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The Effect of Pregnancy on the Physical and Sexual Abuse of Women That Presented to a State Hospital in Trabzon, Turkey

Aim: To investigate the prevalence of the physical and sexual abuse of women before and during pregnancy, and to determine whether pregnancy affected the abuse of women.

Materials and Methods: This study was performed at a state hospital in the Turkish city of Trabzon and included 762 women that gave birth between July and September 2004. A questionnaire was administered during a face-to-face interview to collect data on sociodemographic factors, exposure to abuse before and during pregnancy, and the women's post-abuse attitudes. Data were analyzed using the McNemar and chisquare tests.

Results: It was determined that 8.8% of the women before pregnancy and 1.6% of the women during pregnancy were subjected to physical and/or sexual abuse by their husbands, and the difference was statistically significant (P < 0.0005). While 17.9% of the women subjected to abuse before pregnancy also suffered similar abuse during pregnancy, 0.3% of the women that were not subjected to abuse prior to pregnancy were exposed to abuse during pregnancy (P < 0.0005). It was also determined that following sexual abuse 46.5% "accepted" what had happened to them, and regarded it as "unimportant and normal", and that 20.9% were "pleased because it had made their husbands happy". No relationships between abuse and sociodemographic factors were found.

Conclusions: During pregnancy, Turkish women are generally less frequently exposed to abuse; however, there is a high probability that those women exposed to abuse prior to pregnancy will also be abused during pregnancy. Another finding of note is that so many women in the study accepted physical and sexual abuse.

Key Words: Women, physical, sexual, abuse, pregnancy, violence, Trabzon

Trabzon'da Bir Devlet Hastanesi'ne Başvuran Kadınlarda Gebeliğin Fiziksel ve Cinsel İstismar Üzerine Etkisi

Amaç: Bu çalışmanın amacı, gebelik öncesi ve gebelik sırasında fiziksel ve cinsel istismar sıklığını ve kadının istismar edilmesinde gebeliğin, değişiklik yapıp yapmadığını belirlemektir.

Yöntem ve Gereç: Bu çalışma Trabzon'daki bir devlet hastanesinde Temmuz-Eylül 2004 tarihleri arasında doğum yapan 762 kadında yürütülmüştür. Yüzyüze uygulanan anket formu ile kadınların sosyodemografik özellikleri, gebelikten önce ve gebelik sırasındaki istismara maruziyeti ve istismar ile ilgili yaklaşımları belirlenmeye çalışılmıştır. Veriler McNemar ve kikare testi ile analiz edilmiştir.

Bulgular: Kadınların % 8,8'inin gebelik öncesinde, % 1,6'sının gebelik sırasında eşi tarafından fiziksel ve / veya cinsel istismara maruz kaldığı ve bu farkın istatistiksel olarak anlamlı olduğu saptanmıştır (McNemar test P < 0,0005). Gebelik öncesinde istismara maruz kalan kadınların % 17,9'u gebeliklerinde de benzer istismara maruz kalırken, daha önce istismara maruz kalmayanların % 0,3'ü gebeliğinde istismara maruz kalmıştır (P < 0,0005). Cinsel istismar sonrasında ise % 46,5'inin "karşılaştığı olayı kabullendiği, önemsiz bulduğu ve doğal karşıladığı", % 20,9'unun "eşini mutlu ettiği için sevindiği" belirlenmiştir. İstismara maruz kalmanın sosdemografik faktörlerle ilişkisi bulunmamıştır.

Sonuç: Türk toplumunda kadın, gebelik döneminde daha az istismara uğramaktadır. Ancak, gebelikten önce istismara uğrayan kadınların, gebelik sırasında da istismara uğrama riski fazladır. Bir diğer dikkat çeken bulgu, araştırma grubunda yer alan kadınların fiziksel ve cinsel istismara uğramasına rağmen, bunu kabulleniyor olmasıdır.

Anahtar Sözcükler: Kadın, fiziksel, cinsel, istismar, gebelik, şiddet, Trabzon

Introduction

Physical and sexual abuse of women is commonly recognized as an important public health problem because of its attendant morbidity, mortality, and long-term impact on women's health, including depression, post-traumatic stress disorder, suicide, substance abuse, reproductive disorders, gynecological problems, and poor pregnancy outcomes (1-5).

