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The hidden figure: sexual intimate partner violence among Pakistani women

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Background: The objectives of the present study were to determine the magnitude and factors associated with sexual intimate partner violence (SIPV) in women presenting to tertiary-care hospitals of Karachi, Pakistan. **Methods:** Five hundred women who presented to four tertiary-care hospitals to deliver were interviewed from September to December 2005. SIPV was assessed by using questions on sexual abuse in WHO Domestic Violence Module designed to determine intimate partner violence. Multiple logistic regression analysis was applied to determine factors associated with SIPV. **Results:** Twenty-one percent of women reported experiencing sexual violence in their married life. Gravida with five or more pregnancies [adjusted odds ratio (AOR) = 2.78; 95% confidence interval (CI) 1.12–6.96], index pregnancy as unwanted (AOR = 2.64; CI 1.16–6.02) and conflict with in-laws (AOR 1.9 CI 1.14–3.16) were independently associated with sexual abuse. Women who had social support were less likely to be abused by their intimate partners (AOR 0.76; CI 0.58–0.98). **Conclusion:** One in five women reported spousal sexual abuse in their married life. Women having more than five children, unwanted pregnancies or reporting differences with in-laws are more likely to be subjected to such abuse. Social support protects women from sexual abuse by intimate partner.

Keywords: sexual intimate partner violence, developing country, risk factors.

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Introduction

 \mathbf{S} exual intimate partner violence (SIPV) has generally been a neglected area of research in most parts of the world, yet evidence suggests that it is a public health problem of substantial magnitude, with ~15–71% of women experiencing such abuse worldwide at some point in their lives.¹

Sexual violence is driven by many factors within a range of social, cultural and economic contexts.² Several studies conducted in high-income countries have attempted to identify risk factors for sexual violence by intimate partner such as being young,^{3,4} partner or the victim consuming alcohol or drugs,^{5,6} partner forcing sexual intercourse without condom or having fathered three or more children.⁷ A substantial proportion of women experiencing physical violence also experience sexual abuse.⁸

Martin projected two frameworks of wife abuse in a developing country using India as an example and proposed 'stress-related factors' and 'private nature of the modern family' to be predictive of wife abuse. According to the former, highly stressed families are more prone than less stressed families to all type of family violence, including wife abuse. She quantified these stress-related factors in terms of socio-demographic variables including low level of education, which may impede earning potential; living in poverty; having multiple children and being young and inexperienced when entering into a marriage. In the latter, she argued that the process of development and urbanization has resulted in the shift of family structure from extended to nuclear, which are less susceptible to social control and therefore are potentially at a greater risk of wife abuse.⁹

Patriarchal values are embedded in Pakistani society. Traditionally, violence within family is considered as a private matter in which outsiders including government authorities should not intervene. Also, sexual abuse within marriage is not considered as a legal offence under the Pakistani law.¹⁰ Although several reports on domestic violence appear in press regularly, only few published researches have focussed on sexual wife abuse in Pakistan,^{11–13} and none have explicitly documented the specific type of behaviour that occur during abusive episodes and factors which increase women vulnerability to such behaviour. In this article, we aim to report the occurrence of these specific behaviours of sexual abuse in marital life and also examine the risk factors as proposed by Martin, with reference to life-time sexual abuse among married women presenting to tertiary-care hospitals of Karachi, Pakistan.

Methods

Study population

This study was conducted during the months of September– December 2005 in the obstetric wards of four tertiary-care hospitals of Karachi, which provide care to low income groups. Karachi is the largest metropolitan city of the Sind province in Pakistan. It has a population of about 14 million. The city is well served by various health services available in the public and private sectors. Five-hundred women between the ages of 15 and 49 years, who presented to any of these four tertiary-care hospitals to deliver, and who had been married and residing with their husband in Karachi for at least past 1 year were eligible and successfully interviewed.

Ethical approval of the study was obtained from Aga Khan University Ethical Review Committee. Permissions were also granted from health authorities of these hospitals to conduct this study. The women were approached at least 12 h after the delivery, after the visiting hours and in privacy, in order to allow them to settle after their exhaustive experience of delivery. This time was carefully chosen as it was considered as the only period when the women could be approached in privacy and they could express their feelings confidently. The pre-tested structured questionnaire was administered

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to the eligible women after obtaining informed consent. Interviews were conducted by two trained female interviewers who were instructed not to disclose any information obtained during interview with any of the hospital staff or relatives of the respondents. In the end of the interview, all women were given details of two social organizations that provide assistance to women subjected to abuse. These organizations were informed about the purpose of the study and gave consent to take care of these women.

