



GENERAL

J Forensic Sci, November 2011, Vol. 56, No. 6 doi: 10.1111/j.1556-4029.2011.01886.x Available online at: onlinelibrary.wiley.com

Sahar R. Habib,¹ M.D.; Enas K. Abdel Azim,¹ M.D.; Irene A. Fawzy,¹ M.D.; Nashwa N. Kamal,² M.D.; and Amr M. El Sherbini,³ M.D.

Prevalence and Effects of Violence Against Women in a Rural Community in Minia Governorate, Egypt*

ABSTRACT: This study was carried out to investigate prevalence and the characteristics of domestic violence (DV) against women in a rural area in Minia governorate, Egypt, as well as its physical and psychological consequences. Seven hundred and seventy-two women were interviewed. Sociodemographic data were collected; the WHO questionnaire was used to identify the abuse; the Structured Clinical Interview for DSM IIIR (SCID) to detect psychiatric disorders. Abused females constituted 57.4% of the total sample. There were significant relationships between DV and low education, low income, higher number of children, and husband's education. Psychiatric disorders occurred in 18% of the sample. There were statistically significant relationships between psychological and physical abuse of women and the occurrence of psychiatric disorders. In conclusion, DV against women was related to various negative health outcomes, and it is recommended to be given its real importance in both Forensic Medicine Council and in psychiatric assessment.

KEYWORDS: forensic science, domestic violence, female circumcision, rural area, Egypt

Domestic violence (DV) against women is defined as "a pattern of intentional, coercive, and violent behavior toward an individual with whom there is or has been an intimate relationship" (1, p. 47). Violence affects the lives of millions of women worldwide, across all socioeconomic and educational classes (2). DV occurs in all sections of society, regardless of race, ethnicity, religion, or sex. The most common forms of DV are physical abuse, sexual abuse, emotional abuse, economic deprivation, and threats of violence (2).

It has been focused on as a public health issue with severe impact on women's physical and psychological health. Women who experience violence are at risk for a wide range of physical and mental health problems both in the short and long term (3). Abused females have more physical symptoms of poor health and more days in bed than do women who have not been abused (4). Physical and sexual violence have also been associated with psychiatric problems including depression, anxiety, phobias, posttraumatic stress disorder, and suicidality (5,6).

The aims of the current study are to determine the prevalence of violence against women in a rural community in Minia governorate, Egypt, and to study its effects on different aspects of women health to give this issue its real importance in front of Forensic Medicine Council in Egypt.

²Community Medicine Department, Faculty of Medicine, Minia University, Egypt. ³Neuropsyciatry Department, Faculty of Medicine, Minia University,

³Neuropsyciatry Department, Faculty of Medicine, Minia University, Egypt.

Received 20 May 2011; and in revised form 10 Oct. 2011; accepted 23 Oct. 2011.

Subjects and Methods

A community-based cross-sectional study was conducted to determine the DV among rural Egyptian females and to identify the risk factors and psychological consequences of it. People in this rural area depend on agriculture for their livelihood, and agriculture in this area does not provide them with sufficient food security and income.

By a multistage random sample, El-Minia governorate was found to be divided into nine districts from which El-Minia district was chosen randomly (first stage) then it was found to be divided into 41 villages from which one village was chosen; Damarees (second stage) which was divided into eight parts (Ezba) or blocks from which the southern part of Shalaby was chosen randomly (third stage).

Interviews took place in a private place in or outside the respondents' homes, and care has been taken to avoid presence of other family members during interviews. If someone came nearer during interview, the discussion on general health was made and the interview was restarted after the third person has retired. Interviewers stressed that honest responses were needed during the interview to gain insight into the issue. Participants were assured of the confidentiality of their responses. To attain all these, care has been taken to establish rapport with every participant prior to interviews. Women were interviewed by women investigators.

After selecting the village, the research team met village/community heads and elders before initiating the data collection, and the purpose of the survey was explained. Rapport was established with the community and especially the women were taken to the confidence. The research team trained the data collectors to collect the data properly through structured interview questionnaire. Each data collector started by the first household, first of all she asked

¹Forensic Medicine and Toxicology Department, Faculty of Medicine, Minia University, Egypt.

^{*}Presented at the Annual Conference of the Cairo University Forensic Medicine and Toxicology Department, April 19, 2010, in Cairo, Egypt.

permission to enter the house, then, she introduced herself and explained the purpose of the visit to inhabitant and asked about women who fulfill the study criteria. When the eligible women gave verbal consent, the data collector filled the questionnaire. After finishing the first house, the data collector then went to the next house until the whole village was finished. This took about 4 months duration from February 1 to May 31, 2009.

The participants were selected following accessibility criteria; all married females; aged 16–50 years; without cognitive or perceptual disabilities that interfere with conducting the examination.

According to the aforementioned criteria, 772 women were eligible for the purpose of the study.