In many countries a substantial proportion of women that experience physical abuse also experience sexual abuse. In Mexico and the United States, studies estimate that 40%-52% of women that experienced physical violence from a partner were also sexually coerced by that partner. The prevalences of sexual assault of women by a partner have also been estimated in a small number of national surveys (for example, Canada 8.0%, England, Wales, and Scotland (combined) 14.2%, Finland 5.9%, Switzerland 11.6%, and the United States 7.7%) (6).

Domestic violence affects many women and their families. Although estimates of the prevalence of domestic violence during pregnancy vary, it is likely that most providers of women's health care will encounter pregnant women who experience domestic violence (7).

Domestic violence may have adverse effects on the health of both the pregnant woman and her child, both before and after birth, resulting in stillbirth, low birth weight, premature labor and birth, fetal injury, or miscarriage (8-11). A correlation between abuse during pregnancy and attempted/successful suicide as a cause of maternal mortality has also been reported (12).

Women in Turkey face a wide range of difficulties when they are not pregnant. Different studies have reported varying incidence levels of physical and sexual abuse. One study performed in East and Southeast Anatolia reported that 58% of women suffered physical abuse from their husbands at least once (lifetime) and that 51.9% were victims of non-consensual sex. Another study, again from the eastern part of Turkey, reported that 64% of women experienced some form of psychological or physical abuse during marriage (6,8,13). Deveci et al. reported that 12.4% of women had been abused during the previous year, with 4.8% suffering physical abuse and 4.4% sexual abuse during pregnancy (14).

A number of factors leading to abuse during pregnancy, such as unwanted pregnancy, low income,

low-level education, age, ethnicity, and individual and community factors, have been studied in detail (8,13,15,16). The perception of and importance attached to pregnancy by communities may also lead to variation in the level of the abuse of women.

The present study aimed to highlight the prevalence of physical and sexual abuse of women before and during pregnancy, determine if pregnancy affected such abuse, and determine what the attitudes of the women exposed to it were.

Materials and Methods

This study was performed between July and September 2004 at the Trabzon Maternity and Obstetric Diseases Children's State Hospital, Trabzon, Turkey. This hospital has the highest birth rate and the highest number of births in Trabzon (17).

During this 3-month period, 762 mothers of the 823 that presented to the hospital to give birth were included in the study. In all, 58 mothers declined to participate and 3 were excluded from the study because the information provided in their questionnaires was insufficient.

The questionnaire was administered to all the women by the same physician at least 4 h post delivery. The questionnaire collected data from the mothers about sociodemographic factors (education, age, employment, monthly family income), their partners' attitudes towards them before pregnancy, exposure to physical and sexual abuse before and during pregnancy, and their reactions to the abuse.

Physical abuse was defined as acts of physical aggression, such as slapping, hitting, kicking, and beating, and sexual abuse was defined as unwanted and forced sexual comments or advances during the 12 months prior to pregnancy and during pregnancy (6,8).

Data were analyzed using the McNemar and chisquare tests. The differences were considered to be statistically significant at the conventional P < 0.05.

Results

Mean age of the women was 27.1 ± 5.5 years. In total, 41 (5.4%) women were subjected to physical abuse and 43 (5.6%) were the victims of sexual abuse in the year before pregnancy. During pregnancy, 5 (0.7%)

women were subjected to physical abuse and 7 (1.0%) to sexual abuse. It was determined that 67 (8.8%) women were exposed to physical and/or sexual abuse by their partners before pregnancy, and 12 (1.6%) during pregnancy (McNemar test P < 0.0005); in other words, the prevalence of physical and/or sexual abuse declined by 82.1% during pregnancy.

No relationship was determined between exposure to physical and/or sexual abuse before or during pregnancy and sociodemographic factors, such as age, level of educational, having an income-generating occupation, the age difference between subject and partner, monthly family income, partner's level of education, or parity (Table 1).

Table 1. Physical and/or sexual abuse before and during pregnancy, according to sociodemographic factors.