Study variables

Husband perpetration of IPV was assessed through validated WHO domestic violence module.¹⁴ This instrument has three components on emotional, physical and sexual abuse, respectively. The results of analysis on emotional and physical abuse have been published elsewhere.¹⁵ For current analysis, items on sexual abuse by intimate partner from the module were used as outcome measure, which was defined as being (i) physically forced to have sexual intercourse against her will; (ii) having sexual intercourse because she was afraid of what her partner might do if she did not; (iii) and being forced to do something sexual that she thought was degrading/ humiliating. The information was obtained for life-time experience for the time living with current intimate partner.

Physical abuse was defined as the intentional use of physical force with the potential for causing injury, harm or death. It is assessed by six specific life-time events: slapping (with open hand), shaking, kicking and beating with fist or any object, strangulation, burning, threats with knife or gun.¹⁶

Emotional abuse was defined as any act or omission that damages the self-esteem, identity or development of the individual. It involves humiliation, forced isolation from family and friends, threatening to harm someone she cares about, repeated yelling and degradation, inducing fear through intimidating words or gesture.¹⁶

Social support was measured using the Multidimensional Scale of Perceived Social Support (MSPSS).^{17,18} This 12-item scale measures the subjective assessment of social support adequacy across three specific sources: family, friends and significant others. Each item is scored on a seven-point Likert scale ranging from 1 to 7 with 'very strongly disagree' as 1 to 'very strongly agree' as 7. Thus, the lesser the score, the more social support was reported by the women.

Current ages of women were categorized as <25, 25–34 and \geq 35 years; Age at marriage was categorized as <18; 18–22; >22 years; Age difference was categorized as spouse younger or same age; spouse 1–9 years older; spouse \geq 10 years older.

Education level was categorized as post-secondary (above eighth grade of education), primary to secondary (fifth to eighth grade of education) and below primary (less than fifth grade of formal education). Information on employment of intimate partner was categorized into blue collar, white collar and jobless. A blue-collar worker was defined as a working class employee who performed manual, unskilled or semiskilled labour such as in a factory or maintenance 'trades', in contrast to a white collar who did non-manual work generally at a desk. Jobless was defined as a person not earning money by any means for the last 6 months. Women's employment status was categorized as women who reported working for money and women who did not work for money at all. Women were asked about their relationship with the in-laws and categorized as conflicts with in-laws; yes and no. Family structure was categorized as 'joint family', if living with any of their in-laws and sharing common kitchen and 'nuclear family' if living separately.

Total number of pregnancies reported by the women were categorized as primigravida as women who were pregnant for the first time, multigravida as women who were pregnant from two to four times and grand multigravida as those women who were pregnant for five or more times. History of abortion and still-birth were dichotomized into history of adverse pregnancy outcome; yes and no.

Information was also taken about whether the current pregnancy was wanted and lack of dowry at the time of marriage and categorized as yes or no.

Statistical methods

Prevalence estimates were calculated to reflect the relative frequency of sexual abuse as well as physical and emotional abuse. To investigate the association between risk factors and sexual abuse bivariate and multivariable logistic regression analysis was performed. All variables that significantly contributed to the final model were retained in the final model. Crude and adjusted odds ratios (AOR) and 95% confidence intervals (CI) were reported for bivariate and multivariable logistic regression analysis respectively. Statistical analyses were carried out using SPSS version 15 (SPSS, Chicago, IL, USA).

Results

The average age of respondents (table 1) was 25 years (SD 4) and of their husbands was 30 years (SD 5). Almost all of the women (97.4%) were up to 34 years of age at the time of the survey. Approximately 17% of the women got married at <18 years of age. The spouse was 1–9 years older among 81% of the women and was \geq 10 years older among 12% of the women. A high proportion of women (71.2%) and their husbands (72.4%) had attained primary level of education and above. Only 4% of women were employed whereas almost all of their husbands (98.4%) were employed. Nearly three-quarter of the women lived in an extended type of family. The index pregnancy was the first pregnancy for 37% of women, whereas the remaining women were either multi gravida (50%) or grand multi gravida (12.8%). Approximately 14% of the women reported the index pregnancy as unwanted.

