Domestic violence and its impact on married women's health in Eastern Saudi Arabia

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ABSTRACT

الأهداف: تحديد مدى انتشار العنف الأسري في الأحساء، بالإضافة إلى معرفة مدى تأثيره على صحة النساء المتزوجات.

الطريقة: أُجريت هذه الدراسة المقطعية المبنية على استفتاء المجتمع في الأحساء، المنطقة الشرقية، المملكة العربية السعودية وذلك خلال الفترة من يناير إلى يونيو 2010م. شملت الدراسة 2000 مشاركة من المتزوجات سابقاً أو حالياً واللاتي تتراوح أعمارهن ما بين 15–60 عاماً، وقد تم اختيارهن باستخدام طريقة العينة العشوائية العنقودية النسبية. لقد تم جمع البيانات المطلوبة بعد إجراء المقابلات المهيكلة مع المشاركات، ومن ثم تم إجراء التحليل الأحادي المتغير وتحليل المتغيرات المتعددة باستخدام برنامج التحليل الإحصائي SPSS.

النتائج: أشارت نتائج الدراسة إلى أن نسبة انتشار العنف الأسري على مدى الحياة وصلت إلى 39.3%، حيث كانت نسبة انتشار العنف النفسي 35.9%، والعنف الجسدي 17.9%، والعنف الجنسي 6.9%. كانت معدلات العنف الواقع حديثاً خلال الشهر السابق للدراسة كالتالي: 32.7% للعنف بشكل عام، 29.1% للعنف النفسي، 22.8% للعنف الجسدي، 11.8% للعنف الجنسي. أظهرت النتائج تعرض 11% من المشاركات إلى الضرب، و7% للركل في منطقة البطن خلال فترة الحمل. وقد ارتبط العنف الأسري كثيراً بالشعور بتدني مستوى الصحة، وحدوث المرض، والإجهاض، والنزيف، وزيادة مؤشر كتلة الجسم. لقد أدى العنف الأسري الواقع حديثاً إلى زيادة زيارات الطبيب، وزيادة النسبة الأرجحية لكل من: الدوار (1.93)، والنزيف المهبلي (1.83)، وظهور مشاكل في الحركة والأنشطة، والألم، وتناول العقاقير (1.95)، والإجهاد النفسي وذلك خلال الأسابيع الأربعة الأخيرة قبل الاستفتاء. تحملت نسبة كبيرة من النساء العنف من دون طلب العون (41.4%)، فيما شملت ردود فعل الأخريات الشكوى للأسرة، والمعاملة بالمثل، والشكوى للأصدقاء.

خاتمة: أثبتت الدراسة انتشار العنف الأسري في منطقة الأحساء، ولذلك فنحن نوصي بنشر برامج التوعية التي تهدف إلى تثقيف الأزواج الحالية والمستقبلية، كما يجب تدريب مقدمي الرعاية الطبية على كيفية مساعدة مثل هذه الحالات.

Objectives: To identify the prevalence of domestic violence (DV) in Al-Ahsa, and its impact on married women's health.

Methods: This study is a community-based cross-sectional survey conducted from January to June 2010 in Al-Ahsa oasis in the Eastern province of the Kingdom of Saudi Arabia. It included 2000 evermarried women, 15-60 years old, and selected by a 2-stage proportionate cluster random sample. Data was gathered through structured interviews. Univariate and multivariate analysis was carried out using the Statistical Package for Social Sciences version 15.

Results: The prevalence of lifetime DV was 39.3%, 35.9% for mental, 17.9% for physical, and 6.9% for sexual violence. Lower rates of recent (within one month prior to the interview) violence were encountered, that is: overall (32.7%); mental (29.1%); physical (22.8%); and sexual (11.8%). Eleven percent of women were beaten, and 7% were kicked on the abdomen during pregnancy. Lifetime violence was significantly associated with perceived bad general health, disease, abortion, hemorrhage, and body mass index. Recent violence increased the number of doctor visits, and the odds of feeling dizzy (OR=1.93), vaginal bleeding (OR=1.83), movement and activity problems, pain, taking drugs (OR=1.95), and stress significantly during the last 4 weeks before the interview. A large proportion of women tolerated violence without seeking help (41.4%). Common reactions included complaining to own family, treating the perpetrator violently, and complaining to a friend.

