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PTSD, Depression, and Anxiety among Palestinian Women Victims of Domestic Violence in the Gaza Strip

A. A. Thabet[1*], Ahmad Abu Tawahina[2], Tischler Victoria[3] and Panos Vostanis[4]

[1]Department of Child and Adolescent Psychiatry, Al-Quds University, School of Public Health, Child Institute-Gaza, Palestine.
[2]Gaza Community Mental Health Program, Gaza, El Rasheed Street, Palestine.
[3]Department of Behavioural Sciences, Faculty of Medicine and Health Sciences, University of Nottingham, UK.
[4]Department of Child Psychiatry, School of Medicine- Greenwood Institute of Child Health, School of Psychology Westcotes House, Westcotes Drive, Leicester LE3 OQU, UK.

Authors' contributions

This work was carried out in collaboration between all authors. Authors A. A. Thabet and AAT designed the study, wrote the protocol. Authors A. A. Thabet, AAT, TV and PV wrote the first draft of the manuscript. Authors A. A. Thabet, AAT, TV and PV managed the literature searches. Authors A. A. Thabet, TV and PV analyses of the study performed the spectroscopy analysis and wrote the final draft. All authors read and approved the final manuscript.

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ABSTRACT

Background: Domestic violence is a universal phenomenon which affects all family members and specially children and women. Common reactions to domestic violence are post-traumatic stress disorder, depression, and anxiety.

**Corresponding author: E-mail: abdelazizt@hotmail.com;*

Aims: The aim of this study is to find type and severity of domestic violence against Palestinian women in the Gaza Strip, and to investigate whether it is associated with mental health problems such as post-traumatic stress disorder, depression, and anxiety.
Methods: The study sample included 622 Palestinian women randomly selected from the five areas of the Gaza Strip aged from 18 to 50 years (mean age = 31.5 years). They were interviewed using questionnaires including Sociodemogrophic variables, Conflicts Tactics Scale, post-traumatic stress disorder scale, Beck Depression Inventory, Taylor manifestation Anxiety Scale.
Results: The study showed that psychological assault was 56.91%, physical assault 37.3%, physical injury 12.06%, and sexual assault was 7.14%.
The study showed that domestic violence was significantly higher in women living in villages than in cities or camps. Also, women living in villages experienced more psychological abuse than women living in cities or camps.
The study showed that 71 women (11.4%) had been diagnosed as post-traumatic stress disorder, 15% had moderate to severe depression, and 29.9% had very severe anxiety.
The study showed that psychological assault toward women was positively correlated to depression, anxiety, and posttraumatic stress disorder. Also, there were significant positive relationships between physical assault and depression, anxiety, and posttraumatic stress symptoms. Physical injury and sexual assault were significantly positively related to post traumatic stress disorder, depression, and anxiety.
Conclusion: The study showed that one third Palestinian women exposed to physical violence and half of them exposed to psychological violence which lead to post-traumatic stress disorder depression, and anxiety. So, a great need for more programs for women victims of domestic violence in Palestinian society are needed with well trained professionals in the field of psychological support and therapy. More specific programs should be established in Gaza to enable women of using new coping strategies with difficulties. Also, training programs including primary health care professional such physicians, nurses, social service experts, and midwives should be provide to enable them of early detection of victims of violence and provide social support to these women.

Keywords: Anxiety; depression; domestic violence; Palestinian women; PTSD.

1. INTRODUCTION

Gaza Strip is a narrow piece of land lying on the coast of the Mediterranean sea. Its position on the crossroads from Africa to Asia made it a target for occupiers and conquerors over the centuries. Gaza Strip is very crowded place with area 365 sq. Km and constitute 6.1% of total area of Palestinian territory land. The Gaza Strip is home to a population of more than 1.76 million people, including 1.26 million Palestine refugees. For the last decade, the socioeconomic situation in Gaza has been in steady decline. Years of conflict and closure have left 80 per cent of the population dependent on international assistance. The tightened blockade, imposed following the Hamas takeover of Gaza in June 2007, has decimated lives and livelihoods, resulting in the impoverishment and de-development of a highly skilled and well-educated society. Despite adjustments made to the blockade by the Government of Israel in June 2010, restrictions on imports and exports continue to severely hamper recovery and reconstruction. Over half a million Palestine refugees in Gaza live in the eight recognized Palestine refugee camps, which have one of the highest population densities in the world. That camps contain two thirds of the population of Gaza Strip who had been uprooted from their lands in 1948. Gaza Strip is composed of five provinces: North Gaza, Gaza city, Middle area, Khan Younis and Rafah [1].