Survey Instrument Measures

Women in the current study were screened using the following tools:

- Sociodemographic sheet was used to collect data about sociodemographic characteristics of women.
- The World Health Organization (WHO) (7) Multi-Country Study on Women's Health and Life Events. This tool was used to collect data in specific areas (including violence against women, reproductive health, mental health, and tobacco and alcohol use) and was translated to Arabic and back translated to English.
- The Structured Clinical Interview for DSM IIIR (SCID). Spitzer et al. (8) was the main tool used to detect psychiatric disorders in the sample.

According to WHO Multi-Country Study on Women's Health and Life Events (7) and SCID tool (8) for psychiatric evaluation, a well-structured questionnaire had been designed for this study. The questionnaire can be answered in 30–60 min. It included demographic characteristics, intra-household relations, financial autonomy and treatment, decision-making power in choosing, information about pregnancies, use of contraception, and female circumcision. Physical, emotional, psychological, and sexual abuses were gathered from all women. All subjects with a positive history of physical abuse (29.9%) were examined by inspection by the forensic team (first three authors who participated in this work) for signs of physical violence. Only 0.1% of all eligible women refused to participate in this study.

The women of this study were asked if they were abused physically (burnt, hit, slapped, kicked, pushed, received serious contusions, a fracture or trauma to the head or internal organs, or they had received permanent infirmity from a tool or a weapon). If she is emotionally threatened, insulted, humiliated, been extremely jealous, scared, verbally abused such as shouting or name calling and/or sexually abused (forced her to have sex intercourse or sexual contact after being continuously being harassed). These questions had three possible responses: "many times," "sometimes," and "never." A woman was considered to have ever experienced physical abuse if she answered "many times" or "some times" to any of the questions about physical abuse and the same applied to emotional and sexual abuse.

Ethical Considerations

The study protocol has been approved by the standard ethics of Minia University ethical committee for human experimentation; questions in a questionnaire form were translated from English to Arabic by investigators team and were fit with common types of violence against women in rural areas of Egypt. Individual informed oral consent was obtained from all participants, as mentioned earlier. Guidelines of WHO, including the importance of ensuring confidentiality and privacy, both as means to staff, and to improve the quality of the data were followed.

Statistical Analysis

The Statistical Program SPSS for windows version 13 (SPSS Inc., Chicago, IL) had been used in data entry and analysis. Descriptive and analytic statistics were performed. For logistic regression analyses, the dependent variables were dichotomized (presence or absence of violence). The independent variables were categorized into different groups as described under measurements. The accepted level of significance was 0.05 or less.

Results

Sociodemographic Information

In sociodemographic characteristics of the sample (Table 1), it could be seen that 87.8% of the women were housewives, 8% were manual workers, and 2.5% were clerical workers. Nearly, half of the women (49.5%) were illiterate, 12.4% could read and write, 31.5% received moderate education, and 6.6% had received high education. It was found that 8.5% of husbands were not working, while 90.5% had different types of jobs. As regards husband education, most of them could only read and write 23.2%, while 6.5% had high education; 33.2% of the women considered that their family income is usually enough, 49% reported that it is sometimes not enough, and 17.9% said that it is usually not enough.

When comparing women with history of abuse with those without, statistically significant differences emerged. Women with abuse were less educated (p < 0.03), tended to be housewives (p < 0.000); their husbands were more commonly less educated (p < 0.01) and used drugs of abuse more often (p < 0.000). Women with history of abuse reported more financial hardships than those without (p < 0.000).

Prevalence of Abuse by Type and Category

The details of frequency of different behaviors of DV including the multiple types are shown in Table 2. Of women included in the study, 443 (57.4%) reported some form of abuse. Fifty one (6.6%) reported emotional abuse, 231 (29.9%) reported some sort of physical abuse, 60 (7.8%) reported sexual abuse, and 101 (13.1%) showed multiple types of abuse.

As regards emotional abuse, the highest incidence was in "frightening angry look" (13.2%) followed by "insulting using abusive words" (11.7%), and finally "threatening with objects" (8.8%).

Regarding physical violence being "hit and beat" was the most common form of physical violence occurring in 29.8% of the sample, followed by "slapping" in 29%, "hit by an object" in 8.3%, and the least form of physical abuse was "burning" occurring in 0.6% of the sample.

Concerning sexual violence, the denial of sex showed the highest percentage (6.7%) and the lowest percentage was in causing sexual hurt and/or injury in 1.4%.

Comparisons of Women with Different Types of Abuse in Sociodemographic Variables

When comparing women with different types of abuse to each other statistically significant differences emerged. In regard to age,

TABLE 1—Sociodemographic characteristics of the studied sample.