Conclusion: We found that DV is prevalent in Al-Ahsa. We recommend awareness programs aiming at educating current and future couples, and proper training of health care providers in assisting the cases of DV.

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Domestic violence (DV) is defined as the threat or exercise of physical, emotional, and/or sexual violence against another adult person with the intent of inflicting harm, or exercising power and control over them.[1] It includes - violence by an intimate partner (VIP) and by other family members, wherever this violence takes place, and in whatever form.[2,3] The pervasiveness of different forms of violence against women within intimate relationships is now well established,[4] while little data is available on domestic non-partner violence (NPV).[2] Findings from nearly 80 population-based studies[5] carried out in more than 50 countries indicate that 10-60% of women who have ever been married (evermarried) or partnered, have experienced at least one incident of physical violence from a current, or former intimate partner. Most studies estimate a lifetime prevalence of partner violence between 20% and 50%.[5] More recently, the World Health Organization (WHO) multi-country study on DV[2] showed that between 15% and 71% of women reported physical, or sexual violence by a husband or partner. Up to 4-12% of women reported being physically abused while pregnant.[6] During the last 3 years, studies were conducted in India,[7] South Africa,[8] Pakistan,[9] Rwanda,[10] Nigeria,[11] and the Islamic Republic of Iran.[12] They emphasized the magnitude of the problem both in non-pregnant and pregnant women.

In many Arab countries, DV is not yet considered a major concern despite its increasing frequency and serious consequences. Surveys in Egypt, Palestine, and Tunisia showed that at least one out of 3 women is beaten by her husband.[13] In Egypt, the overall prevalence of DV varied between 62.2% in women aged 18-50 in Zagazig district,[14] and 89.9% in evermarried women presenting to outpatient clinics in Ain Shams University Hospitals.[15] Other studies in Sudan and Jordan indicate that DV is a public health problem.[16,17] A wide range of health hazards result from violence against women directly, or from its long-term effects. They include injuries, death, sexual, reproductive, mental, and physical health problems.[6,7] Abused women had increased risk of acute respiratory tract infection, gastroesophageal reflux disease, chest pain, abdominal pain, urinary tract infections, headaches, and contusions/abrasions.[18] Unintended head, neck, or facial injuries are considered significant markers for VIP among women presenting to the emergency room department.[19] Pregnant women exposed to violence are at higher risk of vaginal bleeding, and other pregnancy complications.[20] In the Kingdom of Saudi Arabia (KSA), there is paucity of data on DV. It is hard to know exactly how common DV is, as people often do not report its incidence. A national study was conducted in 2005[21] based on 25 women working at a women's prison. Most of them (96%) reported that DV is increasing. The most common form they dealt with was neglect, followed by mental, physical, and sexual abuse.[21] Only 2 studies were conducted targeting women.[22,23] One was in 2002,[22] and the second was in 2009[23]. The first study showed that the incidence of self-reported physical violence during pregnancy was 21%, and it was associated significantly with adverse materno-fetal outcomes.[22] In the second study,[23] 57.7% of evermarried women attending the primary health care centers (PHCCs) in Madinah were everabused, one quarter were physically abused, and 32.8% were emotionally abused. Only 36.7% of the abused women had informed, or discussed the issue with their primary care physician.[23] The data available on the problem of DV in KSA is derived from either a small, or specific group. Accordingly, this study aimed to provide a comprehensive analysis of the phenomenon of DV in Al-Ahsa, exploring both its prevalence, forms, and impact on women's health. It is hoped that the study will be a useful tool for raising awareness on this problem, as well as for informing the work of policymakers and program planners.