	Before Pregnancy			Ι	During Pregnancy		
Sociodemographic Factors	n	%	Р	n	%	Р	
Age group (years)			0.507			0.582	
< 25 (n = 288)	25	8.7		5	1.7		
25-29 (n = 229)	16	7.0		5	2.2		
30-34 (n = 172)	17	9.9		2	1.2		
≥ 35(n = 73)	9	12.3		-	0.0		
Education level of women			0.355			0.627	
Illiterate ($n = 34$)	3	8.8		-	0.0		
Primary school ($n = 392$)	40	10.2		5	1.3		
Secondary school (n = 88)	6	6.8		1	1.1		
High school (n = 179)	16	8.9		5	1.3		
University (n = 69)	2	2.9		1	1.1		
Age difference between woman and husband			0.832			0.887	
Older than husband $(n = 65)$	5	7.7		1	1.5		
Same age as husband ($n = 72$)	9	12.5		2	2.8		
1-3 years (n = 217)	19	8.8		4	1.8		
4-6 years (n = 222)	19	8.6		3	1.4		
\geq 7 years (n = 186)	15	8.1		2	1.1		
Husband's education level			0.904			0.734	
Illiterate (n = 10)	1	10.0		-	0.0		
Primary (n = 294)	29	9.9		6	2.0		
Secondary (n = 89)	7	7.9		-	0.0		
High $(n = 241)$	21	8.7		4	1.7		
University (n = 128)	9	7.0		2	1.6		
Working status of women in an occupation providing income			0.133			1.000	
Working $(n = 81)$	3	3.7		1	1.2		
Not working $(n = 681)$	64	9.4		11	1.6		
Monthly family income (\$)			0.706			0.386	
< 200 (n = 166)	14	8.4		1	0.6		
200-399.9 (n = 299)	29	9.7		7	2.3		
400-599.9 (n = 145)	14	9.7		1	0.7		
≥ 600 (n = 152)	10	6.6		3	2.0		
Parity		0.253			0.603		
Nullipara (n = 294)	21	7.1		6	2.0		
Multipara (n = 468)	46	9.8		6	1.3		

Despite a reduction in physical and sexual abuse during pregnancy, as compared to levels before pregnancy, it was determined that 12 (17.9%) out of the 67 women exposed to abuse before pregnancy also suffered abuse during pregnancy.

The women's reactions to their husbands' attitudes towards them were investigated and it was found that women who agreed that "my husband is not understanding and is generally irritable" were exposed to more abuse than the other women ($\chi^2=55.99$, df = 2, P < 0.0005 vs. $\chi^2=16.13$, df = 2, P < 0.0005, respectively); however, prior to pregnancy and during pregnancy, 4.8% and 0.8% of women, respectively, who said "my husband is very understanding", nevertheless suffered abuse (Table 2).

When the 41 women exposed to physical abuse before pregnancy were asked about their reactions, despite saying that they "were distressed, cried, and were angry with their husbands," 14.6% reported that they "did nothing" and 4.9% "thought they had deserved the abuse".

In their reactions to being forced to have sexual relations with their husbands against their wishes, 46.5% stated that they "accepted" what happened to them and considered it "unimportant" and regarded it as "normal," while 20.9% were "pleased" that their husbands were happy as a result of entering into relations against their wishes (Table 3).

Discussion

Pregnancy is a unique period in a woman's life. Since motherhood is highly valued in Turkey, a pregnant woman occupies a very special place within the society. A woman is perceived as an elevated entity at this time. Much of the negative behavior and attitudes she may be exposed to from those around her before pregnancy, particularly from her husband, declines significantly during pregnancy. Indeed, fulfilling a woman's wishes is regarded as a major responsibility. For example, even such unusual wishes as a desire to eat oranges in summer or water melon in winter are tolerated and great efforts are made to comply with them. Children, being regarded as a blessing and valued gift from God, may play a role in this. Proverbs and expressions such as "a home without children is like a well without water" or "I felt as if I had lost a child" are common in Turkey. In addition, the image of the child as a connection to the future of the community developed very early among the Turks. Understanding of and sympathy towards motherhood and children have, therefore, been reported as elements shaping Turkish traditions and customs (18). The elevated position ascribed to motherhood is even more apparent in the saying, "paradise lies under [one's] mother's feet".

There is no screening program for abuse of or violence towards women in Turkey. In addition, the number of studies regarding domestic violence, and

Table 2 Husbands	' attitudes related t	n nhysical and	d sevual ahuse	according to the women.