	Whole Sample	No Abuse	Any Abuse	DIG
	N (%)	N (%)	N (%)	Difference Between the Two
Total	772 (100)	329 (42.6)	443 (57.4)	Groups (p)
Age				
16-20	26 (3.4)	8 (2.4)	18 (4.1)	0.01*
21-30	312 (40.4)	124 (37.7)	188 (42.4)	
31-40	281 (36.4)	141 (42.9)	140 (31.6)	
41-50	153 (19.8)	56 (17)	97 (21.9)	
Age at marriage	. ,			
16–20	554 (71.8)	251 (76.3)	303 (68.4)	0.09
21-30	181 (23.4)	66 (20.1)	115 (26)	
31-40	36 (4.7)	12 (3.6)	24 (5.4)	
41-50	1 (0.1)	- (-)	1 (0.1)	
Women education	- (01-)		- (0)	
Illiterate	382 (49.5)	144 (43.8)	238 (53.7)	0.03*
Read and write	96 (12.4)	49 (14.9)	47 (10.6)	0.00
Moderate	243 (31.5)	110 (33.4)	133 (30)	
education	()			
High education	51 (6.6)	26 (7.9)	25 (5.6)	
Women occupation	()	_ ()		
Housewife	678 (87.8)	260 (79)	418 (94.4)	0.000***
Manual work	62 (8)	49 (14.9)	13 (2.9)	0.000
Clerical work	19 (2.5)	14 (4.3)	5 (1.1)	
Professional	13(1.7)	6 (1.8)	7 (1.6)	
Husband education	15 (1.7)	0 (1.0)	7 (1.0)	
Illiterate	301 (39)	107 (32.5)	194 (43.8)	0.01*
Read and write	179 (23.2)	82 (24.9)	97 (21.9)	0.01
Moderate	242 (31.3)	116 (35.3)	126 (28.4)	
education	212 (0110)	110 (0010)	120 (2011)	
High education	50 (6.5)	24 (7.3)	26 (5.9)	
Husband occupation	50 (0.5)	21 (7.5)	20 (5.9)	
Not working	66 (8.5)	31 (9.4)	35 (7.9)	0.7
Manual work	373 (48.3)	153 (46.5)	220 (49.7)	0.7
Clerical work	316 (40)	138 (41.9)	178 (40.2)	
Professional	17 (2.2)	7 (2.1)	10 (2.3)	
Husband drug abuse	17 (2.2)	7 (2.1)	10 (2.5)	
Yes	30 (3.9)	0	30 (6.8)	0.000***
No	742 (96.1)	329 (100)	413 (93.2)	0.000
Number of children	742 (90.1)	527 (100)	415 ()5.2)	
None	60 (7.8)	17 (5.2)	43 (9.7)	0.04*
1-2	271 (35.1)	125 (38)	146 (33)	0.04
More than 2	441 (57.1)	187 (56.8)	254 (57.3)	
Family income		107 (30.0)	237 (31.3)	
Usually enough	256 (33.2)	135 (41)	121 (27.3)	0.000***
Sometimes not	378 (49)	182 (55.3)	121 (27.3) 196 (44.2)	0.000
enough Usually not enough	138 (17.9)	12 (3.6)	126 (28.4)	

p < 0.05, p < 0.001.

women reported emotional abuse tended to be older (range 41-50 years old) (42.2%), while those reported physical abuse were younger (21-30 years old) (51.1%), on the other hand, those with multiple forms of abuse were more common in age group (31–40); the difference between groups were statistically significant (p < 0.000). All types of abuse were more prevalent among women who married at a younger age, and the difference between groups was statistically significant (p < 0.000). More than half of women in all four groups were illiterate; however, those subjected to emotional abuse tended to have a higher educational level. Women's occupation did not significantly affect the different types of abuse as did the husband's occupation. Husband's drug abuse (3.9%) was reported by women subjected to either physical abuse or multiple types of abuse but not in the other two groups. Women subjected to either physical abuse or multiple types of abuse reported more commonly that the family income was usually not enough; the

TABLE 2—Frequency of different behaviors of abuse (including	multiple
type) as reported by the studied women.	

	Present	Absent N (%)	
Ways of abuse	N (%)		
Emotional abuse			
Frightening/angry look	102 (13.2)	670 (86.7)	
Insulting abusive language	90 (11.7)	682 (88.3)	
Threatened by an object	68 (8.8)	704 (91.2)	
Total	51 (6.6)	721 (93.3)	
Physical abuse			
Hit and bit	230 (29.8)	542 (70.2)	
Slapped	224 (29)	548 (71)	
Hit with objects	64 (8.3)	708 (91.7)	
Pushed	58 (7.5)	714 (92.5)	
Punched	15 (1.9)	757 (92.1)	
Scaled/burnt	5 (0.6)	767 (99.4)	
Total	231 (29.9)	541 (70.1)	
Sexual abuse			
Denial of sex	52 (6.7)	720 (93.3)	
Coerced sex	24 (3.1)	748 (96.9)	
Causing sexual hurt/injury	11 (1.4)	761 (98.6)	
Total	60 (7.8)	712 (92.2)	

difference between groups was statistically significant (p < 0.003) (Table 3).

