

# Violence against women by intimate partners: use of health services

## *Violência contra as mulheres por parceiros íntimos: Usos de serviços de saúde*

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## Resumo

**Objetivo:** estimar a associação entre violência por parceiro íntimo (VPI) e uso de serviços de atenção primária à saúde em São Paulo.

**Métodos:** Estudo transversal com seleção dos serviços por amostragem de conveniência e de mulheres usuárias desses serviços por amostragem do tipo consecutivo. As unidades amostrais finais de 2674 mulheres de 15 a 49 anos de idade foram categorizadas, segundo a ocorrência e repetição de episódios de qualquer tipo de VPI na vida, como “não”, “sim com alguma repetição” e “sim com muita repetição”. Por meio de regressão logística polinomial, testou-se a associação entre VPI, uso de serviços de saúde e diagnósticos ou queixas das mulheres usuárias (tipo e frequência de registro), ajustadas pelas variáveis sociodemográficas e de saúde sexual e reprodutiva.

**Resultados:** Foi observada uma prevalência de 59% de VPI independente de sua repetição. O maior número de consultas mostrou-se associado com VPI repetitiva, após o ajuste dos efeitos de possíveis variáveis de confundimento. Os diagnósticos e/ou queixas de agravos psicoemocionais registrados, mais de uma vez, no último ano, mostraram-se associados com VPI, aumentando sua magnitude com a maior repetição da violência.

**Conclusões:** É crucial um maior diagnóstico dos casos de VPI entre mulheres usuárias dos serviços de saúde, bem como a implementação de ações que previnam a violência e de cuidado relativamente às necessidades particulares de saúde dessas mulheres. Tais medidas se adotadas, produzirão impactos também no padrão de uso dos serviços.

**Descritores:** violência contra a mulher, uso de serviços de saúde, agravos a saúde, problemas psicoemocionais, violência por parceiro íntimo, repetição de episódios de violência.

## Abstract

**Objective:** To estimate the association between intimate partner violence (IPV) and use of primary healthcare services in São Paulo.

**Methods:** This is a cross-sectional study based on a convenience sample of healthcare services, and on a consecutive type sample of women users of those healthcare facilities. The final sample of 2,674 women 15 to 49 years was classified according to occurrence and repetition of episodes of any type of lifetime IPV as: “no”, “yes with some repetition” and “yes with a lot of repetition”. Association between IPV, use of health healthcare facilities and diagnoses or health care demands (types and frequency of registration) of women users was tested by polynomial logistic regression analysis, and adjusted for sociodemographic and sexual and reproductive health variables.

**Results:** An IPV prevalence of 59% regardless of its repetition was observed. The highest number of visits was associated with repetitive IPV, after adjusting for the effects of potential confounders. Even after adjusting for the effects of possible confounders, the diagnostic and / or psycho-emotional complaints of injuries reported more than once in the past year were associated with IPV, increasing its magnitude with the highest repetition of violence.

**Conclusions:** Better diagnosis of cases of IPV among women users of healthcare services is crucial as is the implementation of actions to prevent violence and to provide health care for the special needs of these women. The adoption of these measures will impact the pattern of use of healthcare services.

**Keywords:** violence against women, use of health services, damages to health, psycho-emotional problems, intimate partner violence, repeated episodes of violence

## Introduction

Healthcare facilities receive an expressive number of women with present and past experience of violence in their emotional-marital relationships, and its most widely studied types are psychological, physical and/or sexual intimate partner violence (IPV). An extensive review of American studies published between 1993 and 2003 on IPV<sup>1</sup> showed a prevalence of physical violence ranging from 20% to 40% and a prevalence of more than one type of violence ranging from 40% to 54% among primary care users. For violence in the past year, the same study showed a prevalence of 7% to 9 % among its users for physical violence, and from 13 to 18% for any type of violence. Other studies confirm these high prevalences among health care users, ranging from 20 to 54% for physical and/or sexual violence by partner at least once in a lifetime and from 12% to 25% in the past year.<sup>2,3,4,5,6</sup>

In Brazil, research with users of primary care and emergency facilities show lifetime prevalence of physical type IPV between 38% and 40% and of sexual violence between 9% and 21%.<sup>7,8,9,10</sup>

In terms of health problems, Plichta (2004)<sup>1</sup> showed associations of violence with immediate effects, such as lesions and trauma that take women to emergency care, both in terms of indirect and long-term effects, like chronic pains, gastrointestinal problems, fibromyalgia, sexually transmissible diseases, recurring urinary infections, menstrual problems, and sexual disorders, among others. This study draws attention to the high rates of association between violence, as measured by the odds ratio, and mental health disorders in users.