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Methods. This study includes 2000 women selected by a 2-stage proportionate cluster random sample. Inclusion criteria were evermarried (currently, or formerly married) Saudi women 15-60 years old, attending the selected PHCCs at Al-Ahsa governorate, Eastern province, KSA from January to June 2010. The size of the sample was calculated by EpiInfo[24] using the following assumptions: number of evermarried women, 15-60 years old, registered at PHCCs of Al-Ahsa is 111,888;[25,26] the prevalence of violence is 33% as reported in some other Arab countries[13] and worst acceptable prevalence is 30%; confidence level is 95%; and the design effect is 2. The calculated sample (1872) was rounded to 2000 women to insure the reliability of our estimates. Considering that 65% of women live in cities, 30% in villages, and 5% in Hejar,[26] the sampled clusters comprised of 10 randomly selected PHCCs such as: 6 from the urban areas (Thulaythya, Hay Al Malik, Bandariya, Mohasen, Rashdiya, and Shamal Mubaraz); 3 from the villages (Jesha, Mansoorah and Omran); and one from Hejar (Harad). Two hundred women were to be recruited from each urban and rural center, and 100 women from Hejar (Harad). All consenting attendees with the predetermined inclusion criteria were interviewed. The response rate was high,

except in Harad where it was only possible to recruit 53 women out of the required 100. One center (Al Yahia) was substituted randomly by Shamal Mubaraz PHCC due to lag in collecting the required data. A preliminary Arabic questionnaire was developed in accordance with that recommended by the U.S. Department of Health and Human Services,[27] and that used in WHO multi-country study on Women's Health and DV against women.[2] Emotional violence was measured by asking the woman whether she has ever been emotionally abused (insulted, belittled, intimidated, threatened, or neglected). Physical violence was measured by asking her if: she was slapped; had something thrown at her that could hurt her; pushed or shoved; hit with a fist, or something else that could hurt; kicked, dragged, or beaten up; choked, or burnt on purpose; and threatened with, or actually a gun, knife, or other weapon was used against her. Sexual violence was measured by being physically forced to have sexual intercourse against her will, having sexual intercourse because of fear, or being forced to do something sexual she found degrading, or humiliating. The questionnaire included personal, socio-demographic characteristics (age, education, and occupation of both partners, marital status, and the duration of marriage), history of disease, abortion, hemorrhage, detailed enquiry regarding violence experienced directed to the woman ever (life time violence) and during last month (recent violence), and their impact on some indicators of women's health (perception of general health, lifelong occurrence of disease, abortion, hemorrhage, body mass index [BMI], feeling dizzy, vaginal bleeding, movement and activity problems, pain, taking drugs and visits to PHCCs), woman's reactions and barriers to seeking medical/social help. The General Health Questionnaire (GHQ-12) was used to assess exposure to stress.[28] Finally, the interviewers measured the blood pressure, weight, and height.

Permission to conduct this study was obtained from King Faisal University Biomedical and Biological Ethics Committee (KFUBBEC), and from the Ministry of Health Medical and Biological Ethics Committee. Each participant signed an informed consent approved by KFUBBEC. Confidentiality of information was emphasized, and that it will not be used for any purpose other than this study.