Further, multivariate logistic regressions were carried out to examine these associations, separately for each type of DV (Table 3). The emotional abuse has significant association with the women age and number of children. The association between occurrence of emotional abuse and the age was inversed, as occurrence of violence decreased with increasing the women age. Physical violence was significantly associated with the women age, age of marriage, and the family income. However, only age of marriage, number of children, and the husband drug abuse were significantly associated with the occurrence of sexual violence. Regression analysis for occurrence of multiple types of abuse revealed that age of marriage, number of children, and occupation and monthly family income were significantly associated.

Female Circumcision in the Studied Sample

Female circumcision was carried out to 92.2% of the studied females. It was carried out mainly by a midwife "Daya" (97.5%), at home (96.8%), and the accompanied person was the mother most of the time (96.8%). It caused organ disfigurement in 21.6%. Statistical analyses were performed to compare those who underwent circumcision and those how did not, and no differences between the two groups emerged as regards the presence of any type of abuse (Table 4).

Forensic Medical Examination

As regards the forensic medical external examination, it was found that the most prevalent type of recent wounds was the bruises (60.9%), while as for old wounds, scar of burn was the most common (7.6%). Joint displacement was found in 8.7%, crippling in 7.6%, and loss of teeth was detected in 4.3% (Table 5).

Psychiatric Disorders in the Sample

As regards psychiatric disorders in the sample 139 (18%) of the women included in the study had a psychiatric disorder. The most prevalent psychiatric disorder was panic disorder (65; 8.4%),

TABLE 3—Comparisons between women with different forms of abuse in sociodemographic variables.

	Emotional Abuse	Physical Abuse Sexual Abuse		Multiple Types of Abuse	
	N (%)	N (%)	N (%)	N (%)	Difference Between Groups (p)
Age					
16–20	0	11 (4.8)	5 (8.3)	2 (2)	0.000*
21-30	19 (37.5)	118 (51.1)	21 (35)	30 (29.7)	
31-40	11 (21.6)	63 (27.3)	17 (28.3)	49 (48.5)	
41-50	21 (41.2)	39 (16.9)	17 (28.3)	20 (19.8)	
OR* (95% CI)	0.3 (0.1-0.5)***	0.8 (0.6-1.1)*	0.8(0.5-1.3)	1.2 (0.7–1.9)	
Age at marriage					
16–20	38 (74.5)	162 (70.1)	56 (93.3)	47 (46.5)	0.000*
21–30	13 (25.5)	59 (25.5)	4 (6.7)	39 (38.5)	
31-40	0	10 (4.3)	0	14 (38.6)	
41–50	ů 0	0	0	1 (1)	
OR* (95% CI)	1.3 (0.7–2.5)	1.4 (0.9–2.1)*	0.3 (0.09–0.3)*	3.9 (2.4–6.4)***	
Women education	1.5 (0.7 2.5)	1.4 (0.9 2.1)	0.5 (0.05 0.5)	5.7 (2.4 0.4)	
Illiterate	26 (51)	117 (50.6)	35 (58.3)	60 (59.4)	0.000*
Read and write	4 (7.8)	20 (8.7)	6 (10)	17 (16.8)	0.000
Moderate education	11 (21.6)	85 (36.8)	17 (28.3)	20 (19.85)	
High education	10 (19.6)	9 (3.9)	2 (3.3)	4 (4)	
OR* (95% CI)	0.8 (0.5–1.4)	1.4 (1-2.007)	0.8 (0.5–1.3)	0.7 (0.5–1.2)	
Women occupation	0.8 (0.3–1.4)	1.4 (1–2.007)	0.8 (0.3–1.3)	0.7 (0.5–1.2)	
Housewife	45 (88.2)	223 (96.5)	54 (90)	96 (95)	0.1
Manual work	2 (3.9)	6 (2.6)	2 (3.3)	3 (3)	0.1
		1(0.4)			
Clerical work	2 (3.9)		2(3.3)	2 (2) 0	
Professional	2(3.9)	1 (0.4)	2(3.3)		
OR* (95% CI)	0.7 (0.3–1.3)	0.2 (0.1–0.6)**	1.1 (0.7–1.7)	0.5 (0.2–1.04)	
Husband education	1((21.4))	102 (44.2)	29(4(7))	49 (47 5)	0.008*
Illiterate	16 (31.4)	102 (44.2)	28 (46.7)	48 (47.5)	0.008*
Read and write	12 (23.5)	45 (19.5)	12 (20)	28 (27.7)	
Moderate education	15 (29.4)	77 (33.3)	15 (25)	19 (18.8)	
High education	8 (15.7)	7 (3)	5 (8.3)	6 (5.9)	
OR* (95% CI)	0.6 (0.3–1.3)	0.6 (0.4–0.8)	0.9 (0.6–1.6)	0.9 (0.6–1.3)	
Husband occupation	2 (5 05)	22 (10)	((10)	2 (2)	0.00
Not working	3 (5.95)	23 (10)	6 (10)	3 (3)	0.09
Manual work	27 (52.9)	122 (52.8)	30 (50)	41 (40.6)	
Clerical work	21 (41.2)	81 (35.1)	22 (36.7)	54 (53.5)	
Professional	0	5 (2.2)	2 (3.3)	3 (3)	
OR* (95% CI)	0.7 (0.4–1.2)	0.9 (0.7–1.3)	1.1 (0.6–1.9)	1.3 (0.8–2.03)	
Husband drug abuse			0		0.000 t
Yes	0	17 (7.4)	0	13 (12.9)	0.003*
No	51 (100)	214 (92.6)	60 (100)	88 (87.1)	
OR* (95% CI)	0.01 (0-4.5)	0 (0-3499.1)	2.4 (1.05–5.5)*	0 (0–9435.161)	
Number of children					
None	6 (11.8)	-27 (11.7)	0	-10 (9.9)	0.009*
1-2	20 (39.2)	77 (33.3)	27 (45)	22 (21.8)	
More than 2	25 (49)	127 (55)	33 (55)	69 (68.3)	
OR* (95% CI)	2.08 (1.1-3.8)**	1.1 (0.7–1.5)	0.9 (0.4–1.8)	1.9 (1.1–3.3)*	
Family income		· · · · · · ·			
Usually enough	9 (17.6)	62 (26.8)	22 (36.7)	28 (27.7)	0.003*
Sometimes not enough	33 (64.7)	91 (39.4)	30 (50)	42 (41.6)	
Usually not enough	9 (17.6)	78 (33.8)	8 (13.3)	31 (30.7)	
OR* (95% CI)	0.8 (0.5–1.3	2.5 (1.8-3.4)***	1.1 (0.6–2.02)	3.3 (2041–5478)***	
Total	51 (6.6)	231 (29.9)	60 (7.8)	101 (13.1)	