Nearly 21% (104/500) of the women reported being sexually abused in their marital life by intimate partner. Almost all of them (n = 103) in some point in time were physically forced to have sexual intercourse against their will. Thirty-six percent of these women (37/104) were forced to do sexual act which they considered as degrading and humiliating, while 19% (20/104) submitted to the husband's demand because of the unknown fear of reaction by the husband in case of refusal. However, sexual abuse did not necessarily occur in isolation as many of these women reported a combination of emotional and/or physical abuse with sexual abuse (table 2).

Significant risk factors at the bivariate level for ever experiencing sexual abuse in marital life included grand multi gravidity, unwanted pregnancy and conflict with inlaws. Perceived social support by women was protective against sexual abuse (table 3).

In multivariable analysis, women having five or more pregnancies (AOR = 2.78; 95% CI 1.12-6.96), considered current pregnancy as unwanted (AOR = 2.64; 95% CI 1.16-6.02) and those who reported conflicts with in-laws (AOR 1.9; 95% CI 1.14-3.16) were at greater risk of sexual intimate partner abuse. Women, who reported increase level of social support, were at lower risk of sexual violence. With each one-point increase in perceived social support, the risk of sexual assault decreases by 76% (95% CI 0.58-0.98).

Table 1 Demographic and reproductive characteristics of women between 15 and 49 years of age interviewed in four tertiary-care hospitals of Karachi, Pakistan (n = 500)

Table 3 Unadjusted and adjusted ORs (95% CI) for selected characteristics possibly associated with marital sexual abuse

Characteristics	n (%)
Current age of women, years	
<25	224 (44.8)
25–34	263 (52.6)
≥35	13 (2.6)
Age at marriage, years	
<18	86 (17.2)
18–22	242 (48.4)
>22	172 (34.4)
Age difference	
Spouse younger or same age	33 (6.6)
Spouse 1–9 years older	406 (81.4)
Spouse ≥ 10 years older	60 (12.0)
Educational level (Self)	, , , , , , , , , , , , , , , , , , ,
Post-secondary	192 (38.4)
Primary to secondary	164 (32.8)
Below primary	144 (28.8)
Occupation (Self)	,
House wife	479 (95.8)
Employed	21 (4.2)
Educational level (spouse)	21 (1.2)
Post-secondary	239 (47.8)
Primary to secondary	123 (24.6)
Below primary	138 (27.6)
Occupation (spouse)	150 (27.0)
White collar	82 (16.4)
Blue collar	410 (82.0)
Jobless	8 (1.6)
Median per capita monthly household	1000
	1000
income (in rupees)* Family structure	
	120 (25 9)
Nuclear	129 (25.8)
Extended	371 (74.2)
Gravidity	100 (27.2)
Primigravida Multimovida	186 (37.2)
Multigravida	250 (50.0)
Grand multi Gravida	64 (12.8)
Poor obstetric history	420 (25 0)
Yes	129 (25.8)
No	371 (74.2)
Unwanted pregnancy	()
Yes	69 (13.8)
No	431 (86.2)
Lack of dowry at the time of marriage	
Yes	48 (9.6)
No	452 (90.4)
Mean perceived social support score (SD)	4.90 (0.95)

*1 Rupee = 0.01209 (at the time of publication of this study)

 $\label{eq:constraint} \textbf{Table 2} \ \textbf{Prevalence and pattern of spousal abuse against} women in marital life$

Characteristics	Life time (<i>n</i> = 500)
Types of abuse	
Any act of sexual abuse	104 (20.8)
Any act of physical abuse	142 (28.4)
Any act of emotional abuse	251 (50.2)
Reported act of sexual abuse	(n = 104) ^a
Physically forced to have sexual intercourse against her will	103 (99.0)
Having sexual intercourse because she was afraid of her husband	20 (19.2)
Forced to do a sexual act that she thought was degrading/humiliating	37 (35.6)
Overlap of sexual and other forms of abuse	(<i>n</i> = 104)
Sexual only	18 (17.3)
Emotional and sexual	24 (23.1)
Physical and sexual	1 (1.0)
Emotional, physical and sexual	61 (58.7)

