Physical and social predictors of partner abuse in women attending general practice: a cross-sectional study

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ABSTRACT

Background

Intimate partner abuse causes significant morbidity and mortality in women attending general practice. Currently there is insufficient evidence for screening all women but case finding of women at risk of intimate partner abuse is recommended.

Aim

To develop physical symptoms and sociodemographic indicators for partner abuse for women attending general practice.

Design of study

Descriptive, cross-sectional survey.

Setting

Thirty general practices in Victoria, Australia.

Method

A total of 1257 consecutive women attending general practice (response rate 77%) were screened for a history of partner abuse using a self-report questionnaire. The presence of partner abuse in the last 12 months was measured by the Composite Abuse Scale.

Results

Women who reported more than two physical symptoms in the last month were more likely to report experiencing partner abuse in the last 12 months (3–5 symptoms, odds ratio [OR] = 2.32, 95% confidence interval [CI] = 1.55 to 3.48; 6–15 symptoms OR = 3.47, 95% CI = 2.21 to 5.47). Many individual physical symptoms were associated with partner abuse in the bivariable analysis. Multivariable analysis showed clinical indicators of partner abuse (excluding the strong association with depression) which included sociodemographic features (age, separated/divorced, low education, low income, no private insurance) and physical symptoms (diarrhoea, tiredness, chest pain).

Conclusion

Clinicians should be alert for current and past partner abuse in women who are separated/divorced, on low incomes, have poor education, or have multiple physical symptoms in the past month. Future research questions include what interventions would work for women who have been or are being abused once identified.

Keywords

domestic violence; primary care; risk factors.

INTRODUCTION

Intimate partner violence is a significant public health issue, with prevalence data similar to those for chronic diseases such as diabetes and asthma.[1] Recent general practice studies in Australia, US, UK, and Ireland have found high lifetime physical abuse rates ranging from 23.3% to 41.0% of women, and 12-month rates from around 5% to 17%.[2] GPs are in an ideal position to identify intimate partner violence but there is insufficient evidence for screening all women,[3] and a minority of women would not want to be asked about violence in the home.[4] Can predictive indicators of abuse be developed that would assist clinicians in determining who they should ask?[5]

Associations of mental health issues with intimate partner violence have been explored in detail.[6,7] In an earlier study the present authors found that the prevalence of abuse was high and that there was a strong association with depression even after adjustment was made for social indicators associated with depression.[8] Limited data are available from the primary care setting about what other clinical indicators there are for partner abuse.[9–12] McCauley *et al* previously proposed a model of risk factors for abuse consisting of sociodemographic features (<35 years, separated/divorced, lack of private health insurance), psychosocial variables (low score on

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mental health dimension SF-36, alcohol abuse, suicide), and physical symptoms (for example, injuries, diarrhoea, vaginal discharge).[10]

This article expands on the authors' previous work on depression and abuse[8] to explore the association of clinical indicators for partner abuse in women attending their GP. Specifically, it explores physical symptoms and sociodemographic factors as predictors of partner abuse for women attending general practice.

How this fits in

There are limited data from primary care about physical symptoms and their association with intimate partner violence. The majority of studies concentrate on physical violence and use data from a small number of general practices. This study of 30 Australian general practices shows that multiple physical symptoms, psychosocial symptoms, and sociodemographic characteristics are predictors of intimate partner violence for women attending general practice. Researchers should measure partner abuse in medically unexplained physical symptom studies. Doctors should look out for partner abuse in women with multiple physical symptoms.

METHOD

The methods, ethical approval, and sample size of the current study have been described previously.[8] In brief, GPs who had previously volunteered for a women's health educational programme were stratified into non-urban and metropolitan regions, and selected at random until 30 GPs were recruited. From August to December 2000, a project worker in the waiting room invited all women (16–50 years) presenting for themselves, or with relatives, to complete a questionnaire. Women were excluded if they did not have the mental or physical capacity to answer the questionnaire, could not read or write English, or were attending closely with a male partner.

The questionnaire included sociodemographic data, Composite Abuse Scale (CAS),[13] Beck Depression Inventory (BDI)[8] or Edinburgh Postnatal Depression Scale (EPDS, if postnatal),[14] SF-36,[15] self-report of depression and anxiety, and a list of common physical symptoms presenting in general practice, based on previous research in Australian general practices.[16] Three physical symptoms were also included (injuries, diarrhoea, and vaginal discharge) from a similar previous study in four US primary care clinics.[10] The main outcome of whether women were probably abused in the past 12 months was measured using the CAS, a 30-item, well-validated measure for primary care.

