Spousal violence against Egyptian women and its impact on reproductive indicators

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Abstract: Domestic violence against women is increasingly recognized as a global problem. It poses a direct threat to women's health and has serious reproductive health consequences. The study aims to identify the relationship between women exposure to spousal violence and some reproductive health indicators. Data from the 2005 Egyptian Demographic and Health Survey (EDHS) were secondary analyzed for 5,613 ever-married women aged 15-49 years**.** The results revealed that more than three in ten women had an experience with any form of spousal violence. Fertility was higher among women have experienced violence than among women who have not (mean number of children ever born was 3.4±2.1 versus 2.9 ± 2.4). Total family planning need was higher among women who have experienced violence than among women who have not. Self reported prevalence of sexually transmitted infections was higher among women who have ever or recently experienced violence than women who have not (21.4%, 26.1% versus. 18.5%). It is concluded that marital violence is related to various negative reproductive health outcomes. Violence against women is a vicious circle that needs to be broken. Actions must be taken to make women and men understand that violence against women is not legitimate or acceptable and that everybody pays a high price for it.
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Key words: Domestic violence – intimate partner- reproductive indicators- health impact

1. Introduction:

Violence against women has been acknowledged worldwide as a violation of basic human rights (United Nations General Assembly, 1991; Pan American Health Organization, 2001). The term "domestic violence" is usually used to define violence exerted toward the woman by a family member (most commonly the husband or the intimate male partner) (Crowell and Burgess, 1996). Violence against women has become a top priority on the agendas of many international health organizations. The Pan American Health Organization has estimated that women lose an average of 1 out of 5 days of healthy life during their reproductive years because of violence (Castro and Vand Ruiz, 2003).

Domestic violence not only poses a direct threat to women's health, but also has adverse consequences for other aspects of women's health and well-being and for the survival and well-being of children (Kishor and Johnson, 2004). Exposure to psychological assault and physical assault demonstrated significant influence on wives' participation in contraceptive decision-making (Chapagain, 2005). Women who reported physical or sexual violence by a partner were also more likely to report having had at least one induced abortion or miscarriage than those who did not report violence (WHO, 2005).

Women who are coerced into sex, or who face abuse from partners are less likely to be in a position to use contraception. Therefore, they more exposed to unintended pregnancy than others. Women who have experienced a sexual assault often fear pregnancy and delay medical examination or health care (Glander *et al.,* 1998). Research reveals an association of violence and higher fertility, although the direction of causality remains unclear (Ellsberg *et al.,* 1999). Up to 40% of women attending for pregnancy termination have experienced sexual and/ or physical abuse at some stage of their lives (Allanson and Astbury, 2001).

A review of over 50 population-based studies performed in 35 countries prior to 1999 indicated that between 10% and 52% of women around the world report that they have been physically abused by an intimate partner at some point in their lives, and between 10% and 30% that they have experienced sexual violence by an intimate partner. Between 10% and 27% of women and girls reported having been sexually abused, either as children or as adults (WHO, 2005).

In the developing countries, large-scale studies have been conducted, between 10 and 69 per cent of women report they have been physically abused by an intimate partner in their lifetime (UNFPA, 2005).

According to Egypt Demographic and Health Survey, 2005, almost half of ever-married women in the reproductive ages have experienced violence at some point since they were 15 years and around one in five reported experiencing violence in the 12

months preceding the survey. The main perpetrators are husbands and physical violence is the most common form of violence (El-Zanaty and Way, 2006).

In Egypt as elsewhere around the world, wife beating is related to various negative health outcomes. Diop-Sbibé *et al.* (2006) found that thirty-four percent of women in their study were ever beaten by their current husband, while 16% were beaten in the past year. Ever-beaten women were more likely to report health problems necessitating medical attention as were women beaten in the past year compared to never-beaten women. Regarding reproductive health, higher frequency of beating was associated with non-use of a female contraceptive method, while antenatal care (ANC) by a health professional for the most recent baby born in the past year was less likely among ever-beaten women.

As domestic violence against women is increasingly recognized and discussed, this study used the available information of EDHS, 2005 about the association between intimate partner violence and reproductive health, which is currently lacking, and can be used to advocate for improved programmatic and policy efforts to address the problem.

Aim of the study:

This study aims to identify the relationship between women exposure to spousal violence and some reproductive health indicators.

2. Material and Methods

Data from the 2005 Egyptian Demographic and Health Survey were secondary analyzed for 5,613 ever- married women aged 15-49 who responded to both the main questionnaire and a special module on women's status. EDHS 2005 used a multistage sampling technique. Survey questionnaires were administered face-to-face by female interviewers. The overall response rate to EDHS-2005 for eligible women was 99.5% in all areas.

The DHS Household Questionnaire collects data on sex, age, education, residence, household possessions and household access to various amenities such as toilet facilities, water and electricity. The DHS Women's Questionnaire collects data for women age 15-49 years on a variety of characteristic, including age, education, marital status, parity, contraceptive use, employment and empowerment status, as well as their husbands' occupation, education.