A pilot study was carried out to explore the feasibility of the study and test the questionnaire from November to December 2009 in 6 of the initially selected centers. The nurses in the selected centers were trained on how to interview the patients and complete the questionnaire. The pilot study included 81 cases (11-14 women per center). The completed questionnaires were gathered, checked, and analyzed. The final questionnaire was developed according to the feedback received from the interviewers based on their interaction with the study participants. Internal consistency in violence scores was 78.4% (Cronbach's alpha). Data was gathered between January to June 2010 through structured interviews based on the Arabic questionnaire. To insure participant's willingness to disclose violence, we employed local Saudi women, mostly nurses for conducting the interviews. They were selected according to their ability to engage with people of different backgrounds in an empathetic manner, and skills in dealing with sensitive issues. We trained the interviewers before starting data collection. They approached target women, and explained the objectives of the study. Only consenting women were included in the study. The questionnaires were reviewed, processed, and checked. Data was fed into the computer using Epi-Info 6 data entry and check programs.[24] The data file was exported to System file, converted into Statistical Package for Social Sciences (SPSS) file, and was subsequently analyzed using SPSS version 15.[29]

Descriptive statistics were calculated according to the nature of the variables (proportions and percentages for the qualitative variables; minimum, maximum, mean ± standard deviation, and median for some quantitative variables). Bivariate analysis was carried out to identify the effect of violence on women's health. The tests of significance used were Chi square, t-test, and Mann Whitney test, and $p<0.05$ was considered significant. Odds ratios (OR) were calculated to quantify the odds of health effect associated with overall violence. Binary Logistic Regression (BLR) was carried out to identify the best combination of health effects (independent variables) that help predict overall violence (dichotomous outcome variable).

Results. A total of 2000 consenting eligible women (1305 from the urban, and 695 from the rural area) attending the 10 randomly selected PHCCs in Al-Asha comprised the study sample. Their age ranged between 16 and 59 years with an average of 32.02 ± 8.59. On the average, husbands were 5.73 years older than their wives. The average number of school years was similar for husbands and wives (11.1 ± 4 years). Only 21.3% of women were employed. Almost a half (53.0%) were teachers, and 19.9% were government employees. One-eighth of husbands were not working, and 0.5% were studying. Most of the women were married (95.9%), 46 were divorced (2.3%), and 37 were widowed (1.9%). The duration of marriage ranged between one and 43 years with an average of 11.4 ± 9.2, and the median duration was 9 years. The lifetime prevalence of overall violence is 39.3%. The prevalence of its 3 forms each alone or combined with other forms of violence is 35.9% for mental, 17.9% for physical, and 6.9%

for sexual. Mental violence alone, or with other forms contributed to 59% of overall DV. **Table 1** shows the prevalence of lifetime violence of single and combined occurrences. The most prevalent forms were mental violence alone, encountered by 18.9% of women, mental and physical violence in 11%, and all 3 forms of mental, physical, and sexual (4.5%). Recent experience of violence did not differ much from lifetime experience. One-third of women reported overall violence: 29.1% mental violence; 22.8% physical violence; and 11.8% sexual violence. The most frequently reported practices of mental violence are insulting (73.1%), belittling (60.8%), intimidation (54%), and neglect (47.4%) as reported by mentally abused women. Common physical acts reported by more than 50% of physically abused women were pushing, slapping the face, and hitting. Three quarters of sexually abused women reported forced sex, and 56.9% had sex out of fear. Eleven percent of abused women reported being beaten, and 7% were kicked at the abdomen while pregnant. Eighteen percent reported that violent treatment got less during pregnancy, while 5.3% reported that it increased (**Table 2**). Husband alone (45.9%), or with others (9.3%) was the most common perpetrator of DV against women. Husbands were responsible for 55.2% of mental, 67.3% of physical, and 86.1% of sexual abuses. Fathers and brothers were involved mostly in mental and physical abuses. Husband's parents were also involved in abusing women. Mothers-in-law alone were responsible for 10.6% of mental violations, while fathers-in-law committed 2.6% of physical, and 1.5% of sexual abuses (**Table 3**). Regarding the impact of lifetime violence on women's health, the study showed that one quarter reported injuries following violence incidents. These included scratches/bruises (12.1%), wounds (3.7%), torsion/sprain (0.9%), fractures (0.9%), loss of consciousness (0.9%), and ear drum, or eye injury (0.6%). Four percent of abused women respondents reported multiple injuries. **Table 4** shows the distribution of women according to some health indicators/problems, and the odds of their occurrence in ever-abused and non-abused women. Bivariate analysis showed that lifetime violence was significantly associated with perceived bad general health. Less abused women felt reasonable (OR=0.359), good (OR=0.228), and excellent (OR=0.147) health than their non-abused counterparts (p=0.000 in all cases). It significantly increased the odds of occurrence of disease, abortion, and hemorrhage. It was also significantly associated with higher BMI.

