention in violence in clinical and social care settings.

Introduction

In 2006, the World Health Organization (WHO) recognized violence as a complex public health problem because of the involvement of biological, social, economic, political, family and other factors. Violence is associated with suffering from depression (Devries et al. 2013, Ford & Browning 2014, Fonseca-Machado et al. 2015, Hammond et al. 2010, Loke et al. 2012, Madsen et al. 2011), including its manifestation as attempted suicide (Devries et al. 2013, Antypa et al. 2016, Cerel et al. 2016). According to several studies, violence is also associated with psychiatric conditions such as mixed anxiety–major-depressive, adjustment, anxiety and post-traumatic stress disorders (Fornés et al. 2012, Bjørkelo 2013, Edwards et al.

2015). However, these conditions are often difficult to identify; several studies have highlighted the high risk of misdiagnosis of delusional disorder and paranoid personality disorder among victims of workplace bullying or harassment (Hammond et al. 2010, Martínez-Hernández & Medeiros-Ferreira 2010, Madsen et al. 2011). In these conditions, nurses contribution is very important. They should be aware of this situation so that they can monitor and support these individuals appropriately, since their own lack of awareness of the nature of their abuse, their lack of trust of professionals and fear of their partner mean that men usually do not seek professional help.

The study is part of a broader study of depression, and aims to determine whether people who have experienced domestic or workplace violence are at greater risk of suffering from depression than those who have not.

Background

There is a high risk of suffering from depression in the contexts of domestic violence (Vos et al. 2006, Okuda et al. 2011, Chuang et al. 2012, Loke et al. 2012, Devries et al. 2013, Bradbury-Jones et al. 2014, Fonseca-Machado et al. 2015) and violence in the workplace (Hammond et al. 2010, Martínez-Hernández & Medeiros-Ferreira 2010, Madsen et al. 2011, Emdad et al. 2013). Women are subject to domestic and workplace violence, although the influence of the latter is greater for men (Montesó 2009). Mobbing, understood to be the use of force, threat, or coercion to abuse, intimidate, or aggressively dominate another person, can promote a lack of autonomy and loss of control in the person suffering it, possibly causing depression. Harassment in the workplace is an indicator of patriarchal conditions (Leskinen et al. 2015, Sojo et al. 2015). Domestic abuse of women has been associated with an increase in chronic diseases such as hypertension, diabetes, chronic pain, gastrointestinal disorders like irritable bowel syndrome, somatic complaints and fibromyalgia (Plazaola-

Castaño & Ruiz-Pérez 2004, Vos et al. 2006). With respect to mental health, abuse creates symptoms and clinical profiles ranging from anxiety, insomnia and low self-esteem to clinical depression and post-traumatic stress disorder (Plazaola-Castaño & Ruiz-Pérez 2004, Emdad et al. 2013, Edwards et al. 2015). Suffering violence at work is associated with an increased risk of mental health problems and with the consumption of antidepressants and anxiolytics (Madsen et al. 2011).

Methods

Design

For this cross-sectional analytical study, a sample of 317 people of different ages was randomly selected from a population in a community. During telephone interviews, all the participants completed a sociodemographic questionnaire and undertook the Goldberg test (Goldberg et al. 1988). The latter separately evaluates anxiety and depression on two subscales. Both consist of nine questions, although the latter five are only asked if the first four questions have been answered. It is a simple scale with few items and has good sensitivity (83.1%), specificity (81.2%) and a positive predictive value (PPV) of 95.3%.

To determine whether there had been any experience of physical, psychological or sexual violence (separately or in any combination), questions were asked about the perception of these at work and in the domestic context. Interviewees were told that the research was not only concerned with whether they had suffered physical abuse, but also psychological abuse, which is defined as being shouted at or talked to in a derogatory or threatening tone, being controlled and being subjected to prohibitions, having one's money controlled, not being valued or recognized for one's work, receiving constant refusals and, above all, receiving continuous blame, or being blackmailed financially or emotionally (Alberdi & Rojas 2005, Kane & Bornstein 2016, Sojo et al. 2015, Sommerfeld & Shechory 2015)