Domestic violence section was administered to women in the subsample of households (one-third of households). One eligible woman was selected randomly from each of the households in the subsample to be asked the domestic violence section. Weights were incorporated into the calculations to account for the sampling design.

Statistical analysis:

Data analysis was performed using SPSS version 16. Descriptive statistics were calculated. Then cross tabulations and chi-square were performed for categorical data. T-test was used for numerical data. Missing values were excluded in analysis. The 0.05 level was chosen as the level of significance and 95% confidence interval.

According to the experience of violence, women were categorized into the following four groups: ever-experienced violence, experienced violence in the past 12 months preceding the survey (recent violence), ever-experienced violence but not in the past year and never experienced violence.

For assessment the extent to which marital violence affect reproductive health of women, indicators of women's reproductive health were examined for women reported experiencing spousal violence. These indicators included measures of women fertility and their fertility planning status, the occurrence of non-live births, contraceptive use and the self-reported prevalence of sexually transmitted infections. It also included women's access to maternal health care. The analysis of contraceptive use and self reported prevalence of sexually transmitted infections was restricted to currently married women because some of the variables were more appropriate for them. The study examined women's physical health through two measures of nutritional status: body mass index (BMI) and anemia status.

Anemia level was detected based on the measured hemoglobin (gm/ dL) for non-pregnant women: Mild: 10-<12, Moderate: 7- < 10, Severe: < 7 and any anemia: < 12, while for pregnant women: Mild: 10-< 11, Moderate: 7-<10, Severe: < 7 and any anemia < 11.

3. Results

Table (1) presents selected background characteristics of the women in the research sample. Most of them were rural Moslem women and did not work for pay. About 40% of women had complete secondary or higher education.

The percentages of women ever-experienced any form of violence were 35.9% among ever-married women. The rates of experience of recent violence in the year preceding the survey were 20.7%. The most common type of violence was physical violence, followed by emotional form and the least one was sexual form (Table 2).

As shown in Figure (1), pregnancy did not protect women from being abused by their husbands.

Among women who had ever been pregnant, 5% of ever-married women have experienced physical violence during pregnancy by their husbands.

Table (1): Background characteristics of women in the EDHS 2005 domestic violence sample

Background characteristics	Ever-married women	
	No.	%
Current age:		
15-19	251	4.5
20-29	1871	33.3
30-39	1876	33.4
40-49	1614	28.8
Marital status:		
Married	5240	93.4
Divorced/separated	158	2.8
Widowed	215	3.8
Religion:*		
Moslem	5318	94.7
Christian	289	5.1
Residence:		
Urban	2339	41.7
Rural	3274	58.3
Education:		
No education	1922	34.2
Incomplete primary	649	11.6
Complete primary/ some secondary	780	13.9
Complete secondary and higher	2262	40.3
Working status:		
Working for cash	973	17.3
Not working for cash	4640	82.7
Wealth quintile:		
Lowest	1048	18.7
Second	1018	18.1
Middle	1129	20.1
Fourth	1226	21.8
Highest	1192	21.2
Total number of women	**5613**	

* There were 6 missing values

Table (3) shows the mean number of children ever born to ever-married women by age group and the ever-experienced of violence. Results revealed a significant association of violence and higher fertility, as ever-married women who have ever-experienced violence have a higher mean number of children ever born (3.4 $\pm$ 2.1) than women who have never experienced violence (2.9 $\pm$ 2.2), P= 0.000. Also, the table shows that the mean number of births in all age groups tends to be higher for women who have experienced violence than for women who have not.

Women who have experienced violence were less likely to say that their last birth was wanted when it was conceived (72.3%), compared with women who have never experienced violence (79.6 %, P= 0.000), (Table 4).

The result revealed that women who have experienced violence were more likely to be currently using contraception than women who have not experienced violence. About 63% of women who have ever-experienced violence and 63.3 percent of women who have experienced violence in the past year were currently using contraception comparing with 56.1% among women who never experienced violence (Figure 2).

Table (5) shows that women who have spousal violence tend to have higher total need for family planning than women who have not experienced violence. presents that the percent of total need for family planning was 76.8% and 75.3% among women who have experienced violence ever and in the past year, respectively compared with 67.2% among women who have not experienced violence (P< 0.05). Also, the table shows that women who have ever-experienced violence have a higher unmet need for limiting births (10.8%) than women who have never experienced violence (6.4%). Despite the higher current contraceptive use rate among women who have experienced violence, the higher need is also manifested in higher unmet need.

Table (6) presents women's access to antenatal care (ANC) and average number of antenatal care visits they made for the last baby born in the last 5 years. Women who have experienced spousal violence received ANC for 64.9% of last births compared to 74.9% among women who never experienced violence (P< 0.05). The percent of women who made more than 4 ANC visits was 84.4% among women who have experienced violence compared to 87% among women who not abused. The table also shows that the percentage of last births delivered with the assistance of a medical professional was 70.6% among women who have experienced marital violence compared to 78.6% among women how never experienced violence. The percentage of births delivered by Caesarian section was lower for women who were abused (17.7%) than for women who were not abused (23.8%).