In the United States of America, research conducted in the last decade of the 20th century<sup>11,12</sup> have already indicated the fact that women who live in situations of violence use both outpatient and inpatient health care more often, thus defining a specific and expressive clientele, which has been more frequently studied after 2000's.

Although internationally researched, there is no Brazilian study defining the profile of consumption, showing frequency of visits or the number of times battered or abused women use healthcare facilities per year. There are few studies available on the prevalence of these women among users of certain healthcare facilities<sup>7,8,10,13</sup> and even one population-based study that showed the frequency of visits due to emotional problems and psychiatric hospitalizations<sup>14</sup>, did not show any other use pattern. In view of this picture, the present study sought to estimate the association of intimate partner violence with an increased use of primary health care in São Paulo, seeking to describe this use, in terms of demand for care. For such, part of the data derive from a research conducted in facilities of the public healthcare network of Greater São Paulo (SUS-GSP) whose primary objective was to estimate past year and lifetime prevalence of cases of abused women among users of these healthcare facilities<sup>13</sup>.

## Methods

This cross-sectional study selected healthcare facilities by convenience sampling with the criteria of demand volumes between 800 and 1,000 visits/month; presence of a multi-professional team; regularly operating healthcare facilities capable of being regional references for the care of cases of violence; accessible and good quality medical records; assured privacy in interviews; management and teams sensitive to the problem; and belonging to different administrative health regions. The selection of healthcare facilities respected the geographic distribution in the North, South, Center, West, and East regions of the city of São Paulo, also including the municipalities of Santo André, Diadema, and Mogi das Cruzes, all in Greater São Paulo.

Research subjects – women between 15 and 49 years of age interviewed with the application of a face-to-face questionnaire – were selected by consecutive sampling, in the order they arrived at the facility.<sup>13</sup> The

sample was established in an independent way, for each one of the 9 investigation sites, grouping the 19 healthcare facilities participating in the study. Calculation and distribution by site are detailed in another publication<sup>13</sup>. It should be noted that the total number of interviews in each site by time of day (morning or afternoon) and day of the week was distributed proportionally to the usual demand volume in each healthcare facility, for each day of the week and time of the day.

For this paper, of the 3,193 women surveyed at the 19 healthcare facilities, the sample only included users of primary care for one year or more, which corresponded to 2,674 users in 18 healthcare facilities. This cutoff point had the objective of investigating the use of healthcare services with the information provided by the questionnaire and those recorded in the medical charts of interviewees.

Independent variables pertaining to sociodemographic characteristics were: age in years; marital status; years of schooling; skin color; religion.

The variables to measure aspects of sexual and reproductive health were: number of pregnancies and age of first sexual intercourse.

As to the use of healthcare facilities, we collected information about the number of visits in the past year and which diagnoses and/or complaints had been recorded in each visit and their repetition during the past year, which permitted estimating the demands for care made by women, as to their types and the number of times they had been recorded in the charts. As to visits, cutoff point was five visits, complying with the criterion used in most of the studies available in the literature<sup>1,15,16,17</sup>, which usually limit the use of health services based on spontaneous demand by women. Similarly, the use of healthcare services analyzed in this paper excluded the situations in which the frequency of use was determined by the healthcare facility, such as scheduled follow-up visits based on the type of care offered, as for example, in mental health

care and antenatal care. As to the diagnoses/ complaints identified, they were grouped by types: psycho-emotional, gynecological, gastrointestinal problems, body pains (except pelvic and gastrointestinal pain) and performance of blood tests to detect HIV and other sexually transmissible infections. These variables were classified according to the frequency they were recorded in charts, considering none, one and more than one record.

The dependent variable was “having experienced any type of intimate partner violence”, considering the frequency these episodes occurred, based on the question if episodes occurred once, a few times or many times, grouping one and few times in the category “some repetition”. This study considered violence experienced at least once in a lifetime and not just in the past year, based on studies that show that experiencing violence causes long-term health impacts, and may lead to greater use of healthcare or the presence of problems even after episodes are discontinued.<sup>18,19</sup>

Subjects were asked about violence episodes experienced as very well differentiated actions and as questions relative to each one of the types of violence examined: psychological, physical and sexual, as detailed in other publications of the tool used<sup>13,9,20</sup> and validated for different Brazilian contexts. Each type of violence included several items relative to aggressive actions, in which psychological violence included four items; physical, six items; and sexual, three items.