Women who were not in an adult intimate relationship in the last 12 months were excluded from the analysis. Logistic regression, using the survey commands in Stata Statistical software (version 9) to adjust for the clustering effect, was used to examine the association between women identified as probably abused and not abused, with BDI or EPDS scores, self-report of depression, anxiety and physical symptoms, patient characteristics, and SF-36 composite scores for physical and mental health. Stepwise logistic regression was used to fit the model of risk factors for abuse using the 17 self-reported physical symptoms in the past 4 weeks and sociodemographic factors. Measures of probable depression (BDI or EPDS scores) and self-reported depression and anxiety symptoms were not included in the final multivariable model, as the research aimed to specifically examine the physical symptoms that are associated with probable abuse. However, to investigate the relative importance of psychosocial and physical symptoms, the effect on the final model of including self-reported depression and anxiety symptoms was examined. Risk factors were included in the model if they exhibited a moderate level of association ($P<0.1$).

Table 1. Association of partner abuse with sociodemographic characteristics[a] and mental health factors for women attending general practice (n = 942).[b]

	Abused (n = 163)	Not abused (n = 779)		
	n (%)	n (%)	OR	95% CI
Sociodemographic characteristics				
Age 35 years (n = 938)	95 (58.6)	349 (45.0)	1.73	1.18 to 2.54
Education level: left school before year 10 (n = 941)	21 (13.0)	52 (6.7)	2.08	1.39 to 3.11
Marital status: separated, widowed or divorced	14 (8.6)	22 (2.8)	3.23	1.75 to 5.97
Income source:[c] pension or benefit (n = 940)	25 (15.4)	32 (4.1)	4.25	2.21 to 8.18
No private health insurance (n = 933)	82 (51.3)	237 (30.7)	2.38	1.61 to 3.52
Depression factors				
Probable depression in past week[d] (n = 917)	52 (32.7)	73 (9.6)	4.56	3.16 to 6.54
Suicidal thoughts (n = 919)	8 (5.0)	5 (0.7)	7.94	2.58 to 24.40
SF-36 composite scale				
	Abused (n = 150)	Not abused (n = 716)		
	Mean (SD)	Mean (SD)	Diff	95% CI
Physical health	49.20 (9.86)	49.65 (10.51)	–0.45	–2.3 to 1.39
Mental health	36.40 (8.71)	46.03 (10.93)	–9.6	–11.2 to –8.0

[a]Small numbers (<10) of Aboriginal and Torres Straight islander, and people with a non-English-speaking background precluded their inclusion in analysis. [b]Nine hundred and eighty-eight women were in a current intimate relationship of whom 46 had not completed the Composite Abuse Scale. [c]Only one income measure was included, but household income less AU$500 per week and unemployed seeking work had similar associations with abuse. [d]Probable depression measured as Edinburgh Postnatal Depression Scale total >12 or Beck Depression Inventory total >16. OR = odds ratio calculated using logistic regression, confidence intervals adjusted for clustering effect. SD = standard deviation. Diff = difference in means calculated using linear regression, confidence intervals adjusted for clustering effect.

Table 2. Association of current partner abuse with number and type of common physical symptoms in the past 4 weeks reported by women attending general practice (*n* = 925).

Self-reported symptoms in the past 4 weeks	Abused (*n* = 158) *n* (%)	Not abused (*n* = 767) *n* (%)	OR	95% CI
Total number of self reported physical symptoms (out of 17)[a]				
0–2	48 (30.4)	408 (53.2)1.0		
3–5	74 (46.8)	271 (35.3)	2.32	1.55 to 3.48
6–15	36 (22.8)	88 (11.5)	3.48	2.21 to 5.47
Self-reported symptoms (not mutually exclusive)				
Depression	72 (45.6)	144 (18.8)	3.62	2.64 to 4.97
Chest pain	17 (10.8)	27 (3.5)	3.30	1.78 to 6.15
Anxiety	57 (36.1)	131 (17.1)	2.74	1.88 to 3.98
Fever	21 (13.3)	45 (5.9)	2.46	1.27 to 4.76
Broken bones, sprains, or serious cuts	7 (4.4)	16 (2.1)	2.18	0.76 to 6.20
Tiredness	122 (77.2)	489 (63.8)	1.93	1.29 to 2.87
Chronic headaches	39 (24.7)	113 (14.7)	1.90	1.21 to 2.98
Vaginal discharge	25 (15.8)	71 (9.3)	1.84	1.14 to 2.97
Diarrhoea	32 (20.3)	95 (12.4)	1.80	1.18 to 2.74
Chronic abdominal pains	18 (11.4)	53 (6.9)	1.73	1.00 to 3.01
Throat problems	39 (24.7)	123 (16.0)	1.72	1.17 to 2.51
Nasal congestion/sneeze	54 (34.2)	179 (23.3)	1.71	1.17 to 2.49
Difficulty sleeping	83 (52.5)	308 (40.2)	1.65	1.15 to 2.36
Back problems	55 (34.8)	194 (25.3)	1.58	1.00 to 2.50
Dizziness	31 (19.6)	104 (13.6)	1.56	1.01 to 2.40
Cough	45 (28.5)	164 (21.4)	1.46	0.96 to 2.23
Rash	14 (8.9)	51 (6.6)	1.36	0.81 to 2.30
Ear pain	11 (7.0)	61 (8.0)	0.87	0.46 to 1.62
High blood pressure	5 (3.2)	39 (5.1)	0.61	0.25 to 1.47

[a]*Total number excludes self-reported symptoms of depression and anxiety. OR = odds ratio calculated using logistic regression, confidence intervals adjusted for clustering effect.*

RESULTS

The representativeness of the participating GPs and the women has been described in detail previously.[8] In summary, the GPs were more likely to be female, work part time, and to have graduated more recently compared with Australian population data. The participating women were more likely to be older and English speaking, and there was lower representation of women of low-income households, limited training and in unskilled occupations compared with Australian population data.