Table (7) shows that women who have ever-experienced spousal violence were more likely to have had a non-live birth (26.7%) compared with women who have never experienced violence (22.5%). The difference was statistically significant (P= 0.000).

The EDHS survey asked all women whether they had a sexually transmitted infection in past year; figure (3) shows how this self-reported prevalence of sexually transmitted infections varies by the violence status of women. The proportion of women reporting a sexually transmitted infection was higher among women who have recently experienced violence (26.1%) than among those have ever-experienced violence (21.4%) and those have never experienced violence (18.5%), P= 0.000.

Table (8) shows that the percentage of obesity among women who have ever-experienced violence was significantly higher (49.5%) than among women who have never experienced violence (45.3%), P< 0.05. On the other hand, there was no statistically significant association between anemia and the experience of violence (Table 9).

Table (2): Prevalence of different forms of spousal violence among ever-married women age 15-49, EDHS 2005

Forms of violence	Ever-married women aged 15-49 years			
	Ever-experienced violence		Experienced violence in 12 months preceding the survey	
	No.	%	No.	%
Physical	1863	33.2	1022	18.2
Emotional	981	17.5	575	10.2
Sexual	372	6.6	217	3.9
Any form	2015	35.9	1160	20.7
Number of women	5613		5613	

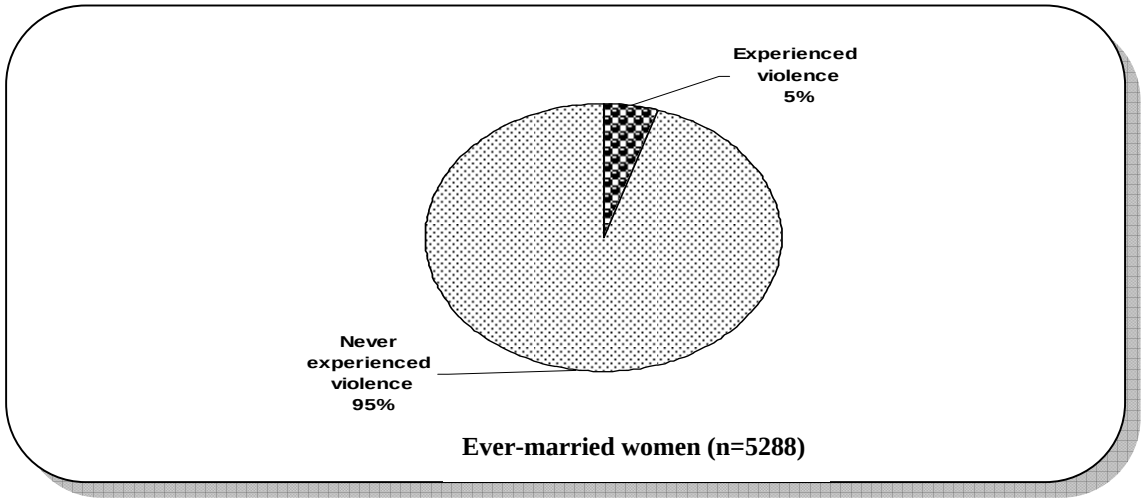

Table (3): Mean number of children ever-born to ever-married women by age according to whether they have experienced spousal violence or not EDHS 2005

Experienced of violence	Age groups in years				Ever-married women	Total no. of women
	15-19 (n=251	20-29 (n=1871)	30-39 (n=1876)	40-49 (n=1614)	15-49 (n=5612)	
Ever-experienced violence	1.0 ± 0.8	2.2 ± 1.2	3.7 ± 1.8	4.7 ± 2.3	3.4 ± 2.1	2015
Never experienced violence	0.4 ± 0.5	1.7 ± 1.2	3.4 ± 1.9	4.4 ± 2.4	2.9 ± 2.4	3597
P-value	0.000	0.000	0.000	0.000	0.000	-

Bivariate relationships are significant according to unpaired t-test.

Table (4): Fertility planning status of ever-married women for last child born in the last 5 years period according to the experience of spousal violence, EDHS, 2005

Experience of violence	Last child born in the last 5 years period			
	Wanted then	Wanted later	Not wanted at all	Total number of last births
Ever-experienced	741 (72.3%)	97 (9.5%)	187 (18.2%)	1,025
Never experienced	1,408 (79.6%)	124 (7.0%)	237 (13.4%)	1,769
P-value	**0.000**			