OR, odds ratio; CI, confidence interval.

p < 0.05, p < 0.01, p < 0.01, p < 0.001.

followed by major depressive disorder (62; 8%), dysthymic disorder (51; 6.6%), and finally generalized anxiety disorder (34; 4.4%). Women with any form of abuse had statistically significant higher prevalence of psychiatric disorders (p < 0.0001). When compared women with different types of abuse with each other, it was found that 37.6% of women with multiple types of abuse had a psychiatric disorder, while 27.3% of those with physical abuse showed a psychiatric disorder, 19.6% of women with emotional abuse showed the presence of psychiatric disorder, and finally 5% of those with sexual abuse had a psychiatric disorder. The difference between groups were statistically significant (p < 0.0001) (Table 6).

Discussion

In this study, not all women interviewed agreed to participate in the present study. Only 0.1% of all eligible women refused to participate in this study. The few women who did not participate may have done so because many women do not talk about their problems because they are afraid or ashamed to and feel the pressure of social stigma.

The present study showed significant relationship between age of woman and experiencing DV, this is in accordance with Yildizhan et al. (2) and Hegarty and Bush (9) and against Keeling and Birch (10). All forms of violence were significantly higher in illiterate

 TABLE 4—Distribution of female circumcision and related events among the studied sample.

	Present	Absent		
Female circumcision	712 (92.2%)	60 (7.8%)		
Sexual organ disfigurement	154 (21.6%)	558 (78.4%)		
Dyspareunia	283 (39.7%)	459 (64.5%)		
The place where circumcisions were carried out House 689 (96.8%) Clinic 10 (1.4%) Another place 13 (1.8%) The person who did the circumcision				
Doctor 18 (2.5%) Daya 694 (97.5%)				
The person who went with the women Mother 684 (96.8%) Grandmother 28 (3.9%)				

Mean circumcision age is 9.5 ± 2.2 .

 TABLE 5—Results of forensic external physical examination among the studied sample.

Type of Wound	Frequency	Percent	
Recent wound			
Bruises	56	60.9%	
Limb in cast	4	4.3%	
Burn	2	2.2%	
Old wound			
Scar of wound	4	4.3%	
Scar of burn	7	7.6%	
Physical injury			
Crippling	7	7.6%	
Joint displacement	8	8.7%	
Loss of teeth	4	4.3%	

and low-educated females (p < 0.05) than others; this finding is in accordance with Balci and Ayranci (11), O'Keefe (12), and De Iahunte and Tulsky (13). These findings indicated the importance of education to lower violence in the family. Similarly, the relationship between family's income level and violence was statistically significant (p < 0.001) in all forms of abuse, these findings are in accordance with Balci and Ayranci (11), Daly and Pelowski (14), and Hedin and Janson (15). Ruiz-Pérez et al. (16) found that physical and sexual abuse were more frequent in women with low income, and they explained that as women with higher income may not feel as dependent on their partners as do women with low income. Therefore, they may not feel the need to remain in the abusive relationship if their partners abuse them physically or sexually. Among the main factors which affect the type of violence was the number of children which was related to physical violence in the current study. This is in agreement with the study by Martin et al. (17) and that of Vatnar and Bjørkly (18) who found that motherhood increased the risk for longer duration of physical, psychological, and sexual abuse. This could be explained by the fact that the greater the number of children the greater the emotional and economic difficulties are. This may lead to increased tension inside the family paving the way for abuse to occur.