The World Health Organization (WHO) defines violence as “the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation” [2].

Others, refers domestic violence to a pattern of physical, sexual, and/or psychological behaviors perpetrated by a current or former intimate partner [3].

The WHO study called “Women's Health and Domestic Violence against Women” surveyed 10 countries and 24,000 women and showed prevalence of domestic violence. Physical

violence from their partners was reported in 23–49% of those women, and sexual violence was reported in 10–50% of them [4].

Other studies of domestic violence in non-Western contexts suggest that traditional norms may still exert an influence on the status of women. For example, a study of Sri Lankan medical students [5] and Jordanian men [6] revealed that strong patriarchal beliefs were used to justify violence against women. A previous study involving Palestinian women found that 13-69% strongly agreed that wife beating was justified under certain circumstances, for example, when a wife was sexually unfaithful [7].

Sociodemographic variables such as younger age and limited decision-making power are significant predictors of both physical and psychological abuse of single, never-married Palestinian women; religion was found to be significant for psychological abuse alone [8].

A number of previous studies have examined the incidence of domestic violence and attitudes towards male to female spousal abuse in Arabic countries and Islamic cultures. In a reported the results of two national surveys of married Palestinian woman living in the West Bank and Gaza strip. Living in rural areas and camps, poverty, unemployment, being a Muslim, husbands has a low level of education and women having a higher educational level than their husbands were factors predicted domestic violence in women [6]. In Syria, 26% of married women reported at least three instances of abuse during the year, while weekly battering occurred among 3.3% of married women [9]. Similarly, Bedouin Arab women in Israel have a 48% lifetime exposure rate to violence in their families [10]. Another, family public health survey from Iraq documented that 83.1% of women reporting at least one form of marital control. Overall, younger married women were the most likely to report restrictions; 74.5% of those aged 15 to 24 years reported having to ask permission to seek health care, compared to 60.3% of those aged 40 to 49 years. As for emotional or psychological violence, 33.4% of women reported at least one form of violence and 21.2% of women experienced physical violence [11].

In 2006, the Palestinian Central Bureau of Statistics (PCBS) conducted a Domestic Violence Survey examining instances of abuse among ever-married women; single, never-married women over 18 years; children; and the elderly [12]. For ever-married women, it was found that 23.3% suffered physical abuse from their husbands, 61.7% psychological abuse, and 10.9% sexual abuse at least once during the year 2005. There were higher rates of all forms of abuse in the West Bank compared to the Gaza Strip. For single, never-married women the rates were found to be 25% for physical abuse and 52.7% for psychological abuse experienced at least once during the year 2005. Similar to their ever-married counterparts, the West Bank had higher rates of abuse than the Gaza Strip.

In Saudi Arabia, it was revealed that 30% of male respondents had been violent toward a female family member, with female misbehavior cited as the main reason for the abuse, in addition to disapproval over dress and conduct for unmarried women. The most likely targets of such violence were, in order of likelihood, sisters, mothers, sisters-in-law, aunts, and wives [13]. In a study of Qatari female students, 80% of whom were single never-married women, it was found that 39% were abused by their brothers, 38% by their fathers, and 22% reported abuse from their mothers [14].

National research on violence against women in Turkey revealed 39% of women were physically and 15% sexually abused by their partner, whereas 18% were physically and 3% were sexually abused by a non-partner. The same research noted that the most common perpetrators in non-partner abuse were fathers (42%), mothers (32%), and brothers (16%) [15]. The data from the Spanish Women's Institute report that 10% of women above the age of 18 have been exposed to intimate-partner violence [16].