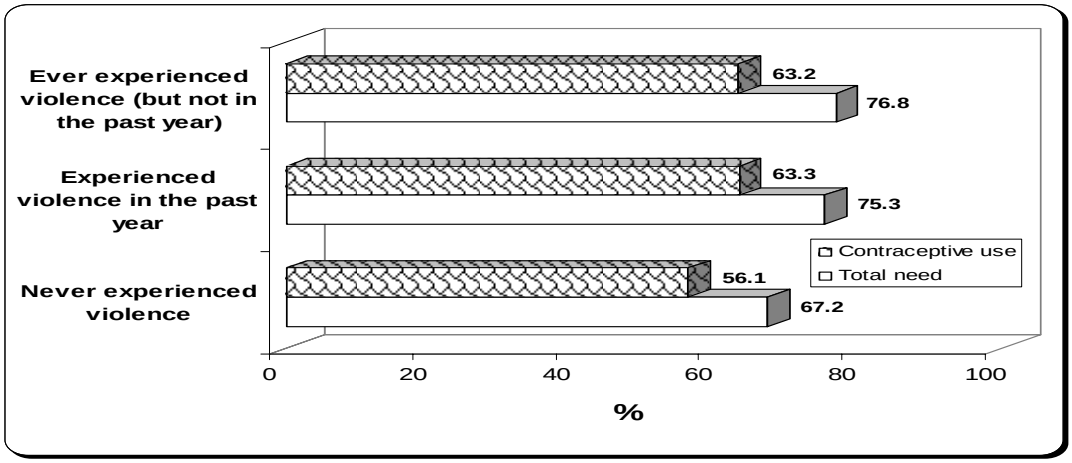

Fig. (2): Percentage of currently contraceptive use of currently married women and total family planning need according to whether they have experienced spousal violence ever, in the past year or never, EDHS 2005

Table (5): Family planning need of currently married women according to whether they have experienced spousal violence ever, in the past year or never, EDHS 2005

Family planning need	Ever-experienced violence (but not in the past year)		Experienced violence in the past year		Never experienced violence	
	No.	%	No.	%	No.	%
Unmet need:[1]						
For spacing	16	2.3	41	3.6	125	3.7
For limiting	76	10.8	76	6.7	218	6.4
Total	92	13.1	117	10.3	343	10.1
Met need:[2]						
For spacing	44	6.3	149	13.2	423	12.4
For limiting	403	57.2	568	50.2	1486	43.8
Total	447	63.5	717	63.4	1909	56.2
Contraceptive failure	3	0.4	18	1.6	28	0.8
Not in need:						
Desire birth < 2 years	60	8.5	182	16.1	727	21.4
Infecund/ menopausal	103	14.6	97	8.6	386	11.4
Total need for family planning [3]	541	76.8	852	75.3	2281	67.2
Total no. of women	704		1131		3394	

N.B.: All bivariate relationships are statistically significant based on the chi-square test.

[1] Unmet need for spacing includes: pregnant women whose pregnancy is mistimed, amenorrheic women whose last birth was mistimed and non-users who are neither pregnant nor amenorrheic and who either want to delay the next birth at least two or more years, are unsure whether they want another child or want another child, but are unsure when to have the birth. Unmet need for limiting includes: pregnant women whose pregnancy is unwanted, amenorrheic women whose last child was unwanted; and non0users who are neither pregnant nor amenorrheic and who want no more children.

[2] Met need includes women who are currently using contraception.

[3] Total need for family planning represents the sum of unmet need and met need. It also includes pregnant and amenorrheic women who became pregnant while using contraception.

Table (6): Access to antenatal and delivery care for the last child born according to whether the mother has ever-experienced spousal violence or not EDHS 2005

	Ever- experienced violence		Never experienced violence	
	No.	%	No.	%
Antenatal care:				
Yes	659	64.9	1299	74.9
No	357	35.1	435	25.1
Total number of births	1016	100.0	1734	100.0
Number of ANC visits:				
1-3	103	15.6	169	13
4+	556	84.4	1130	87.0
Delivery assisted by medical professional:				
Yes	721	70.6	1383	78.6
No	300	29.4	376	21.4
Total number of births	1021	100.0	1759	100.0
Delivery by caesarian section:				
Yes	181	17.7	420	23.8
No	840	82.3	1343	76.2
Total number of births	1021	100.0	1763	100.0

N.B.: Last births with missing information were excluded.
All bivariate relationships are statistically significant based on the chi-square test except no. of antenatal visits.

Table (7): Percentage of ever-married women who have ever had a terminated pregnancy (stillbirth, miscarriage or abortion), according to whether they have ever-experienced spousal violence or not, EDHS 2005

Experience of violence	Ever had a terminated pregnancy		Never had a terminated pregnancy		No. of women have ever had a birth *
	No.	%	No.	%	
Ever-experienced violence	514	26.7	1413	73.3	1927
Never experienced violence	720	22.5	2474	77.5	3194
P-value	**0.000**				

* Women who have never pregnant are excluded.
* Because the timing of the non-live births is not known, data are not presented separately for women who have recently experienced violence (in the past year).