Regarding the role of husbands in all cases of DV toward married women, they were the perpetrators in the present study, which is in accordance with Ameh et al. (19). There was a significant relationship between illiteracy and manual work of the husband and emotional abuse against women in rural area in Egypt. However, a study by McGrath et al. (20) found that violence occurs from doctors to truck drivers, from ministers to teachers, and this difference could be attributed to the limited study group of this research to a rural area.

In the current study, we found that the prevalence of abuse among the studied women was 57.4%. This prevalence rate is similar to 52-54% reported among Palestinian women in the West bank and Gaza (21). However, this prevalence rate was higher than that found in Zambia (25.9%) (22) and that reported from Uganda (15%) (23). These differences might be due to methodological differences or cultural differences.

As regards the forensic physical examination in the present study, soft tissue lesions in the form of bruises were 60.9% of all the injuries. Another study in Turkey showed that the incidence of soft tissue lesions was 92% in various dimensions and characters (11). Wu (24) reported that most of abused women in China did not suffer severe harm or permanent injury, which was ignored by the public as it does not cause obvious injury.

Sexual abuse is unlikely to be visible; however, it has the potential not only to harm physical health, but also to impact women's health. The prevalence of sexual abuse in our study was 7.8%, this contradicts the findings of Wu et al. (25) who found that sexual violence is the most common type of abuse; this difference could be explained by the fact that actual prevalence might be influenced by the reluctance of some participant to disclose such a sensitive issue to someone outside the family. Wu et al. (25) postulated that women might fear that they would not be able to acquire any help after disclosing such a delicate issue to authorities and they added that the interviewers might have been perceived as authority figures. Cultural differences might play a role in the prevalence of such type of abuse.

A highly significant association was found between physical and sexual abuse (p < 0.0001), which agrees with Gracia-Moreno et al.

TABLE 6—Comparison between different modalities of abuse in relation to psychiatric disorders.

	Emotional Abuse (51)	Physical Abuse (231)	Sexual Abuse (60)	Multiple Types of Abuse (101)	Difference Between	Any Abuse (443)	No Abuse (329)	Difference Between
Whole Sample (772)	N (%)	N (%)	N (%) N (%)	N (%)	Groups (p)	N (%)	N (%)	Groups (p)
Depression 62 (8%)	3 (5.9)	29 (12.5)	1 (1.7)	14 (13.9)	0.04*	47 (10.7)	15 (4.6)	0.009*
Dysthymia 51 (6.6%)	8 (15.7)	20 (8.7)	2 (3.3)	14 (13.9)	0.07	44 (9.9)	7 (2.1)	0.000*
Panic 65 (8.4%)	5 (9.8)	22 (9.8)	2 (3.3)	17 (16.8)	0.04*	46 (10.4)	19 (5.8)	0.02*
GAD 34 (4.4%)	1 (2)	21 (9.1)	- (-)	11 (10.9)	0.02*	33 (7.4)	1 (0.3)	0.000*
Any disorder 139 (18%)	10 (19.6)	63 (27.3)	3 (5)	38 (37.6)	0.000*	114 (25.7)	25 (7.6)	0.000*

GAD, generalized anxiety disorder.

Any abuse: psychiatric disorders with any type of abuse.

No abuse: psychiatric disorders without abuse.

*p < 0.05 is significant.

(26) who reported that considerable overlap was noted between experiences of sexual and physical partner abuse with 20–50% of women in most sites having experienced both kinds of violence: consequently, the specific effect of these types of violence by itself was difficult to establish. Similarly, the relationship between physical and emotional abuse was found to be significant. This result is in agree with Naeem et al. (27) who reported, in their review, several studies in Pakistan confirming the association between physical violence and psychiatric symptoms.

Female genital circumcision remains a widely practiced custom in our society. Grave complications may last throughout women's life, particularly at the time of consummation of marriage and childbirth (28). In this study, prevalence of female circumcision was 92.2%, performed mainly by midwives (Dava) (97.5%), and the mean circumcision age was 9.5 ± 2.2 years. These results were in line with Tag-Eldin et al. (29) and Hassanin et al. (30). In circumcised females, genital organ disfigurement was found in 21.6% as a complication of circumcision. Dyspareunia was reported in 39.7% of circumcised females. This is in line with El-nashar and Abdelhady (28) who reported that dysmenorrhea, dyspareunia, failure of orgasm, and husband dissatisfaction were more common among circumcised females. However, the previously mentioned study reported increased marital problems and physical abuse among circumcised females, but in our study, there was no difference between circumcised and noncircumcised females in the prevalence in any form of abuse. In Egypt, female circumcision is mainly performed by excision of the clitoris and the labia minor (29).