Data collection by application of questionnaires was conducted by professionals trained on approaching “sensitive” themes. Medical charts were read by professionals familiar with the healthcare facilities researched and their records, with specific training on the standardized reading form, prepared for that purpose and monitored by specialized supervision. More details about the tools and field work may be found in Schraiber et al 2007<sup>13</sup>, including the questions about each type of violence: psychological, physical and sexual.

The study was approved by the Research

Ethics Committee of the São Paulo University Medical Center (Hospital das Clínicas, FMUSP), on May 12, 2000. An informed Consent Form was used, as well as other ethical measures recommended by the World Health Organization for sensitive themes such as violence.<sup>9,20</sup>

## Data Analysis

The descriptive analysis is presented using absolute and relative frequencies. Pearson's  $X^2$  and Fisher's exact tests were used for the statistical analysis of the association between two variables, at 0.5 % level of significance.

In the multivariate model for a joint association test of the variables related to the use of healthcare facilities and IPV, a polynomial logistic regression analysis was performed, using the Stata 10.0 statistical suite. The reference variable was never having experienced any IPV. Independent variables that presented a  $p < 0.20$  in the univariate analysis (chi-square) were selected for the multiple model to find the odds ratio. The analysis model tested the association of IPV with the use of healthcare services, including other predictor (independent) variables for the adjustment effect, but without going into much detail about their specific associations. The choice for this type of modeling, which we call “confirmative type”, is due to the fact that we tried to highlight (confirm) the relevance of violence as a factor of impact on the frequency of use of healthcare services and on the repetition of complaints or diagnoses, emphasizing the association to remain.

## Results

Most of the women analyzed ranged from 19 to 28 years of age, were married or in ‘free union’, with 9 to 11 years of schooling, of not-black skin color and of catholic religion. Most of them experienced some type of IPV in their lifetime, most of them with a small repetition of episodes. (Table 1)

Table 1 also shows that most of the

women had had from 1 to 3 pregnancies and started their sexual lives after 15 years of age. As to the number of visits, most had less than five visits in the past year. Among the diagnoses and complaints recorded in their charts, there was a relevant prevalence of problems such psycho-emotional, gynecological, gastrointestinal and body pains recorded more than once, thus indicating that these were the types of diagnoses or complaints recorded, and they were recorded many times.

Variables referring to the use of healthcare services included in the polynomial model were: number of visits, psycho-emotional problems, and body pains. The final model was adjusted by all sociodemographic, sexual and reproductive health variables.

A number of visits greater than five in the past year was associated with many repetitions of IPV, after adjusting for other variables. Psycho-emotional diagnoses and/or complaints recorded more than once in the past year was shown to be associated with IPV, regardless of the repetition of episodes. Moreover, we found a growing increase in the magnitudes of associations with many repetitions of IPV. However, even when women were diagnosed with these problems just once in the past year, the occurrence was associated with many repetitions of IPV (Table 2).

Body pains were not shown to be associated with some repetitions of IPV in any phase of the analysis. Many repetitions of IPV were shown to be associated in the univariate analysis; but after adjusting for other independent variables the association disappeared in the multivariate model (Table 2).

## Discussion

This study confirms the other studies mentioned not just because it shows greater use of healthcare services by women with present or past experiences of violence by their intimate partners, but also because it confirms that this greater use is related to more severe and more frequent violence,

here assessed by the frequent repetition of episodes. In this manner, it can be said, based on the results found, that women who live with repetitive IPV present higher frequency of use of healthcare services and more health problems, especially mental health, which is confirmed by another Brazilian study<sup>14</sup>. Thus, Fanslow and Robinson (2004)<sup>21</sup> in a population-based study showed that women from 15 to 49 years of age who reported IPV presented a two-fold higher odds ratio for going to healthcare facilities in the four weeks before the investigation than those who did not report violence episodes. Kernic, Wolf and Holt (2000)<sup>22</sup>, on the other hand, in a case-control study with women from 18 to 44 years of age showed that there is among case-women (those who had requested a court order for protection against their intimate partners in the year before the research) a relative risk of 2.1 for hospitalizations due to any diagnosis, and an increased relative risk for suicide attempts (3.7), psychiatric diagnoses (3.6), lesions and poisoning (1.8), and problems in the digestive system (1.9) in comparison to the control group.