Table (8): Body mass index of ever-married women according to the experienced of spousal violence, EDHS 2005

BMI	Ever-experienced violence		Never experienced violence	
	No.	%	No.	%
Under weight (< 18.5)	7	0.3	11	0.3
Normal range (18.5 – < 25)	357	17.9	724	20.3
Overweight (25 - < 30)	646	32.3	1213	34.1
Obese (≥ 30)	989	49.5	1611	45.3
Total number of women	**1999**	**100.0**	**3559**	**100.0**

P-value= 0.017

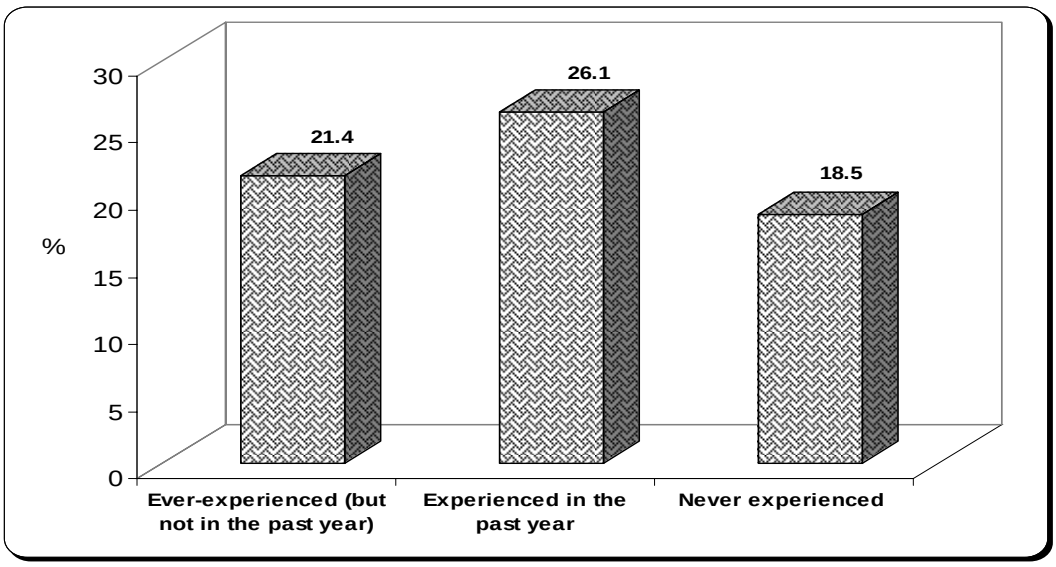

Fig. (3): Prevalence of self-reported sexually transmitted infections in the past year among currently married women according to the experience of spousal violence, EDHS 2005

Table (9): Prevalence of anemia among ever-married women aged 15- 49 years according to the experience of spousal violence, EDHS 2005

Anemia Level	Ever-experienced violence (but not in the past year)		Experienced violence (in the past year)		Never experienced violence	
	No.	%	No.	%	No.	%
Any anemia:	**320**	**38.5**	**447**	**39.0**	**1426**	**40.4**
Mild	263	31.6	363	31.7	1179	33.4
Moderate	54	6.5	83	7.2	237	6.7
Severe	3	0.4	1	0.1	10	0.3
Not anemic	**512**	**61.5**	**699**	**61.0**	**2107**	**59.6**
Total number of women measured hemoglobin	**832**		**1146**		**3533**	

P-value= 0.498

4. Discussion

There is often a culture of silence around the topic of domestic violence, which makes the collection of data in this topic particularly challenging. So data from the 2005 Egyptian Demographic and Health Survey were secondary analyzed. Violence against women is now recognized as a priority issue in many international agencies and local non-governmental organizations (NGOs) around the world. Women in Egypt face a myriad of problems and inequities, and domestic violence is one of the most serious health problems. In the present study the researchers examined the impact of spousal violence on reproductive health of Egyptian women from a nationally representative sample of ever-married women.

Prevalence of different types of domestic violence

Prevalence studies with samples of representative populations are relatively new in developing countries (UNICEF, 2000). Data from developing countries was, however, generally lacking (García-Moreno *et al.,* 2005; Ntaganira *et al.,* 2008; Silverman *et al.,* 2008). There are very few studies concerning domestic violence in Middle-Eastern countries where religion plays an important role in shaping society, the results of which indicate that in countries such as Egypt, Palestine, Israel and Tunisia at least one out of three women is beaten by her husband (Haj-Yahia, 2002; Douki, *et al.,* 2003).

The present study revealed that about one third of the Egyptian women ever-experienced any form of marital violence and one fifth of them experienced a recent violence in the year preceding the 2005 DHS survey. The most common type of violence was

physical violence, followed by emotional form and the least one was sexual form. Bakr and Ismail (2005) found that out of 509 women attending out-patient clinics in Ain Shams University Hospitals, Cairo, 89.8% had experienced one or more episodes of spousal violence and about 34.2% had been beaten by their husbands. In a multi countries study conducted by WHO physical and sexual violence against women was strikingly common. In every setting except Japan, more than a quarter of women in the study had been physically or sexually assaulted at least once since the age of 15 years (García-Moreno *et al.,* 2005). Silverman and his colleagues (2008) found that one third of married Indian women (35.5%) reported experiencing physical intimate partner violence with or without sexual violence from their husbands. In a study conducted in Sudan, the prevalence of physical abuse by husbands reported by the women was 80% (Ahmed and Elmardi, 2005).