	Before Pr	egnancy *	During Pregnancy **	
Husband's attitude	n	%	n	%
My husband is very understanding (n = 503)	24	4.8	4	0.8
My husband is understanding, but can sometimes be aggressive towards me (n = 201)	25	12.4	4	2.0
My husband is not understanding and is generally irritable (n = 48)	17	35.4	4	33.3

 $^{*\}chi^2 = 55.99$, df = 2, P < 0.0005;

^{**} χ^2 = 16.13, df = 2, P < 0.0005

Table 3. Women's reactions to physical and sexual abuse.

	n	%
What Was Your Reaction after Physical Abuse?		
I was distressed and cried	23	56.1
I was angry with my husband	8	19.5
I did nothing	6	14.6
I thought I had deserved it	2	4.9
I went to my family and thought about divorce	2	4.9
What Was Your Reaction after Sexual Abuse?		
I considered it unimportant and regarded it as normal	20	46.5
I was upset and distressed	13	30.2
I was pleased to have made my husband happy	9	20.9
I considered divorce	1	2.3

physical and sexual abuse is limited. Among the main reasons for this are women's loyalty to their family, their dismissal of the physical and sexual abuse they suffer, and failure to seek assistance from any legal or healthcare institutions, which stems from an attitude that such abuse is normal or acceptable, and in particular the feeling that even if they were to do so, it is a matter of abuse within the family, a purely domestic and private issue. This contradictory situation stems from changes in the nature of the relationship between men and women in Turkey (historically and socially), but its ancestral content is unique to Turks and has deep psychological roots that need to be acknowledged when considering Turkish cultural behavior (19).

The percentage of women reporting domestic violence during pregnancy varies from country to country; it is especially high in Russia, Poland, and the Czech Republic (20). Population-based studies from Canada, Chile, Egypt, and Nicaragua have found that 6%-15% of women with long-term partners have been sexually abused during pregnancy. In the United States, estimates of abuse during pregnancy range from 3% to 11%. A recent study among 400 villages and 7 hospitals in Pune, India, found that 16% of all deaths during pregnancy were the result of partner violence. Being killed by a partner has also been identified as a significant cause of maternal death in Bangladesh and in the United States (8). The prevalence of abuse reported before and during

pregnancy in various studies is shown in Table 4 (4,13,14,21-29). In the present study, the incidence of abuse was relatively low (8.8% before pregnancy and 1.6% during pregnancy) compared to that generally reported in Turkey and in other countries. This low prevalence may be ascribed to the fact this study was conducted in a hospital, the sample group was not representative of the general population, or that women concealed physical or sexual abuse for various reasons. The definition of abuse may also play an important role in explaining the difference between the prevalence of abuse in this study and that reported in other research.

Nonetheless, one of the most significant findings of this study is that the prevalence of abuse declined significantly (by 82.1%) during pregnancy. Abuse experienced by women before pregnancy was also reported to decline during pregnancy in some other studies (4,18,21,23); however, the reduction observed in the present study was quite dramatic and much greater than that reported in the other studies, which stems from motherhood and pregnancy being regarded as sacred in Turkish society.

When women exposed to abuse during pregnancy were studied it was found that they had also been exposed to it prior to pregnancy. Martin et al. (4) and Hedin et al. (30) reported similar results for physical abuse.

Table 4. Prevalence of physical and sexual abuse in various countries before and during pregnancy.

	Number participating	Before pregnancy (%)	During pregnancy (%)	Form of abuse
Shumway et al.26 Sahin et al.13	567 475	64.6	66.0 33.3	Physical and verbal Physical, sexual, and psychological
Rachana et al.27	7105		20.9	Physical
Hedin et al.30	207	27.5	2.4-14.5	Physical and sexual
Cokkinides et al.25	6143		11.1	Physical
Johnson et al.24	475	17.0	3.4	Physical
Martin et al.4	2648	6.9	6.1	Physical.
Goodwin et al.22	39348	7.3	5.6	Physical
Janssen et al.23	4750		1.2	Physical
Deveci et al.14	249	12.4	4.8-4.4	Physical and sexual
Roelnes et al.28	537	3.9	2.4	Physical and sexual
Efetie et al.29	334		23.4-10.2	Physical and sexual
Topbaş et al. (present study)	762	8.8	1.6	Physical and sexual

Another important finding from the present study is that just about all of the women that were exposed to physical and sexual abuse accepted the phenomenon and behaved self-effacingly. Indeed, even after unwanted sexual relations 20.9% of the women thought they had pleased their husbands and 4.9% of the women thought they had deserved to be physically abused. These findings can be considered as representative of women's attitudes towards their husbands and family unity, and there is a need for sociological and anthropological research to elucidate the reasons behind this way of thinking.