Another issue that should be mentioned is the fact that, although the present paper did not examine the impact of this greater use of health care on financial costs, this impact is relevant, especially in primary care. Coker et al (2004)<sup>23</sup> indicate a three times higher risk among women with physical IPV in the past year, as compared to those without IPV, with expenses above the usual averages for doctor visits, medication, inpatient expenses and total expenses with health. Ulrich et al (2003)<sup>24</sup>, in a study with women aged 18 years or more, showed that for women submitted to domestic violence, after adjusting for co-morbidities of chronic diseases, there was an increase between 1.6 and 2.3 times in healthcare costs. Moreover, this study shows a much greater use of primary care as compared to other healthcare services, which is confirmed by Loxton et al (2004)<sup>6</sup>, in a national population-based study with 14,100 women aged 45-50 years.

Likewise, Rivara et al (2007)<sup>19</sup>, in a lon-

**Tabela 1** - Frequência das características sociodemográficas, ocorrência e repetição de violência na vida por parceiro íntimo, quantidade de consultas no último ano, e tipos e frequência de registros de queixas ou diagnósticos das mulheres atendidas nos serviços de saúde da cidade de São Paulo. 2005.

**Table 1** - Frequency of sociodemographic characteristics, occurrence and repetition of lifetime intimate partner violence, amount of consultations in the last year and type and frequency of registration of diagnoses or health demands of registration of women attending health services in São Paulo. 2005.

Variables	N	%
<b>Sociodemographic</b>		
<i>Age (years)</i>		
15 to 18	244	9,1
19 to 28	1040	38,9
29 to 38	769	28,8
39 to 49	621	23,2
<i>Marital Statu</i>		
Married/free union	1803	67,4
Has partner/does not live together	371	13,9
Has partner/without sexual intercourse	41	1,5
Does not have partner	459	17,2
<i>Years of schooling</i>		
None	66	2,5
1 to 8	801	30,0
9 to 11	1300	48,7
>12	507	19,0
<i>Skin color</i>		
Black	1015	38,0
Not black	1659	62,0
<i>Religion</i>		
Catholic	1597	59,7
Not catholic	1077	40,3
<b>Sexual and reproductive health</b>		
<i>Number of pregnancies</i>		
None	459	17,2
1 to 3	1615	60,4
4 or more	600	22,4
<i>Age of first sexual intercourse (years)</i>		
Does not know	97	3,63
≤ 15	685	25,6
> 15	1892	70,8
<b>Occurrence and repetition of lifetime intimate partner violence (n=2,575)</b>		
No	1065	41,4
Yes with some repetition	1007	39,1
Yes with many repetitions	503	19,5
<b>Number of visits in the past year, except antenatal care and mental health (n=1,885)</b>		
< 5	1468	78,0
≥ 5	417	22,1

**Tabela 1** - Continuação**Table 1** - Continuation

Variables	N	%
Diagnoses and complaints in the past year by type and frequency of record		
<i>Psycho-emotional</i>		
None	1993	74,5
Once	345	12,9
More than one	336	12,6
<i>Gynecological</i>		
None	1239	46,3
Once	859	32,1
More than one	576	21,5
<i>Gastrointestinal</i>		
None	1937	72,4
Once	367	13,7
More than one	370	13,8
<i>Body pains</i>		
None	1752	65,5
Once	466	17,4
More than one	456	17,1
<i>Test for HIV and/or other STDs</i>		
Nenhum	2414	90,3
Once or twice	11	0,4
More than twice	249	9,3

**Tabela 2** - Odds ratios brutas e ajustadas das mulheres que experimentaram VPI segundo número de consultas e diagnósticos e/ou queixas (por tipo e frequência de registro) no último ano.**Table 2.** Crude and adjusted odds ratio of women that experienced IPV by number of visits and diagnoses and/or health demands (by type and frequency of registration) in the last year