On the other hand, the present findings were higher than the result found by Kocacık and his colleagues in Turkey (2007) as 27.5% of studied women have experienced domestic violence by their husbands. Also, American National Violence against Women Survey found that 22% of surveyed women experienced intimate partner violence and reported that they were physically assaulted by a current or former spouse; 1.3% reported experiencing such violence in the previous 12 months (Menard, 2008).

Although pregnancy is often thought of as a time when women should be protected, among women who had ever been pregnant, it was found that 5% of women have experienced physical violence during pregnancy by their husbands. This similar with WHO findings about 5% of the women reported exposure to physical violence during pregnancy. In most study locations, between 4% and 12% of women who had been pregnant reported being beaten during pregnancy (WHO, 2005). This result is much lower than that reported by women in EDHS (1995) as 32% were beaten during pregnancy (El-Zanaty *et al.,* 1996). In a household survey, it was found that pregnant women are about two thirds more likely to be beaten than women who are not pregnant. Violence is cited as a pregnancy complication more often than diabetes, hypertension or any other serious Complication (CDC, 1998). Each year over 300,000 pregnant women in the U.S. are battered by the men in their lives, often the father of their child (Gazmararian *et al.,* 2000). In a study conducted on pregnant women in Rwanda, 35% reported intimate partner violence in the last 12 months (Ntaganira *et al.,* 2008).

Impact on Reproductive health

Experience of violence has long-term negative health consequences. These effects can manifest as poor health status, poor quality of life, and negative outcomes for women and children health high use of health (Campbell, 2002). Women who have ever-experienced domestic violence are less likely to have had a birth that was wanted at the time of conception than women who have never experienced violence and also related with higher rates of ever use of contraceptive methods. Intimate partner violence has been noted in 3–13% of pregnancies in many studies from around the world, and is associated with detrimental outcomes to mothers and infants (Campbell, 2002). Sakar (2008) has reported that physical violence on pregnant women increases the risk for low birth weight infants, pre-term delivery and neonatal death and negatively affects breast feeding postpartum.

The findings from this study confirm that marital violence is associated with negative reproductive health outcomes. The findings reveal an association of violence and high fertility. The direction of the relationship is unclear- whether increased fertility leads to violence o violence leads to high fertility. However, the relationship may work in the opposite direction when there are more children in a household; there is less income per capita as insufficient resources may lead to exacerbated levels of stress for the husband, which may lead to violence (Martin *et al.,* 1999). DHS 2005 data show that fertility of women who have experienced violence was higher that that of women have not. Women experienced violence had a higher mean number of children ever born (3.4 ± 2.1) than women did not (2.9 ± 2.4). Women who are subjects to partner violence may be less able to control their fertility than other women (Kishor and Johnson, 2004).

The analysis revealed that women who have ever experienced violence were significantly less likely to have had the last birth that was wanted at the time of conception than women who have never experienced violence (72.3% versus 79.6%). The hypothesized lack of sexual autonomy among abused women suggests that abused women should be at a greater risk of having a mistimed as well as an unwanted birth. Diop-Sbibé and other researchers (2006) found that wife beating was associated with non-use of female contraceptive methods. Forty percent of pregnant women who have been exposed to abuse report that their pregnancy was unintended, compared to just eight percent of non-abused women (Hathaway *et al.,* 2000). The results of Stephenson *et al.,* 2008 demonstrate a clear relationship between a woman's experience of physical violence from her husband and her ability to achieve her fertility

intentions. Women who have been sexually abused are more likely to have had their partner stop them from using contraception. Salam *et al.,* (2006) found that abused women used contraception significantly less than non-abused women. One study of 474 low-income adolescent mothers found that 66% of abused women had experienced birth control sabotage, versus 34 % of non-abused women (Outlook, 2002).

In most sites, women who reported physical or sexual violence, or both, by a partner were significantly more likely to report having had at least one induced abortion or miscarriage than those who did not report violence, with the association being stronger for induced abortions than for miscarriages (WHO, 2005). The studies show that women with past or current history of abuse had a significantly higher incidence of spontaneous abortions and neonatal deaths. The greater the severity of the acts of aggression, the higher the proportion of women with multiple abortions (Diniz and d'Oliveira, 1998). Saifuddin and his colleagues (2006) found the risks for perinatal mortality were more than two-fold higher among births to mothers who experienced such violence. Fetal deaths have also been associated with the experience of domestic violence during pregnancy in India (Jejeebhoy, 1998).