Another striking point is that although no statistically significant difference was determined, when the level of education, which reveals a woman's social status, and female employment were evaluated, the level of abuse among university graduates, working women, and those that stated their husbands "treat them with understanding," an indication of equality within the family, was very low.

As advocates for women, providers of women's healthcare have a duty to act on many levels to increase the awareness of domestic violence, as well as to play a role in changing cultural images and ideas that contribute to violence against women (7). Efforts to counteract the devastation that violence causes, on the societal level.

must be creative and long term. As pregnant women are seen regularly for prenatal care and frequently develop a feeling of trust in healthcare providers, pregnancy offers a significant opportunity for detecting abuse (31).

The most significant results of the present study were that compared to the situation before pregnancy there was a significant reduction in the physical and sexual abuse of women during pregnancy, although those women exposed to abuse prior to pregnancy also suffered from abuse during pregnancy. Another finding is that the abused women appeared to accept the situation. In order to ensure the provision of information/awareness/ educational measures aimed at women and society, if any female victims of abuse are encountered during the provision of either preventive health services or therapeutic health services (routine monitoring, checkups, sickness, pregnancy, maternity, post-maternity care etc.), the areas and dimensions of abuse must be investigated, and if abuse is determined an effort must be made to resolve the problem by a team consisting of doctors, other health professionals, psychiatrists, psychologists, and social workers. Failure to properly investigate the situation may perhaps be regarded as a missed opportunity.

References

- Dunkle KL, Jewkes RK, Brown HC, Yoshihama M, Gray GE, McIntyre JA, Harlow SD. Prevalence and patterns of genderbased violence and revictimization among women attending antenatal clinics in Soweto, South Africa. American Journal of Epidemiology 2004; 160:230-9.
- Rodriguez AM, Bauer MH, McLoughlin E, Grumbach K. Screening and intervention for intimate partner abuse. JAMA 1999; 281: 468-474.
- Donohoe M. Violence and human rights abuses against women in the Developing World. Medscape Ob/Gyn & Women's Health 2003; 8(2). Available from: http://www.medscape.com/ viewarticle/464255 (connecting date 23.04.2004).
- Martin SL, Mackie L, Kupper LL, Buescher PA, Moracco KE. Physical abuse of women before, during, and after pregnancy. JAMA 2001; 285: 1581-1584.
- Velzeboer M, Ellsberg M, Arcas CC, Garcia-Moreno C. Violence against women: The Health Sector Responds. Pan American Health Organization, Silver Spring, Maryland, USA 2003. p. 4-7.
- Jewkes R, Sen P, Garcia-Moreno C. Sexual Violence. Chapter VI. World Report on Violence and Health. (Eds: Krug EG, Dahlberg LL, Mercy JA, Zwi AB, Lozano R) WHO, Switzerland; 2002. p. 149-81.
- Espinosa L, Osborne K. Domestic violence during pregnancy: Implications for practice. Journal of Midwifery & Women's Health 2002; 47: 305-17.
- Heise L, Garcia-Moreno C. Violence by intimate partners. Chapter IV. World Report on Violence and Health. (Eds: Krug EG, Dahlberg LL, Mercy JA, Zwi AB, Lozano R) WHO, Switzerland; 2002. p. 89-121.
- Bacchus L, Mezey G, Bewley S, Haworth A. Prevalence of domestic violence when midwives routinely enquire in pregnancy. Obstet Gynecol Surv 2005; 60: 11-13.
- Valldares E, Ellsberg M, Pena R, Högberg U, Persson LA. Physical partner abuse during: A risk factor for low birth weight in Nicaragua. Obstetrics & Gynecology 2002; 100: 700-5.
- Yost NP, Bloom SL, McIntire DD, Leveno KJ. A prospective observational study of domestic violence during pregnancy. Obstetrics & Gynecology 2005; 106: 61-65.
- McFarlane J, Campbell JC, Sharps P, Watson K. Abuse during pregnancy and femicide: Urgent implications for women's health. Obstetrics & Gynecology 2002; 100: 27-36.
- Sahin HA, Sahin HG. An unaddressed issue: domestic violence and unplanned pregnancies among pregnant women in Turkey. The European Journal of Contraception and Reproductive Health Care 2003; 8: 93-98.
- Deveci SE; Acik Y, Gulbayrak C, Tokdemir M, Ayar A. Prevalence of domestic violence during pregnancy in a Turkish community. Southeast Asian Journal of Tropical Medicine Public Health. 2007; 38(4): 754-60 (abstract).