Recent overall abuse significantly increased the odds of feeling dizzy (OR=1.93), suffering vaginal bleeding

Table 1 - Lifetime prevalence of different forms/combinations of violence in the studied sample.

Form of violence	n	(%)
Mental	378	(18.9)
Physical	49	(2.5)
Sexual	17	(0.9)
Mental + physical	219	(11.0)
Mental + sexual	30	(1.5)
All 3 forms	90	(4.5)
No violence	1217	(60.9)
Total	**2000**	**100.00**

Table 2 - Distribution of studied women according to practices prevalent under each form of lifetime violence (N=2000).

Forms and practices	n	Specified violence (%)	Total
Mental violence	717		(**35.9**)
Insulted	524	(73.1)	(**26.2**)
Belittled	436	(60.8)	(**21.8**)
Intimidated	387	(54.0)	(**19.4**)
Threatened	197	(27.5)	(**9.9**)
Threatened by hurting others	143	(19.9)	(**7.2**)
Neglected	340	(47.4)	(**17.0**)
Physical violence	358		(**17.9**)
Slapped on face	247	(69.0)	(**12.4**)
Pushed	255	(71.2)	(**12.8**)
Hit	213	(59.5)	(**10.7**)
Kicked	123	(34.4)	(**6.2**)
Strangled	25	(7.0)	(**1.3**)
Threatened with a knife or any other weapon	28	(7.8)	(**1.4**)
Hit with a knife or any other weapon	20	(5.6)	(**1.0**)
Sexual violence	137		(**6.9**)
Forced sex	105	(76.6)	(**5.3**)
Had sex because of fear	78	(56.9)	(**3.9**)
Forced shameful behavior	35	(25.6)	(**1.8**)

Table 3 - Distribution of perpetrators in each type of violence as reported by women responding to the question (N=1212).

Perpetrators	Forms of violence: Mental (n=717)	Physical (n=358)	Sexual (n=137)
	n (%)		
Husband alone	329 (45.9)	212 (59.2)	117 (85.4)
Husband with others	67 (9.3)	29 (8.1)	1 (0.7)
Father	55 (7.7)	23 (6.4)	1 (0.7)
Brother	52 (7.3)	42 (11.7)	1 (0.7)
Father-in-law	19 (2.6)	2 (0.6)	2 (1.5)
Mother-in-law	76 (10.6)	10 (2.8)	0 (0.0)
Son	12 (1.7)	7 (2.0)	0 (0.0)
Daughter	6 (0.8)	4 (1.1)	0 (0.0)
Friend	0 (0.0)	0 (0.0)	4 (2.9)
Others	141 (19.7)	60 (16.8)	8 (5.8)

Table 4 - The distribution and odds ratios (OR) of health problems associated with lifetime overall violence in the studied women.*

Women's health indicators	n	(%)	χ^2 *P*-value	OR	95% CL	
					LL	UL
Perceived general health	1991		0.000			
Bad	71	3.6				
Reasonable	367	18.4	0.000	0.359	0.205	0.632
Good	1051	52.8	0.000	0.228	0.133	0.391
Excellent	502	25.2	0.000	0.147	0.084	0.257
Hypertension	1836					
Normal	1611	87.7				
Hypertensive	225	12.3	0.144	1.23	0.92	1.65
Other diseases	1989					
No	1330	66.9				
Yes	659	33.1	0.000	1.925	1.591	2.328
Abortion	2000					
No	1371	68.5				
Yes	629	31.5	0.006	1.307	1.079	1.584
Hemorrhage	1981					
No	1289	65.1				
Yes	692	34.9	0.000	1.424	1.180	1.718

*carried out by bivariate analysis, CL - confidence limit, LL - lower limit, UL - upper limit

Table 5 - The distribution of women according to health indicators and the odds ratio (OR) of health problems associated with recent overall violence (bivariate analysis).