Data Collection

Data were collected in December 2008. Telephone surveys using Goldberg's questionnaire were conducted, using a systematic sampling where non-responses were substituted so that we obtained finally data for a total of 317 participants. Goldberg Scale has been already validated in Spain (Montón et al. 1993). The test consists of two subscales - one for detecting anxiety and one for detecting depression. Both scales consist of 9 questions, but the last 5 are only formulated if the first 4 compulsory questions are answered. It is a simple scale with good sensitivity (83.1%), specificity (81.2%) and a positive-predictive value (PPV) of 95.3%. Depression and anxiety subscales were scored as previously described (Goldberg et al. 1988). The sociodemographic questionnaire sought information about age, gender, marital status, presence of children, level of education, working outside the home, level of perceived social support, medication intake, smoking habit and alcohol consumption. It also sought to identify the locations in which the violence took place (the home or the workplace). This study is part of a broader investigation into depression, which was presented as a doctoral thesis in the Department of Sociology III in the UNED (National University of Distance Education), Madrid (Montesó 2009).

Ethical considerations

The study was carried out according to the ethical principles for medical research involving human subjects of the Declaration of Helsinki. We sought permission from the research committee in the region in which we conducted the research. Potential participants were informed of the purpose of the study and that their participation was voluntary and confidential before giving their consent.

Data analysis

SPSS[®] version 17 was used for statistical analyses. Continuous variables were expressed as the arithmetic mean and standard deviation, group differences being analysed using Student's t test for independent samples. Categorical variables were summarised as absolute numbers and percentages, comparisons being made using the χ^2 test or Fisher's exact test. We used logistic regression to determine best-fit models describing the relationship of depression (dependent variable) with the independent variables. Relative risk was estimated as odds ratios (ORs) with associated 95% confidence intervals. For all tests, values of $P < 0.05$ were considered to be statistically significant.

Results

The sociodemographic data for the study sample are summarized in Table 1. The gender distribution of the randomly selected 317 patients of the study consisted of 157 women (49.5%) and 160 men (50.5%). The great majority of the individuals are married or with partner, have only primary school education, work outside and have social support. Globally, almost twice as many women as men suffered from violence ($p=0.003$). Although no significant difference has been observed, individuals who suffered from violence are age between 46 and 65 years (32.9%) and younger than 25 years (31.5%). Individuals who had not experienced violence thought they had greater social support ($p<0.0001$) and felt less burdened by having to combine tasks inside and outside the home than those who had experienced violence (overloaded; $p=0.010$). Respondents who said that they had experienced violence suffered from a higher frequency of acute and chronic diseases than those who had not experienced it ($p=0.044$). However, they did not take significantly more medication to treat the range of mental disorders or other diseases ($p=0.027$). Twenty-six point eight percent of those interviewed said they had experienced violence: 48.29% of them (41

individuals) had experienced domestic violence and only 32.9% (28 individuals) had experienced workplace violence.

The relationships between violence, mental health parameters and the gender of participants are presented in Table 2. The percentage of those suffering from violence was higher among people diagnosed with depression, of whom almost half were affected. Nearly half of the people who suffered from anxiety and stress suffered from gender-based violence. Violence was significantly associated with depression independently of gender ($p < 0.0001$ for men and women). Almost half (48.8%) of the women who suffered from violence also had depression, while the corresponding figure in men was only 32.8%. There was a similar pattern for anxiety and stress. While 51.4% and 51.7% of women with depression presented anxiety and stress, only 33.3% and 30.8% of men with depression suffered these, respectively.

Regarding the relationship between domestic and workplace violence with diagnosed depression, no statistical differences has been observed. Effectively, 92.7% of individuals who experienced domestic violence presented diagnosed depression and 82.1% of individuals who experienced workplace violence presented diagnosed depression.

Relationships between depression and each of the variables were examined in the logistic regression model. The results indicate that only the following predictors were associated with an increased risk of depression: being female (OR=1.90; 95% CI=1.03-3.50; $p=0.038$), experiencing violence (OR=7.93; 95% CI=3.34-18.86; $p < 0.0001$), suffering stress (OR=4.0; 95% CI=1.94-8.47; $p < 0.0001$), suffering anxiety (OR=2.24; 95% CI=1.04-4.78; $p=0.038$), having little or no social support (OR=2.48; 95% CI=1.02-5.99; $p=0.043$), having an overload of tasks (OR=5.84; 95% CI=2.82-12.04; $p < 0.0001$), no secondary education (OR=5.51; 95% CI=1.65-18.44; $p=0.015$) and no tertiary education (OR=6.06; 95%; CI=1.71-21.44; $p=0.005$).