a: Multiple response possible

Characteristics	Marital lifetime crude OR (95% CI)	Marital lifetime AOR (95% Cl)
Age at marriage, years		
<18	1.55 (0.86–2.80)	1.18 (0.54–2.57)
18–<22	0.82 (0.50–1.34)	0.75 (0.41-1.39)
≥22	1.00	1.00
Age difference		
Spouse younger or same age	1.21 (0.53–2.78)	1.32 (0.53-3.30)
Spouse 1–9 years older	1.00	1.00
Spouse \geq 10 years older	0.85 (0.42–1.70)	0.77 (0.36-1.62)
Current age of women, years		
<25	0.52 (0.15–1.78)	1.14 (0.25-5.21)
25–34	0.64 (0.19–2.14)	1.08 (0.28-4.25)
≥35	1.00	1.00
Educational level (self)		
Post-secondary	1.00	1.00
Primary to secondary	1.43 (0.83–2.47)	1.26 (0.60-2.61)
Below primary	1.61 (0.96–2.72)	1.43 (0.80-2.58
Educational level (spouse)		
Post-secondary	1.00	1.00
Primary to secondary	0.90 (0.53–1.53)	0.57 (0.29-1.15
Below primary	1.20 (0.71–2.02)	0.80 (0.43-1.48
Gravidity		
Primigravida	1.00	1.00
Multigravida	1.37 (0.83– 2.24)	1.30 (0.73–2.32
Grand multigravida	2.72 (1.43– 5.20)	2.78 (1.12-6.96
Unwanted pregnancy		
No	1.00	1.00
Yes	4.55 (1.92–10.75)	2.64 (1.16–6.02
Conflicts with in-laws		
No	1.00	1.00
Yes	2.149 (1.352–3.416)	1.90 (1.14–3.16)
Perceived social support	0.63 (0.50–0.79)	0.76 (0.58–0.98
Lack of dowry at the time of ma	arriage	
No	1.00	1.00
Yes	1.85 (0.97–3.56)	1.34 (0.64–2.82)

Discussion

One in five women in our study reported sexual abuse by their intimate partner which is in accordance with what has been documented from South Asia and other low income countries.^{1,9,19–21}

Identifying the various risk scenarios is an important step towards developing efficacious interventions for prevention and treatment of sexual abuse against women in marriage. Women who were sexually abused had high gravidity which is in line with several other studies.^{22–24} Also in our sample, 14% of women mentioned index pregnancy to be unwanted and this was significantly associated with sexual abuse. Evidence from India, Bangladesh and Turkey also supports the relationship between sexual abuse and unwanted pregnancies.^{21,24,25} These findings highlights the vulnerable status of women as they were less able to control their own sexuality and fertility^{21,25,26} and possibly had reduced access to family-planning resources.

Contrary to the idea that wife abuse may be more common in 'private families', we found a strong association of conflict with in-laws and sexual abuse. Cultural attitudes in Pakistan symbolize the notion that wives should respect their husbands and in-laws, and should obey their commands. Also, religiopolitical forces have reinforced patriarchy and gender domination which has caused further marginalization of women. The underlying reason may be that women living in an extended family structure are less mobile and are not able to make their own decisions.²⁷ Even the choice of family size rests with the mother-in-law.²⁸ In our study sample, nearly two-third of the women lived in an extended type of family. Thus, lack of control over decision of her family size leads to frustration and consequently conflicts arise with in-laws. The mental distress in women due to such disputes and conflicts²⁹ increase her vulnerability to any form of spousal abuse. The role of mother-in-law in controlling the family size of the couple leading to conflicts in the family can also be explored in terms of the relationship of parity and unwanted pregnancy with sexual abuse. This is explainable as additional child is an added burden on the already meagre resources of the household and can provoke abuse by the spouse either in response to women's unwillingness to continue with the pregnancy¹⁵ or due to husband's stress to cope with increasing demand on finances.⁹

Social support acts as a buffer against adverse life events.¹⁸ Our study supports the protective effects of increased perceived social support in relation to sexual abuse. Studies suggest that social support is a determining factor in women's response to violence. Abused women who reported having support from their natal families or friends were more likely to seek help,^{30,31} and have reduced risk of adverse mental health such as depression, anxiety, and suicide ideation and action.³²