In this study, psychiatric disorders occurred more commonly in women with abuse. This finding coincide with Fogarty et al. (31) who found, in a large U.S.A. sample, that 55% of women exposed to intimate partner violence (IPV) have depressive symptoms. Our results are also consistent with previous studies of IPV (32-36). In the same line, Roberts et al. (37) reported that women who had lifetime adult intimate abuse received significantly more diagnosis of generalized anxiety, dysthymia, depression, and phobias than those who reported no abuse ever. In the current study, women with multiple types of abuse showed the highest prevalence of psychiatric disorders. The frequency and multiplicity of interpersonal victimization have been associated in numerous studies with greater levels of psychological distress (38-40). On the other hand, women who were abused sexually by their husbands showed low levels of psychopathology. This is in contrast to several studies which reported high levels of psychiatric disorders in women with sexual abuse. However, these studies mostly included sexual abuse outside marital context (41). Coid et al. (42) reported that DV was associated with a wider range of mental health measures than any other abusive experience; in their study, DV had a stronger association than rape with anxiety and depression.

Conclusion and Recommendation

In conclusion, DV is a serious public health problem in Egypt especially in rural areas. Physical abuse was the most common type of DV. Husband's drug abuse, economic reasons, low education, and great number of children were frequently associated with women abuse in this research. DV in Egypt with all forms has many negative effects on women's physical, sexual, and psychological health. So, it is recommended:

 More studies to disclose the extent of the problem and factors affecting it.

- Additional work is needed to understand the gender relationships and dynamics in the Egyptian society and to be able to address DV effectively.
- Develop a screening tool to assess the risks of each female patient.
- Give this issue its real importance in front Forensic Medicine Council in Egypt.
- Development and evaluation of different psychological interventions are necessary to offer the psychological support needed by the abused women.

References

- Leug TW, Leung WC, Chan PL. A comparison of the prevalence of domestic violence between patients seeking termination of pregnancy and other general gynecology patients. Int J Gynecol Obstet 2002;77:47–54.
- Yildizhan R, Adali E, Kolusari A, Kurdoglu M, Yildizha B, Sahin G. Domestic violence against infertile women in Turkish setting. Int J Gynecol Obstet 2009;104:110–2.
- Petersen R, Gazmararian J, Andersen Clark K. Partner violence: implications for health and community settings. Women's Health Issues 2001;11:116–25.
- Ellsberg M, Jansen H, Heise L, Walts C. Moreno C. Intimate partner violence and violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: an observational study. Lancet 2008;371:1165–72.
- Patel V, Krikwood BR, Pednekar S, Pereira B, Barros P, Fernandes J, et al. Gender disadvantage and reproductive health risk factors for common mental disorders in women: a community survey in India. Arch Gen Psychiatry 2006;63:404–13.
- Bonomi AE, Thompson RS, Anderson M, Reid RJ, Carrell D, Dimer JA, et al. Intimate partner violence and women's physical, mental, and social functioning. Am Prev Med 2006;30:458–66.
- WHO. WHO multi-country study on women's health and life events. Final Core Questionnaire (version 10). Geneva, Switzerland: World Health Organization, 2003.
- Spitzer RL, Williams JB, Gibbon M, First MB. The structured clinical interview for DSM-III-R (SCID), I: history, rationale, and description. Arch Gen Psychiatry 1992;49:624–9.
- Hegarty KL, Bush R. Prevalence and association of partner abuse in women attending general practice: across-sectional survey. Aust NZJ Public Health 2002;26(5):437–42.
- Keeling G, Birch L. The prevalence rates of domestic abuse in women attending a family planning clinic. J Fam Plann Reprod Health Care 2004;30(2):113–4.
- Balci YG, Ayranci U. Physical violence against women: evaluation of women assaulted by spouses. J Clin Forensic Med 2005;12:258–63.
- O'Keefe M. Racial/ethnic difference among battered women and their children. J Child Fam Stud 1994;3(3):283–305.
- De Iahunte EA, Tulsky AA. Personal exposure of faculty and students to family violence. JAMA 1996;275:1903–6.
- Daly JE, Pelowski S. Predictors of dropout among men who batter: a review of studies with implications for research and practice. Violence Vict 2000;15(2):137–60.
- Hedin LW, Janson PO. Domestic violence during pregnancy—the prevalence of physical injuries, substance use, abortion and miscarriages. Acta Obstet Gynecol Scand 2000;79(8):625–30.
- Ruiz-Pérez I, Plazaola-Castano J, Alvarez-Kindlan M, Arnalte-Barrera M, Bonet-Pla A, Santiago-Hernando ML, et al. Sociodemographic associations of physical, emotional, and sexual intimate partner violence in Spanish women. Ann Epidemiol 2006;16:357–63.
- Martin SL, Moracco KE, Garo J, Tsui AO, Kupper LL, Chase JL, et al. Domestic violence across generations: findings from northern India. Int J Epidemiol 2002;31:560–72.
- Vatnar SB, Bjørkly S. Does it make any difference if she is a mother? An interactional perspective on intimate partner violence with a focus on motherhood and pregnancy. J Interpers Violence 2010;25(1):94–110.
- Ameh N, Kene TS, Onuh SO, Okohue JE, Umeora DU, Anozie OB. Burden of domestic violence amongst infertile women attending infertility clinics in Nigeria. Niger J Med 2007;16(4):375–7.
- McGrath ME, Hogan JW, Peipert JF. A prevalence survey of abuse and screening for abuse in urgent care patients. Obstet Gynecol 1998;91(4): 511–4.