Women's health indicators during the last 4 weeks	n	%	χ^2 *P*-value	OR	95% CL	
					LL	UL
Problem in movement	1984		0.000			
No problem	1131	57.0				
Few	489	24.6	0.020	1.298	1.042	1.617
Some	306	15.4	0.000	2.755	2.128	3.568
Many	55	2.8	0.000	3.012	1.732	5.239
Unable to move	3	0.2	0.997	1.004	.091	11.108
Problem with daily activities	1979		0.000			
No problems	828	41.8				
Few	647	32.7	0.000	1.764	1.420	2.192
Some	383	19.4	0.000	2.571	2.001	3.303
Many	113	5.7	0.000	3.746	2.497	5.620
Unable to do it	8	0.4	0.053	4.132	0.980	17.425
Pain	1994		0.000			
No pain	567	28.4				
Mild	838	42.0	0.000	1.823	1.436	2.314
Moderate	460	23.1	0.000	3.908	2.994	5.100
Severe	110	5.5	0.000	6.253	4.027	9.708
Very severe	19	1.0	0.000	8.874	3.139	25.084
Felt dizzy	1993					
No	1012	50.8				
Yes	981	49.2	0.000	1.933	1.611	2.320
Vaginal bleeding	1981	91.3				
No	1809	8.7				
Yes	172		0.000	1.831	1.337	2.506
Took drugs	1994					
No	794	39.8				
Yes	1200	60.2	0.000	2.367	1.952	2.870
General Health Questionnaire	2000		0.000			
No stress	1813	90.6				
Stress	114	5.7	0.000	8.593	5.253	14.057
Severe psychological stress	73	3.7	0.000	4.239	2.547	7.052

CL - confidence limit, LL - lower limit, UP - upper limit

(OR=1.83), and taking drugs (OR=2.37); p=0.00 in all. It was associated with movement and activity problems, pain, and stress (p=0.000) (**Table 5**). The BLR showed that recent overall violence was best predicted by combination of 5 variables namely, stress, pain, feeling dizzy, taking drugs, or visiting the doctor frequently during the last 4 weeks. Stress (OR=4.2) and very severe pain (OR=3.3) had the largest predictive value, and are associated with higher odds of violence. A large proportion of women reported that they tolerate violent behavior with no reaction, or seeking help (41.4%). Reactions of responding women included: complaining to own family (23.8%); treating the perpetrator similarly (12.4%); complaining to a friend (7.6%); going to hospital/PHCC (3.5%); leaving home (3.2%); and going to police (2.4%); sheikh (2.4%); or social services (0.8%). Out of 372 abused women, a half reported receiving no help at all. A brother (13.4%), mother (12.1%), and father (9.9%) were the most frequent help providers. A friend, relative, father-in-law, and neighbor provided help in 6.4% of cases. Reasons reported for not seeking help and enduring maltreatment were: for the sake of children (37.8%); hoping the perpetrator will get better and stop violating her (23.1%); fear of divorce (16.0%); accepting maltreatment (14.7); and financial dependence on the perpetrator (4.4%).