Discussion

Our results indicate individuals with an increased risk of suffering depression are those who are women, have experienced violence in general, have suffered stress or anxiety, have little or no social support, have overload of task or have no secondary education and no tertiary education. Previous studies indicate that violence alters an individual's state of health and quality of life. It causes depression, anxiety and post-traumatic stress disorders (Humphreys & Ravi 2003, Lambert et al. 2013, Maercker & Hecker 2016). On the other hand depression can be underdiagnosed or misdiagnosed because people can not acknowledge their depressive illness or because they not suffer it at this moment, but this does not mean that they have not suffered from it at any time (Montesó et al 2014, Redei & Mehta 2015).

Regarding the relation of depression with domestic violence (Vos et al. 2006, Devries et al. 2013) or with workplace violence (Wieclaw et al. 2006, Emdad *et al.* 2013, da Silva et al. 2015), all the published studies have evaluated them separately. On the contrary, our study evaluates the depression and the two type of violence. With our cohort of individuals, no difference has been observed between domestic and workplace violence (48.29% versus 32.9%). These results are really difficult to interpret due to the size of our samples but also due to the fact that previous studies evaluate domestic and workplace violence separately.

Women who experienced violence were more likely to experience depression than men, perhaps because they have different methods of coping and ways of identifying and channelling their emotions. For social and cultural reasons, men are more reluctant to identify or report depression (Möller-Leimkühler 2008, Montesó-Curto et al. 2014). Social support was lowest among the people suffering from violence. Women usually need informal support from family and friends to seek professional help (Prosman et al. 2014). However, although the importance of home environment is recognised, workplace violence affected also men and women. The conditions that can conceal violence in the workplace need to be identified

since our finding indicated that more people who worked outside the home had experienced violence. The motivation behind changing should be considered further employment, since this has been attributed to harassment and/or violence at work in a large sample of nurses (Deery et al. 2011, Armmer & Ball, 2015). Similar to the findings of different previous studies (Fornés et al. 2011, Heponiemi et al. 2014), although the study did not set out to collect this information, we became aware of a desire to leave the profession and a low level of participation in decision-making among participants in this study. Kamimura et al. 2013 noted that encouraging abused women to seek social support helps improve their physical and mental health. They also highlighted the importance of the provision of or referral to mental health services for women who experience intimate partner violence. Implementing policies to reduce workplace discrimination in companies could improve psychosocial functioning of employees (Hammond et al. 2010). So nurses should be aware of this situation. They can monitor and support these individuals appropriately, since their own lack of awareness of the nature of their abuse, their lack of trust of professionals and fear of their partner mean that men usually do not seek professional help.

Limitations

Our study has some limitations. First, we assessed only 317 participants, so the small sample size limits the statistical power available to demonstrate significance of certain effect sizes. Moreover, the telephone interviews may also be limited in terms of the accuracy of the recorded data.

Conclusion

A quarter of the sample in this study had suffered from violence. Nearly half of those with depression had experienced violence. Women were twice as likely to have suffered from

violence as men, but when they identified it in their lives, men and women were both at greater risk of depression. People working outside their home and those who claimed to have no social support had a greater risk of suffering from violence.

Relevance to clinical practice

Nevertheless, the study advances our understanding and knowledge of depression, which may enable the people suffering from it and the staff caring for them to manage it from a more inclusive perspective. Recognising the importance of identifying workplace and domestic violence in individuals suffering from depression is critical to reducing the suffering of these people and their families. When a person presents with depression, all possible causal factors, including domestic and workplace violence, should be considered together.

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Contributions

Study design: PM, CA; data collection and data analysis: PM, ML, CA, GG and manuscript preparation: PM, LC, CF

Conflict of interest

The authors declare that they have no conflicts of interest.