The results of our study should be interpreted in the light of methodological constraints. There is no standard definition of sexual abuse; therefore comparing international and regional study findings is a challenging task. We analyzed only three abusive behaviours despite the fact that in real life, such behaviours do not necessarily fall into neat categories and women may experience other forms of sexual abuse as well. There are also significant differences across cultures in the willingness to disclose sexual violence to researchers. Hence our results should be examined with caution when making global comparisons as this might be an underestimate as conservative Pakistani women may have refrained from sharing the facts due to shame and embarrassment. The design of this study was limited to asking about sexual abuse only once as evidence suggests that asking about abuse multiple times increases the chances of disclosure by the victim.³³ Since the study populations were predominately of lower socio-economic status presenting to tertiary-care hospitals, we cannot generalize its findings to all women in a population and hence the data from a population-based study would enhance generalizability. The temporal relationship of a number of variables with sexual abuse could not be ascertained due to cross-sectional nature of the study. Thus, what remains unclear is the direction of relationshipwhether multi gravidity/unwanted pregnancy leads to abuse, or vice versa and needs further research.

Despite all these limitations the findings of our study added significant information to the growing body of knowledge about sexual violence and its potential risk factors especially in Pakistan and similar countries.

Pakistan does not have any specific legislation against domestic violence. The Pakistan's legal system is a complex fusion of tribal codes, Islamic law, Indo-British judicial traditions and customary traditions that have created an atmosphere of oppression around women, where any advantage offered to women by one law, is cancelled out by one or more of the others. Woman who claims of sexual assault often face bias within the judiciary and is more likely to be punished for fornication or adultery than to gain success in her suit. However, recently government and policy makers are addressing issues such as honour killings and rapes, but sexual violence in marital relationship is not yet voiced. Raising awareness about sexual rights both at the community and policy levels is strongly recommended.

Conclusion

One in five women reported spousal sexual abuse at some point in their married life. The current study indicates that sexually abused married women of Pakistan are both less able to control their reproduction, as represented by higher rates of unwanted pregnancy and grand multi gravidity, and more likely to experience social isolation. We advocate the formation and strengthening of women group that are targeted towards preventing domestic violence. These groups should work in collaboration with health professionals and other community service providers and policy makers to develop domestic violence intervention services such as counselling program for abusive men, shelters for violence victims and social support that will enhance the status and right of women.

Conflicts of interest: None declared.

Key points

- SIPV is commonly reported among married women of Pakistan presenting to tertiary-care hospitals.
- Women having more than five children, with unwanted pregnancies, or having conflicting relationship with in-laws are more likely to be subjected to sexual abuse by intimate partner.
- Increased level of social support is protective against abuse.

References

- 1 Garcia-Moreno C, Jansen HA, Ellsberg M, et al. Prevalence of intimate partner violence: findings from the WHO multi-country study on women's health and domestic violence. *Lancet* 2006;368:1260–9.
- Heise LL. Violence against women: an integrated, ecological framework. Violence Against Women 1998;4:262–90.
- 3 Walton-Moss BJ, Manganello J, Frye V, Campbell JC. Risk factors for intimate partner violence and associated injury among urban women. *J Community Health* 2005;30:377–89.
- 4 Acierno R, Resnick H, Kilpatrick DG, et al. Risk factors for rape, physical assault, and posttraumatic stress disorder in women: examination of differential multivariate relationships. J Anxiety Disord 1999;13:541–63.
- 5 Hazen AL, Soriano FI. Experiences with intimate partner violence among Latina women. Violence Against Women 2007;13:562–82.
- 6 Home Office. Alcohol and intimate partner violence: key findings from the research. London: Research: Development and Statistics Directorate; Home Office, 2004.
- 7 Raj A, Santana MC, La Marche A, et al. Perpetration of intimate partner violence associated with sexual risk behaviors among young adult men. *Am J Public Health* 2006;96:1873–8.
- 8 Jun HJ, Rich-Edwards JW, Boynton-Jarrett R, Wright RJ. Women's experience with battering and cigarette smoking: added risk related to co-occurrence with other forms of intimate partner violence. *Am J Public Health* (Advance access published 28 June 2007).
- 9 Martin SL, Tsui AO, Maitra K, Marinshaw R. Domestic violence in northern India. Am J Epidemiol 1999;150:417–26.
- 10 Imran R. Legal Injustices: The Zina Hudood ordinance of Pakistan and its implications for women. J Int Women's Studies 2005;7:78–100.
- Shaikh MA. Domestic violence against women perspective from Pakistan. J Pak Med Assoc 2000;50:312–4.
- 12 Fikree FF, Jafarey SN, Korejo R, et al. Intimate partner violence before and during pregnancy: experiences of postpartum women in Karachi, Pakistan. J Pak Med Assoc 2006;56:252–7.