Variables	violence with some repetition				violence with many repetitions					
	%	Crude OR	CI (95%)	adjusted OR	CI(95%)	%	Crude OR	CI (95%)	adjusted OR	CI(95%)
Visits in the past year										
< 5 visits	79,3	1,00		1,00		70,7	1,00		1,00	
≥ 5 visits	20,7	1,03	(0,77;1,29)	1,06	(0,81;1,38)	29,3	1,58	(1,18;2,11)	1,54	(1,13;2,11)
Diagnoses or complaints										
<i>Psycho-emotional</i>										
Never	73,5	1,00		1,00		68,8	1,00		1,00	
Once	12,3	1,09	(0,83;1,43)	1,09	(0,83;1,44)	16,7	1,58	(1,17;2,15)	1,40	(1,01;1,94)
More than once	14,2	1,50	(1,14;1,96)	1,49	(1,13;1,97)	14,5	1,63	(1,18;2,26)	1,48	(1,05;2,08)
<i>Body Pains</i>										
Never	65,5	1,00		1,00		58,8	1,00		1,00	
Once	17,2	1,14	(0,91;1,45)	1,12	(0,88;1,43)	20,5	1,52	(1,15;2,01)	1,28	(0,94;1,72)
More than once	17,3	1,20	(0,94;1,53)	1,17	(0,92;1,50)	20,7	1,60	(1,21;2,12)	1,33	(0,98;1,80)

**Nota:** Os modelos foram ajustados pelas seguintes variáveis: sociodemográficas; de saúde sexual e reprodutiva.

**Note:** The models were adjusted by the following variables: sociodemographic; sexual and reproductive health.

itudinal cohort study with women aged 18 to 64 years, comparing those with (n=1,546) and without history of IPV (n=1,787), concluded that visits to primary, specialized or pharmaceutical healthcare facilities were 14% to 21% greater among women with IPV and for these, the number of visits to primary care was higher than to specialized healthcare facilities. Frequencies were greater during the IPV period and decreased after the cessation of violence. However, even five years after the end of IPV, women with a history presented significantly greater use rates in all types of healthcare services studied (mental health, substance abuse control services, outpatient facilities in hospitals, and emergency care), except for hospitalizations.

These data, as well as our results, indicate how much primary care is important to the women who suffer IPV and how much the improvement of their care is relevant to their health. This aspect is crucial for better equity of care and the recognition of women's rights, not to mention the savings in the provision of healthcare that the health system as whole could have.

On the other hand, although some authors indicate the association between IPV and problems like chronic pain<sup>25,1</sup>, in this study this association, observed in the univariate analysis, did not remain in the multivariate analysis. This result may be attributed to the size of the sample, and could indicate one of the limitations of

this study. Another limitation is the cross-sectional design, preventing an analysis of IPV in relation to time, and thus rendering a more accurate estimation of the impacts of violence impossible.

Even so, being the first Brazilian study on the relationship between IPV and the frequency of consumption of primary healthcare services, in addition to the type of visit sought, our findings already indicate an association between the occurrence of IPV and the high frequency of demand for healthcare, similarly to the international studies mentioned. We also found an association of IPV with certain health conditions in women who suffer violence, confirming the relevance of its impact on mental health. The associations observed show the importance of quality of life issues for women who experience IPV, which must be tackled, as well as the unsuitability of healthcare they receive, once very few acknowledge these cases.<sup>13,26,27</sup>

## Conclusion

The results, therefore, allow concluding that it is necessary to improve the diagnosis of these cases among healthcare users. Moreover, they indicate the need to implement actions that will not only provide care to the unique features of the health problems of women with IPV, but especially that they may prevent and control violence, which will also impact the usage pattern of healthcare.

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## Referências

1. Plichta SB. Intimate Partner Violence and Physical Health Consequences. *Journal of interpersonal violence* 2004; 19(11): 1296-1323.
2. Eisenstat SA, Bancroft L. Domestic violence. *New England Journal Medicine* 1999; 341(12): 886-9.
3. Maiuro RD, Vitalino PP, Sugg NK, Thompson DC, Rivara FP, Thompson RS. Development of a health care provider survey for domestic violence: psychometric properties. *Am J Prev Med* 2000; 19(4): 245-52.
4. Naumann P, Langford D, Torres S, Campbell J, Glass N. Women battering in primary care practice. *Fam Pract* 1999; 16(4): 343-52.
5. Richardson J, Coid J, Petruckevitch A, Chung WS, Moorey S, Feder G. Primary Care. *BMJ* 2002; 324(7332): 274.
6. Loxton D, Schofield M, Rafat H. History of domestic violence and health service use among mid-aged Australian women. *Australian and New Zealand Journal of Public Health* 2004; 28(4): 383-88.
7. Kronbauer JFD, Meneghel SN. Perfil da violência de gênero perpetrada por companheiro. *Rev Saude Publica* 2005; 39(5): 695-701.