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Table 1. Relationship between experience of violence and participants' sociodemographic characteristics

	N (%) ^a	No violence (%) ^b	Violence (%) ^b	P ^c
Age (years)				
≤25	48 (15.1)	33 (68.8)	15 (31.3)	0.200
26-45	126 (39.7)	93 (73.8)	33 (26.2)	
46-65	76 (24.0)	51 (67.1)	25 (32.9)	
>65	67 (21.1)	55 (82.1)	12 (17.9)	
Gender				
Male	160 (50.5)	129 (80.6)	31 (19.4)	0.003
Female	157 (49.5)	103 (65.6)	54 (34.4)	
Marital status				
Married/with partner	199 (62.8)	153 (76.9)	46 (23.1)	0.126
Single	83 (26.2)	57 (68.7)	26 (31.3)	
Divorced/widowed	35 (11.0)	22 (62.9)	13 (37.1)	
Have children				
Yes	197 (62.1)	144 (73.1)	53 (26.9)	0.963
No	120 (37.9)	88 (73.3)	32 (26.7)	
Educational level				
Primary school	187 (29.0)	141 (75.4)	46 (24.6)	0.167
Secondary school	95 (30.0)	70 (73.7)	25 (26.3)	
University	35 (11.0)	21 (60.0)	14 (40.0)	
Work outside				
Yes	206 (65.0)	144 (69.9)	62 (30.1)	0.072
No	111 (35.0)	88 (79.3)	23 (20.7)	
Social support				
Yes	260 (82.0)	202 (77.7)	58 (22.3)	<0.0001
No	57 (18.0)	30 (52.6)	27 (47.4)	
Medication				
No	156 (49.2)	117 (75.0)	39 (25.0)	0.027
Mental disorders	53 (16.7)	31 (58.5)	22 (41.5)	
No mental disorders	108 (34.1)	84 (77.8)	24 (22.2)	
Overloaded				
Yes	106 (33.4)	68 (64.2)	38 (35.8)	0.010
No	211 (66.6)	164 (77.7)	44 (22.3)	
Smoker				
Yes	84 (26.5)	61 (72.6)	23 (27.4)	0.891
No	233 (73.5)	171 (73.4)	62 (26.6)	
Alcohol				
Yes	62 (19.6)	40 (64.5)	22 (35.5)	0.086
No	255 (80.4)	192 (75.3)	63 (24.7)	
Comorbidity				
Yes	195 (61.5)	135 (69.2)	60 (30.8)	0.044
No	122 (38.5)	97 (79.5)	25 (20.5)	

^aTotal percentage

^bPercentage for each sociodemographic parameter

^cChi-square statistic comparing frequencies of no violence versus violence.

Table 2. Relationship between experience of violence, mental health characteristics and gender of participants

	No violence N (%)	Violence N (%)	P ^a
Depression			
Global			
Yes (n=148)	86 (58.1)	62 (41.9)	<0.0001
No (n=169)	146 (86.4)	23 (13.6)	
Gender			
Men			
Yes (n=64)	43 (67.2)	21 (32.8)	<0.0001
No (n=96)	86 (89.6)	10 (10.4)	
Women			
Yes (n=84)	43 (51.2)	41 (48.8)	<0.0001
No (n=73)	60 (82.2)	13 (17.8)	
Anxiety			
Global			
Yes (n=109)	60 (55.0)	49 (45.0)	<0.0001
No (n=208)	172 (82.7)	36 (17.3)	
Gender			
Men			
Yes (n=39)	26 (66.7)	13 (33.3)	0.011
No (n=121)	103 (85.1)	18 (14.9)	
Women			
Yes (n=70)	34 (48.6)	36 (51.4)	<0.0001
No (n=87)	69 (79.3)	18 (20.7)	
Stress			
Global			
Yes (n=110)	64 (58.2)	46 (41.8)	<0.0001
No (n=207)	168 (81.2)	39 (18.8)	
Gender			
Men			
Yes (n=52)	36 (69.2)	16 (30.8)	0.011
No (n=108)	93 (86.1)	15 (13.9)	

Women

Yes (n=58)	28 (48.3)	30 (51.7)	<0.0001
No (n=99)	75 (75.8)	24 (24.2)	

^a χ^2 test or Fisher's exact test, as appropriate

Accepted Article