- 13 Karmaliani R, Irfan F, Bann CM, et al. Domestic violence prior to and during pregnancy among Pakistani women. Acta Obstet Gynecol Scand 2008;87:1194–201.
- 14 Garcia-Moreno C, Jansen HAFM, Heise L, Watts C. WHO multi-country study on women's health and domestic violence against women; initial results on prevalence, health outcomes and women's responses. Geneva: World Health Organization, 2005.
- 15 Farid M, Saleem S, Karim MS, Hatcher J. Spousal abuse during pregnancy in Karachi, Pakistan. *Int J Gynaecol Obstet* 2008;101:141–5.
- 16 Watts C, Heise L, Ellsberg M, Jansen H. WHO multi-country study on women's health and domestic violence; study protocol, 2005. http:// www.gfmer.ch/Medical_education_En/PGC_RH_2005/pdf/ WHO_study_women (17 March 2005, date last accessed).
- 17 Zimet GD, Powell SS, Farley GK, et al. Psychometric characteristics of the multidimensional scale of perceived social support. J Pers Assess 1990;55:610–7.
- 18 Dahlem NW, Zimet GD, Walker RR. The multidimensional scale of perceived social support: a confirmation study. J Clin Psychol 1991;47:756–61.
- 19 Varma D, Chandra PS, Thomas T, Carey MP. Intimate partner violence and sexual coercion among pregnant women in India: relationship with depression and post-traumatic stress disorder. J Affect Disord 2007;102:227–35.
- 20 Decker MR, Miller E, Kapur NA, et al. Intimate partner violence and sexually transmitted disease symptoms in a national sample of married Bangladeshi women. *Int J Gynaecol Obstet* 2008;100:18–23.
- 21 Martin SL, Kilgallen B, Tsui AO, et al. Sexual behaviors and reproductive health outcomes: associations with wife abuse in India. *JAMA* 1999;282:1967–72.
- 22 Jacoby M, Gorenflo D, Black E, et al. Rapid repeat pregnancy and experiences of interpersonal violence among low-income adolescents. *Am J Prev Med* 1999;16:318–21.

- 23 Deveci SE, Acik Y, Gulbayrak C, et al. Prevalence of domestic violence during pregnancy in a Turkish community. *Southeast Asian J Trop Med Public Health* 2007;38:754–60.
- 24 Sahin HA, Sahin HG. An unaddressed issue: domestic violence and unplanned pregnancies among pregnant women in Turkey. Eur J Contracept Reprod Health Care 2003;8:93–8.
- 25 Silverman JG, Gupta J, Decker MR, et al. Intimate partner violence and unwanted pregnancy, miscarriage, induced abortion, and stillbirth among a national sample of Bangladeshi women. *Bjog* 2007;114:1246–52.
- 26 Taft AJ, Watson LF. Termination of pregnancy: associations with partner violence and other factors in a national cohort of young Australian women. *Aust N Z J Public Health* 2007;31:135–42.
- 27 Sathar ZA, Kazi S. Women's autonomy in the context of rural Pakistan. Pak Dev Rev 2000;39:89–110.
- 28 Kadir MM, Fikree FF, Khan A, Sajan F. Do mothers-in-law matter? Family dynamics and fertility decision-making in urban squatter settlements of Karachi, Pakistan. J Biosoc Sci 2003;35:545–58.
- 29 Rabbani F. Views about women's mental health: study in a squatter settlement of Karachi. J Pak Med Assoc 1999;49:139–42.
- 30 Hadeed LF, El-Bassel N. Social support among Afro-Trinidadian women experiencing intimate partner violence. *Violence Against Women* 2006;12:740–60.
- 31 Ruiz-Perez I, Plazaola-Castano J, del Rio-Lozano M. How do women in Spain deal with an abusive relationship? *J Epidemiol Community Health* 2006;60:706–11.
- 32 Coker AL, Smith PH, Thompson MP, et al. Social support protects against the negative effects of partner violence on mental health. *J Womens Health Gend Based Med* 2002;11:465–76.
- 33 Gazmararian JA, Lazorick S, Spitz AM, et al. Prevalence of violence against pregnant women. JAMA 1996;275:1915–20.

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