Discussion. Twenty-five years ago, violence against women was not considered an issue worthy of international attention or concern. Now, it is recognized as a major public health problem, and a violation of human rights.[6] The results of this study showed that DV is as common in Al-Ahsa as in other countries of the world. Contrary to allegations made against women abuse in KSA and other Islamic countries, the present study showed levels that are within the range of physical (13-61%) VIP,[2] and of physical or sexual violence (15-71%) as reported in the WHO Multi-Country study.[6] The prevalence of lifetime overall DV (39.3%) is lower than that observed among women in other Saudi governorates,[23] and in many Muslim counties.[14,15,17,30] It is close to the one year prevalence reported by Sudanese women attending the Arda Medical Centre, Omdurman (41.6%).[16]

As would be expected, the prevalence of recent DV, that is, violence during the month prior to interview in Al-Ahsa is lower than the lifetime prevalence. This is due to the lifelong cumulative nature of lifetime prevalence. The most common practices reported by more than half of the emotionally abused women are insult, belittling, and neglect. Those reported by physically and sexually abused women are slapping the face, pushing and hitting, forced sex, and having sex due to fear of the perpetrator. Eventhough mostly mild forms of mental and physical violence, they still are considered violation of women's rights. The seriousness of violence stems from the fact that its effect is not limited to the woman, but extends to the children. Children witnessing abuse is a well-established risk factor for their involvement in domestic violence later in life.[31] Although pregnancy is often thought of as a time when women should be protected, the beating was reported by 11% of pregnant women in Al-Ahsa. In most WHO Multi-county study locations, between 4% and 12% of pregnant women reported being beaten during pregnancy.[2] Higher prevalence of DV among pregnant women was reported by Saudi (21%),[22] and Nigerian women (63.2%).[11] Considering the detrimental health effects of violence during pregnancy,[2,20,22] the relatively high prevalence in Al-Ahsa suggests a need to routinely screen pregnant women for DV. The 5 variables identified in BLR (stress, feeling pain, or dizziness, taking drugs, and frequent doctor visits) can be used as a screening tool.

Perpetrators of DV in the current study are not different from those reported in other studies.[3] Husband alone or with others, is the most frequent perpetrator. Islam paved the way for good family relations, and set rules that if followed, will ensure family welfare and eliminate DV. Allah Almighty considered men the protectors and maintainers of women,[32] and ordered them to live with their wives on a footing of kindness and equity, and maintain them even if they disliked them.[33] Prophet Mohammed (Peace be upon him) emphasized that men are to be good to their wives, that is, "the best man is the best to his family",[34] and prohibited men from slapping their wives' faces, belittling them, or telling them despicable words.[35]

Fathers- and mothers in-law and daughters are also involved as perpetrators of DV in Al-Ahsa. Mothers-in-law and daughters were involved in cases of mental and physical violence. Fathers-in-law alone was reported in 2 cases (1.5%) of incest. This indicates the need to emphasize sound relations within the family, and for increased awareness of the nature, hazards of violence, and its impact on women and children. The DV negatively correlated with religiosity and religious valuation.[36] Accordingly enhancing compliance with the principles of family life in Islam is necessary. Teaching sexual relation such as, women's duties and rights in that concern is needed as a large proportion of women reported having sex against their will, or because of fear, which is now considered a form of marital rape.[37]

The hazardous sequelae of violence against women are well-documented. The present study showed that DV affected all aspects of health of the studied women. Women exposed to lifetime violence were more at risk of

injuries, perceived ill health, positive history of disease, abortion, and hemorrhage. Recent DV significantly increased the odds of suffering pain, stress, dizziness, taking drugs, and visiting doctors frequently. Similar effects were experienced by most women in the WHO multi-country study.[2] Such impacts are expected to affect the quality of life of women, and are associated with higher levels of anxiety and depression.[6,7,14]

Abused women utilize health services significantly more than non-abused ones. Utilization of emergency department, pharmacy, and specialty care was the highest for women with ongoing abuse.[38] In the present study, abused women visited the PHCCs more frequently and consumed more drugs. This is expected to increase the cost of their medical care. Accordingly, domestic violence not only is a major contributor to ill health and impaired quality of life, but also imposes extra cost to the health care expenditure. Its control is expected to have a beneficial effect on women and family life, and to reduce the cost of medical care.