In this study, antenatal care for the most recent baby born in the past five years was less likely among women experienced violence. The postulated negative relationship between marital violence and antenatal care visits was supported. In Egypt, Kishor and Johnson (2004) found that mothers who were abused received ANC for only 32% of births, compared with 41% of births mother who were not abused. In other study, there was no difference in the use of antenatal services by abused and non-abused women who had had a live birth in the 5 years preceding the interview. However, in urban Bangladesh, Ethiopia, and provincial United Republic of Tanzania, women who were ever physically or sexually abused by their partner were significantly less likely to have attended an antenatal service for the most recent live birth (WHO, 2005).

Our findings revealed that exposure to marital violence related to increases sexually transmitted infections that is consistent with demonstrated by Silverman *et al.,* 2008. Women in violent situations are less able to use contraception or negotiate safer sex, and therefore run a high risk of contracting sexually transmitted diseases and HIV/AIDS. According to a study by Harvard University, one in three teens tested for STIs and HIV/AIDS have experienced domestic violence (Family Violence Prevention Fund, 2009). Women disclosing physical violence are nearly three times more likely to experience a sexually transmitted infection than women who don't disclose physical abuse (Coker, 2000). Studies have hypothesized that women who suffer physical violence are less likely to be in a position to negotiate safe sex or condom use with their husbands. There is also evidence that men who admit perpetrating violence on their wives also admit multiple partner sexual relations and non-use of condoms Data reveal that abusive men are more likely to engage in extra-marital sex and have symptoms of STIs, thereby placing their wives at risk of acquiring infection (Verma and Collumbien, 2003; Salam *et al.,* 2006).

Research suggests that the risk of severe obesity is higher among abused women, particularly women who have experienced abuse in childhood (Williamson *et al.,* 2002). Our results revealed that women who have experienced violence were significantly more likely to be abused (49.5%) than women who have never experience violence (45.3%). In India, women who have experienced violence (34%) to be underweight (Kishor and Johnoson, 2004). As regards the prevalence of anemia, the study did not provide support for significant positive relationship between women experience of violence and their anemia status. However, Kishor and Johnoson (2004) found that in India, women who have experienced violence were more likely (41%) to be underweight. Also, the prevalence of anemia was more between women who have recently experienced violence (57%) and women who have never experienced violence (51%).

This study has some limitations. The EDHS 2005 was cross sectional design and purely quantitative. Such design may provide an indication of the prevalence rate of domestic violence but it is inappropriate for measuring the incidence rate. Also, causality and ordering of the events are uncertain. The other limitation is that the data were derived from women self-reports and, therefore, are liable to all self-report bias.

5. Conclusion

This study concluded that violence against women is alarming, and highlight the urgent need for government and civil society to address the issue and end this scourge that hinders progress toward Egypt's development goals. Violence against women is a vicious circle that needs to be broken. Experience of violence results in negative outcomes for women and children health.

The main recommendations are summarized as the followings:

- Include the subjects of domestic violence in population education, which target the

public at large as well as specific subgroups of the population and using different communication strategies.
- Actions must be taken to make women and men understand that violence against women is not legitimate or acceptable and that everybody pays a high price for it.
- Make use of the regional broadcasting TV and Radio to raise public awareness on the health and social consequences of domestic violence. The message has to be clear and scientific and agreed upon by religious people.
- Provision of health services and counseling places to help the abused women. This could be integrated into the existing maternal and child health services.
- Additional studies focusing extensively on domestic violence against women are needed to emphasize health, psychological and social dimensions of this problem.

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References

Ahmed, AM and Elmardi, AE (2005): A study of domestic violence among women attending a medical center in Sudan. Eastern Mediterranean Health Journal; 11(1): 164 –174.

Allanson, S and Astbury, J (2001): Attachment style and broken attachments: violence, pregnancy and abortion. Australian Journal of Psychology; 53: 146–151.

Bakr, IM and Ismail, NA (2005): Domestic violence among women attending out-patient clinics in Ain Shams University Hospitals, Cairo. Egypt. JEPHAss; 80 (5&6): 629-650.

Campbell, J (2002): Health consequences of intimate partner violence The Lancet; 359 (9314): 1331-1336.

Castro, C and vand Ruiz, A (2003): Violence against Women in Mexico: A study of abuse before and during pregnancy. American Journal of Public Health; 93 (7): 1110-1116

CDC (1998): Battering and Pregnancy. Midwifery Today; 19.

Coker, A; Smith, P; Bethea, L; King, M and McKeown, R. (2000): Physical health consequences of physical and psychological intimate partner violence. Archives of Family Medicine; 9: 451-457.

Chapagain, M. (2005): Masculine interest behind high prevalence of female contraceptive methods in rural Nepal. Aust J Rural Health; 13 (1): 35-42.

Crowell, NA and Burgess, AW (1996): Understanding violence against women. Washington DC, National Academy Press; 96–120.

Diniz, S and d'Oliveira, F. (1998): Gender violence and reproductive health. International Journal of Gynaecology and Obstetrics; 63 (1): S33-S42.