- Bohn DK, Tebben JG, Campbell JC. Influences of income, education, age, and ethnicity on physical abuse before and during pregnancy. J Obstet Gynecol Neonatal Nurs 2004; 33: 561-71.
- Pallitto CC, O'Campo P. The relationship between intimate partner violence and unintended pregnancy: analysis of a national sample from Colombia. Int Fam Plan Perspect. 2004; 30: 165-73.
- 17. Republic of Turkey, Ministry of Health, General Directorate of Curative Services, Annually Personnel, Patient and Balance Form (Form No: 56) for Trabzon, 2004 (in Turkish, T.C. Sağlık Bakanlığı Tedavi Hizmetleri Genel Müdürlüğü, Personel, Hasta ve Yatak Muvazene Formu, Form No: 56. Trabzon Yıllık İcmali, 2004).
- Ornek SV. Geleneksel Kültürümüzde Çocuk (The Child in Our Traditional Culture). Türkiye İş Bankası Kültür Yayınları. Ankara, 1979. (in Turkish).
- Göka E. Kadın-erkek ilişkileri örneğinde "Türk Grup Davranığı" (In the relations between men and women: Turkish Group Behaviour). http://drerolgoka.20m.com/makale/015.htm (in Turkish)
- Saurel-Cubizolles MJ, Lelong N. Familial violence during pregnancy. J Gynecol Obstet Biol Reprod (Paris). 2005; 34(1 Suppl.): 47-53.
- Hedin LW, Grimstad H, Möller A, Schei B, Janson PO. Prevalence of physical and sexual abuse before and during pregnancy among Swedish couples. Acta Obstet Gynecol Scand 1999; 78: 310-315.
- 22. Goodwin MM, Gazmararian JA, Johnson CH, Gilbert BC, Saltzman EL, PRAMS Working Group. Pregnancy intendedness and physical abuse around the time of pregnancy: Findings from the Pregnancy Risk Assessment Monitoring System, 1996-1997. Maternal and Child Health Journal 2000; 4: 85-92.
- Janssen PA, Holt VL, Sugg NK, Emanuel I, Critchlow MC, Henderson AD. Intimate partner violence and adverse pregnancy outcomes: A population- based study. Obstetrics & Gynecology 2003; 188: 1341-7.
- Johnson JK, Haider F, Ellis K, Hay DM, Lindow SW. The prevalence of domestic violence in pregnant women. International Journal of Obstetrics and Gynaecology 2003; 110: 272-275.
- Cokkinides VE, Coker AL, Sanderson M, Addy C, Bethea L. Physical violence during pregnancy: Maternal complications and birth outcomes. Obstetrics & Gynecology 1999; 93: 661-6.
- Shumway J, O'campo P, Gielen A, Witter FR, Khouzami AN, Blakemore KJ. Preterm labor, placental abruption, and premature rupture of membranes in relation to maternal violence or verbal abuse. The Journal of Maternal-Fetal Medicine 1999; 8: 76-80.
- Rachana C, Suraiya K, Hisham A, Abdulaziz A, Hai A. Prevalence and complications of physical violence during pregnancy. European Journal of Obstetrics & Gynecology and Reproductive Biology 2002; 103: 26-29.

- Roelens K, Verstraelen H, Van Egmond K, Temmerman M. Disclosure and health-seeking behaviour following intimate partner violence before and during pregnancy in Flanders, Belgium: A survey surveillance study. European Journal of Obstetrics & Gynecology 2007; EORO-6141 (in press)
- Efetie ER, Salami HA. Domestic violence on pregnant women in Abuja, Nigeria. Journal of Obstetrics & Gynaecology 2007; 27: 379-382.
- Hedin LW, Janson PO. Domestic violence during pregnancy. Acta Obstet Gynecol Scand 2000: 79: 625-630.
- Henrion R. Domestic violence during pregnancy: screening and management. J Gynecol Obstet Biol Reprod (Paris). 2005; 34 (1 Suppl.): 62-7.