- Haj-Yahia MM. The incidence of wife abuse and battering and some sociodemographic correlates as revealed by two national surveys in Palestinian society. J Fam Violence 2000;14(4):347–74.
- 22. Central Statistics Office [Zambia], Central Board of Health [Zambia], and ORC Marco. Zambia demographic and health survey 2001–2002. Calverton, Maryland: Central Statistics Office, Central Board of Health and ORC Marco, 2000.
- Koenig M, Lutalo A, Zhao F, Nalugoda F, Wabwire-Mamgen F, Kiwanuka N, et al. Domestic violence in rural Uganda: evidence from a community-based study. Bull World Health Organ 2003;81(1):53–60.
- 24. Wu C. Summarization of domestic violence study. In: England Cultural Committee, editor. China Law Society, institution of marriage and family in China People University. Research on domestic violence prevention. Beijing, China: Mass Press, 2000;13–6.
- Wu J, Guo S, Qu C. Domestic violence against women seeking induced abortion in China. Contraception 2005;72:117–21.
- Gracia-Moreno C, Jansen HA, Elsberg M, Heise L, Watts CH. Prevalence of intimate partner violence: findings from the WHO multi country study on women's health and domestic violence. Lancet 2006;368:1260–9.
- Naeem F, Irfan M, Zaidi QA, Kingdon D, Ayub M. Angry wives, abusive husbands: relationship between domestic violence and psychosocial variables. Women's Health Issues 2008;18:453–62.
- Elnashar A, Abdelhady R. The impact of female genital cutting on health of newly married women. Int J Gynecol Obstet 2007;3:238–44.
- Tag-Eldin MA, Gadallah MA, Al-Tayeb MN, Abdel-Aty M, Mansour E, Sallem M. Prevalence of female genital cutting among Egyptian girls. Bull World Health Organ 2008;86(4):269–74.
- Hassanin IM, Saleh R, Bedaiwy AA, Peterson RS, Bedaiwy MA. Prevalence of female genital cutting in Upper Egypt: 6 years after enforcement of prohibition law. Reprod Biomed Online 2008;1:27–31.
- Fogarty CT, Fredman L, Heeren TC, Liebschutz J. Synergistic effects of child abuse and intimate partner violence on depressive symptoms in women. Prev Med 2008;46:463–9.
- Thompson KM, Crosby RD, Wonderlich SA, Mitchell JE, Redlin J, Demuth G, et al. Psychopathology and sexual trauma in childhood and adulthood. J Trauma Stress 2003;16:35–8.

- Bensley L, Van Eenwyk J, Wynkoop Simmons K. Childhood family violence history and women's risk for intimate partner violence and poor health. Am J Prev Med 2003;25:38–44.
- 34. Coker AL, Davis KE, Arias I, Desai S, Sanderson M, Brandt HM, et al. Physical and mental health effects of intimate partner violence for men and women. Am J Prev Med 2002;23:260–8.
- Coker AL, Smith PH, Bethea L, King MR, McKeown RE. Physical health consequences of physical and psychological intimate partner violence. Arch Fam Med 2000;9:451–7.
- Golding J. Intimate partner violence as a risk factor for mental disorders: a meta-analysis. J Fam Violence 1999;14:99–132.
- Roberts GL, Williams GM, Lawerence JM, Raphael B. The impact of domestic violence on women's mental health. Aust NZJ Public Health 1998;22(7):796–801.
- Jordan CE, Nietzel MT, Walker R, Logan TK. Intimate partner violence: a clinical training guide for mental health professionals. New York, NY: Springer, 2004.
- Kaysen D, Resick PA, Wise D. Living in danger: the impact of chronic traumatization and the traumatic context on posttraumatic stress disorder. Trauma Violence Abuse 2004;4:247–64.
- Blaauw E, Winkel FW, Arensman E, Sheriden LP, Freeve A. The toll of stalking: the relationship between features of stalking and psychopathology of victims. J Interpers Violence 2002;17:50–63.
- Vung ND, Ostergren P, Krantz G. Intimate partner violence against women, health effects and health care seeking in rural Vietnam. Eur J Public Health 2009;219(2):178–82.
- Coid J, Petruckitch A, Chung WS. Abusive experiences and psychiatric morbidity in women primary care attenders. Br J Psychiatry 2003;183: 332–9.

Additional information and reprint requests: Irene Atef Fawzy, M.D. Forensic Medicine and Toxicology Department Faculty of Medicine Minia University Egypt E-mail: ireneatef@yahoo.com