Table 3. Risk factor model of partner abuse for women attending general practice (excludes mental health issues) (*n* = 911).

Risk factor	OR	95% CI
Sociodemographic factors		
Marital status: separated, widowed or divorced	2.62	1.17 to 5.80
Age 35 years	1.65	1.03 to 2.63
Income source: pension or benefit	2.58	1.25 to 5.32
No private health insurance	1.66	1.08 to 2.54
Education level: left school before year 10	1.98	1.14 to3.44
Self-reported physical symptoms in past 4 weeks		
Diarrhoea	1.65	1.06 to 2.57
Tiredness	1.98	1.26 to 3.09
Chest pain	2.71	1.37 to 5.34

Number of physical symptoms, measures of depression (using BDI and EPDS), and self-reported depression and anxiety were not included in the multivariable model as the study aimed to examine the particular physical symptoms that are associated with probable abuse. OR = odds ratio.

Associations of partner abuse

Women who scored in the 'probably-abused' range were more likely to be young (<35 years), divorced or separated, have less education, and be on a pension or benefit (Table 1). Women who were currently abused were much more likely to be probably depressed, to have experienced suicidal thoughts, and to score low on the mental health scale of the SF-36 (Table 1).

Women who reported a greater number of physical symptoms were more likely to report experiencing partner abuse in the last 12 months (Table 2). This association remained significant after adjusting for the above sociodemographic variables (3–5 symptoms, odds ratio [OR] = 2.24, 95% confidence interval [CI] = 1.48 to 3.39; 6–15 symptoms OR = 3.28, 95% CI = 2.02 to 5.34). Many individual physical symptoms were associated with partner abuse in the bivariable analysis (Table 2).

Risk factor model

Multivariable analysis showed that the psychological variables (probable depression BDI or EPDS, SF-36 mental health score) had the strongest association with abuse.[8] Excluding the psychological variables, a risk factor model of sociodemographic and physical symptom clinical indicators of partner abuse (Table 3) included sociodemographic features (young age, separated/divorced, low education, low income, no private insurance), and physical symptoms (diarrhoea, tiredness, and chest pain). When the self-reported symptoms of depression and anxiety were both included in the multivariable model, chest pain was the only physical symptom that remained, while all sociodemographic variables remained significant. When self-reported depression symptoms or the SF-36 mental health score were included in multivariable regression analysis, the symptom of tiredness was no longer significant. If the self-reported symptom of anxiety was added, then the physical symptom of diarrhoea was no longer significant. These findings highlight the nature of the physical symptoms and their association with depression and anxiety symptoms.

DISCUSSION

Summary of main findings

There are limited data from primary care looking at the association between risk factors and intimate partner violence and abuse.[9–12] The current authors' previous work showed a strong association between depression and partner abuse existing even after adjustment was made for social indicators associated with depression.[8] Mental health issues are the strongest indicator for clinicians of an association with partner abuse for

women attending general practice.[6,7] However, in this study, multiple physical symptoms were also strongly associated with intimate partner abuse (in particular, tiredness, diarrhoea, and chest pain). Further, these particular symptoms also have an association with depression and anxiety symptoms. In addition, partner abuse is associated with women who are young, separated or divorced, who have no private health insurance, or low education or income.

Strengths and limitations of the study

Limitations of this study include its cross-sectional nature, precluding causal inference, and the use of self-report to measure outcomes. The strength of the study is the large variety of general practices from which the sample was derived, and the multidimensional nature of the measure of abuse used.

Comparison with existing literature

It is clear from this study and others that a combination of sociodemographic features, mental health issues, and an increasing number of common psychosocial physical symptoms should alert clinicians to the possibility of partner abuse.[9–12] It is unlikely that the specific physical symptoms found in this model or that of McCauley *et al*[9,10] are the only important symptoms, rather they represent the types of psychosocial presentations that are common when women feel stressed. Further, the relationship between medically unexplained symptoms, chronic pain,[17] depression, and intimate partner violence is beginning to be explored.[18]

Implications for future research and clinical practice

Clinicians treating women presenting with multiple psychosocial physical symptoms should consider whether to sensitively inquire about a history of current or past abuse, as this is what abused women say they want of their health professionals.[19,20] There is insufficient evidence to promote screening of all women;[21] however, recent evidence has emerged that training can increase active questioning about partner abuse,[22] and there are several international screening trials underway.

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Ethical approval

Ethical approval was given by the University of Melbourne (000113)

Competing interests

The authors have stated that there are none

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