A large proportion of Al-Ahsa women reported that they tolerate violent behavior with no reaction or seeking help (41.4%). Some women believe that husband's violence against their wives is acceptable.[39] Others use active strategies to maximize their safety, and that of their children by capitulating on their husband's demands.[5] Most reasons reported for not seeking help and enduring maltreatment (for the sake of children, hoping the perpetrator will stop violating her, fear of divorce, accepting maltreatment, and financial dependence on the perpetrator) are the same consistently cited by women for staying in an abusive relationships.[40] At the same time, denial and fear of social stigma often prevent women from reaching out for help. Reactions of abused women in Al-Ahsa included complaining to their own family, or a friend in only one-third of cases. A small proportion sought assistance from doctor/PHCC, police, or religious leader, or social worker, while a few left their husband home. In numerous surveys, 20-80% of abused women say that until the interview they never told anyone regarding their abuse. Those who reach out do so primarily to family members and friends. Few have ever contacted the police.[2,14] Disclosure of DV reduces its occurrence, while hiding it leads to its perpetuation in the community. Women should expose the violence they are exposed to, seek protection against VIP,[41] and be sure that violence will not stop alone. The role of health care providers in detecting and managing violence is unfortunately missing. In Sudan, health care providers were either unaware of the problem, or refrained from interfering beyond physical treatment.[42] The indifference to DV stems from attitudes that it is a private matter, and usually, a justifiable response to misbehavior on the part of the wife.

The role of health care providers was inadequate in Al-Ahsa, too. First, doctors and nurses were not trained on handling cases of violence. They were not familiar with the anti-violence efforts of the Ministry of Social Affairs (MOSA), and consequently unable to advise abused women on what to do, or where to go. Second, only few women (3.5%) approach health services after being exposed to violence. In 2000, Saudi Arabia signed the Convention on the Elimination of All Forms of Discrimination against Women.[43] Efforts to prevent and control violence against women includes: formulating social protection committees; issuing governmental decree no. 366 (3/12/1429 AH) on measures relating to elimination of the problem of DV; drafting of a national strategy on DV; establishing Complaint Center of the General Department for Social Protection to provide services for victims; establishing shelters run by the General Department for Social Protection; and providing courses to individuals and bodies dealing with domestic violence.[44] Inspite of these efforts, a large sector of the population is unaware of them. Efforts need to be communicated to health care providers, the public, and high risk groups.

This study, as in other field studies has its limitations. The violence data were based on self-reports, which might underestimate the actual prevalence. Only consenting women were included, and the list of all eligible attendees during the study period was not compiled. This may lead to participation and sampling bias. We cannot ensure that the included women represent all eligible women in the important characteristics, such as age, for example. However, the large sample size, the employment of local Arabic well-trained interviewers who did their best to convince women to participate, ensuring privacy during the interview process, and the continuous monitoring of field work minimized the potential for such bias. The results can reasonably be generalized to the targeted women.

In conclusion, in this study, it was found that DV is highly prevalent in Al-Ahsa. Women abuse had serious health effects on all aspects of women's health. The government has made many efforts to face the problem of DV, but a lot is still to be accomplished. There is a need for well-planned national awareness campaign directed to the general public, the current and future couples at the secondary school and university level, and during premarital counseling. Messages are to include the magnitude of the problem, the principles of family welfare, dangerous sequelae of abuse to the mother and children. It is to emphasize that DV does not go alone, and the importance of seeking professional help by both victims and perpetrators. Dissemination of the rules of Islam regarding family life, relations, and good morals is encouraged. The role of medical and paramedical

staff is also important. They should be informed and trained on how to screen, manage, and refer victims. The attack should be multisectoral involving not only MOSA, but also Ministry of Health, Ministry of Education, religious and legal bodies, media, and None Government Organizations. Further studies are needed to identify the causes of DV, and men's attitude toward it.

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