Diop-Sbibé, N; Campbell, JC and Becker, S (2006): Domestic violence against women in Egypt--wife beating and health outcomes. Soc Sci Med.; 62 (5): 1260-1277.

Douki, S; Nacef, F; Belhadj, A; Bouasker, A and Ghachem, R. (2003): Violence against women in Arab and Islamic countries. Arch Women's Mental Health; 6: 165–171.

Ellsberg, MC; Pena, R; Herrera, A; Liljestrand, J and Winkvist, A. (1999): Wife abuse among women of childbearing age in Nicaragua. American Journal of Public Health; 89 (2): 241-244.

El-Zanaty, F; Hussein, E; Shawky, G, Way, A and Kishor, S (1996): Egypt Demographic and Health Survey 1995. Calverton, Maryland (USA), National Population Council (Egypt) and ORC Macro.

El-Zanaty, F and Way, A. (2006): Egypt Demographic and Health Survey 2005. Cairo, Egypt: Ministry of Health and Population, National Population Council, El-Zanaty and Associates and ORC Macro.

Family Violence Prevention Fund (2009): Domestic, sexual violence can harm women's reproductive health. At website: www.endabuse.org

García-Moreno, C; Jansen, H; Ellsberg, M; Heise, L and Watts, C (2005): 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.

Glander, A; Moore, M; Michielutte, R and Parsons, L. (1998): The prevalence of domestic violence among women seeking abortion. Obstetrics and Gynecology; 91: 1002–1006.

Haj-Yahia, MM (2002): Beliefs of Jordanian women about wife beating. Psychology of Women Quarterly; 26: 282–291.

Hathaway, J; Mucci, L; Silverman, J; Brooks, D; Mathews, R and Pavlos, C (2000): Health status and health care use of Massachusetts women

reporting partner abuse. American Journal of Preventive Medicine; 19 (4): 318- 321.
Jejeebhoy, S (1998): Association between wife-beating and fetal and infant death: Impressions from a survey in rural India. Studies in Family Planning; 29 (3): 300-308.
Kishor, S and Johnson, K (2004): Profiling domestic violence: a multi-country study. Measure DHS+. ORC Macro.
Kocacık, F; Kutlar, A; Erselcan, F (2007): Domestic violence against women: A field study in Turkey. The Social Science Journal; 44: 698–720.
Mahajan, A and Madhurima, O (1995): Family Violence and Abuse in India. New –Delhi, Deep and Deep Publication.
Martin, S; Tsui,A; Maitra, K and Marinshaw, R (1999): Domestic violence in northertrn India. American Journal of Epidemiology; 150 (4): 417-426.
Menard, A (2008): Understanding domestic violence definitions, scope, impact and response. National Healthy Marriage Resource Center; No. 1: 1-12.
Ntaganira, J; Muula, A; Masaisa, F; Dusabeyezu, F; Siziya, S and Rudatsikira, E (2008): Intimate partner violence among pregnant women in Rwanda. BMC Womens Health; 8: 17.
Outlook (2002): Violence against women: Effects on reproductive health. 20 (1). At website: http://www.path.org/files/EO2 L20_1.pdf.
Pan American Health Organization (2001): Domestic violence during pregnancy. Regional Office of the World Health Organization. Washington, DC. At website: http:// www.paho.org/genderandhealth.
Saifuddin, A; Michael, A; Koenig, and Rob Stephenson (2006): Effects of domestic violence on perinatal and early-childhood mortality: Evidence from North India. Am J Public Health; 96: 1423–1428.
Salam, A; Alim, A and Noguchi, T (2006): Spousal abuse against women and its consequences on reproductive health: a study in the urban slums in Bangladesh. Matern Child Health J.; 10 (1): 83-94.
Silverman, J; Decker, M; Niranjan, S; Balaiah, D; Raj, A. (2008): Intimate partner violence and HIV infection among married Indian women. Journal of the American Medical Association (JAMA); 300:703-719.
Stephenson, R; Michael, A; Koenig, R and Tarun K (2008): Domestic violence, contraceptive use, and unwanted pregnancy in rural India. Stud Fam Plann.; 39 (3): 177–186.
UNICEF (2000): Domestic violence against women and girls. No. 6 - UNICEF Innocenti Research Centre.
United Nations General Assembly (1991): Advancement of women: convention on the elimination of all forms of discrimination against women. Report of the Secretary-General. New York: United Nations.
UNFPA (2005): Violence against women. State of world population 2005. New York: UNFPA. Available at: www.unfpa.org/culture/case_studies/india_study.htm
Verma, RK; Collumbien, M (2003): Wife beating and the link with poor sexual health and risk behavior among men in urban slums in India. Journal of Comparative Family Studies; XXXIV (1): 61-74.
Williamson, D; Thomson, T; Anda, R; Dietz, W and Felitti, V (2002): Body weight and obesity in adults and self-reported abuse in childhood. Geneva, Switzerland: Department of Gender and Women's Health.
WHO (2005): The women's health and domestic violence against women. Multi-country Study. World Health Organization, Geneva.

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