8. Silva IV. Violência contra mulheres: a experiência de usuárias de um serviço de urgência e emergência de Salvador, Bahia, Brasil. *Cad Saude Publica* 2003; 19(Supl 2): 263-72.
9. Schraiber LB, d'Oliveira AFPL, França-Jr I, Diniz S, Portella AP, Ludermir AB et al. Prevalência da violência contra a mulher por parceiro íntimo em duas regiões do Brasil. *Rev. Saúde Pública* 2007; 41(5): 797-807.
10. Marinheiro ALV, Vieira EM, Souza L. Prevalência da violência contra a mulher usuária de serviço de saúde. *Rev Saúde Publica* 2006; 40(4): 604-10.
11. 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 care internal medicine practices. *Ann Intern Med* 1995; 123(10): 737-46.
12. Koss M, Koss PK e Woodnuff WJ. Deleterious effects of criminal victimization on women's health and medical utilization. *Archives of Internal Medicine* 2000; 151(1991): 342-347.
13. Schraiber LB, d'Oliveira AFPL, Couto MT, Hanada H, Kiss LB, Durand J et al. Violência contra a mulher entre usuárias de serviços básicos de saúde da rede pública da grande São Paulo. *Rev Saúde Pública* 2007; 41(3): 359-67.
14. Palazzo LS, Kelling A, Béria JU, Figueiredo ACL, Gigante LP, Raymann B et al. Violência Física e fatores associados: estudo de base populacional no sul do Brasil. *Rev Saúde Pública* 2008; 42(4): 622-29
15. Andersson S-O, Mattsson B, Lynoe N. Patients frequently consulting general practitioners at a primary health care centre in Sweden – a comparative study. *Scand J Soc Med* 1995; 4: 251-257.
16. Byrne M, Murphy AW, Plunkett PA, Murray A, Bury G. Frequent attenders to an emergency department: a study of primary health care use, medical profile and psychosocial characteristics. *Annals of Emergency Medicine* 2003; 41: 309-318.
17. Malone RE. Heavy Users of emergency services: social construction of a policy problem. *Soc Sci Med* 1995; 40(4): 469-477.
18. Ellsberg M., C., T., Herrera, A., Winkvist, A., & Kullgren, G.. Domestic violence and emotional distress among Nicaraguan women: results from a population based study. *American Psychologist* 1999; 54(1): 30–36.
19. Rivara FP Anderson ML, Fishman P, Bonomi AE, Reid RJ, Carrel D, Thompson RS. Healthcare Utilization and Cost for Women with History of Intimate Partner Violence. *Am J Prev Med* 2007; 32(2): 89-96.
20. Garcia-Moreno C, Jansen HA, Ellsberg M, Heise L, Watts CH, (on behalf of the WHO Multi-country Study Team) 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.
21. Fanslow J, Robinson E. Violence against women in New Zealand: prevalence and health consequences. *Journal of the New Zealand Medical Association* 2004; 117(1206): 1-12.
22. Kernic MA, Wolf ME, Holt VL. Rates and Relative Risk of Hospital Admission among women in Violent Intimate Partner Relationships. *Am J PH* 2000; 90(9): 1416-1420.
23. Coker AL, Reeder CE, Fadden MK, Smith PH. Physical Partner Violence and Medicaid Utilization and Expenditures. *Public Health Reports Association of Schools of Public Health* 2004; 119:557-67.
24. Ulrich YC, Cain KC, Sugg NK, Rivara FP, Rubanowice DM, Thompson RS. Medical Care Utilization Patterns in Women with diagnosed domestic violence. *Am J Prev Med* 2003; 24(1): 9-15.
25. Holtz, AH. Domestic Violence: the new standard of care. *New Jersey Medicine* 1996; 93(8): 33-6.
26. Sugg NK, Innui T. Primary care physician's response to domestic violence. Opening Pandora's Box. *JAMA* 1992; 267(23): 3157-60.
27. Sugg NK, Thompson RS, Thompson DC, Maiuro R, Rivara FP. Domestic violence and primary care. Attitudes, practices and beliefs. *Arch Fam Med* 1999; 8(4): 301-6.