In study were conducted with 96 women recruited from community health clinics serving low-income women in an urban U.S. city showed that all women had experienced some type of physical violence in the past year based on the eligibility criteria, most women experienced severe physical or sexual IPV in the past year (88.5%). In the past 6 months, 22% of women experienced no IPV or psychological IPV only, while 16% experienced minor physical or sexual intimate-partner violence and 62.5% experienced severe physical or sexual IPV. Fifty two percent of women were experiencing intimate-partner violence from their current partner, while 48% were experiencing IPV from a former partner [17].

In another study of community sample of 4,114 in Bangladesh women of age 15 to 49 years having

at least one child, more than half of the women (53.9%) were found to be exposed to IPV [18].

There is overwhelming evidence that intimate partner violence (IPV) is a major contributor to the ill-health of its women survivors. For example, an extensive review of the literature found that IPV posed a significant risk to women's physical health, including increased mortality, injury, disability, chronic pain. In a Taiwanese study of 109 abused women found that the medium- and high-risk groups for life-threatening situations accounted for 82.6% of all subjects, and 93.6% of all subjects were in a high score Yahia group of post-traumatic responses Among the 10 symptom dimensions of psycho-physiological symptoms, anxiety had the highest standardized mean score, followed by obsession, depression, and somatization. The life-threatening situations had significant positive correlation with the overall post-traumatic responses, the responses of intrusion, and the general severity index (GSI). Overall post-traumatic responses, intrusion, and avoidance were all positively associated with GSI [19].

Experience of domestic violence is associated with numerous deleterious effects on mental, social and emotional wellbeing. For example, it is associated with posttraumatic stress disorder (PTSD) [20,21], anxiety, gynaecological and digestive disorders [22], and depression [23], low self-esteem [24]. The experience of domestic violence is associated with a number of demographic factors such as poverty [25].

Studies have demonstrated that living with a violent intimate male partner is harmful to the psychological conditions of the victimized women. Mental health consequences of exposure to domestic violence against women commonly include depression, posttraumatic stress disorder (PTSD), anxiety, suicidal behavior, abuse of alcohol and/or other substances, and personality disorders [26-34].

The aim of this study is to find type and severity of domestic violence against Palestinian women in the Gaza Strip, and to investigate whether it is associated with mental health problems such as post-traumatic stress disorder, depression, and anxiety.

2. METHODS

2.1 Participants

The study sample included 622 Palestinian women randomly selected from the five areas of the Gaza Strip aged from 18 to 50 years. We selected the sample according to the population density of the Gaza Strip. We gave the data collectors the total number of women from each area (Gaza Strip is divided in to 5 areas). Each Data collector had the exact number of women to be interviewed. From Each area one street was chosen and every other home was entered and the women were informed about the purpose of the study and signed a consent form and were told that the information will kept confidential with the researcher co do the interview. Data collection was done by a will trained group of 10 community health workers. Data was collected in July to September 2009.

These workers were based in the (Women Empowerment Project'-WEP). Women Empowerment Project had three centers one in Gaza City, Middle area, and South of Gaza- It is a part of (Gaza Community Mental Health-CMHP).

2.2 Measures

2.2.1 Socio demographic scale

Sociodemographic data were collected on the women's socio-demographic characteristics, including age, number of children, place of residence, education, marital status, occupational status, and, if married, and husband's occupation.

2.2.2 Revised conflict tactics scale [34]

Conflict Tactics Scale included subscales measuring physical, sexual, and psychological, and injury due to domestic violence. A previous version of the CTS was used for a study on domestic violence in the Palestinian territories [6]. This self-report instrument measures the frequency of physical abuse, verbal violence, sexual violence, reasoning tactics, and injury within an intimate relationship. Participants were asked to report the frequency with which they performed the various behavioral conflict resolution tactics in the previous year. Specifically, 12 items from the Physical Assault subscale, 8 items from the Psychological Aggression subscale, 3 items from the Sexual Coercion subscale, and 6 items from the Injury subscale were used to measure intimate partner physical assault, psychological abuse, and sexual coercion. Participants were asked to report on the frequency of each of the abusive acts occurring in a partner conflict situation over

the past year using a 7-point scale, with the following response options: 0 = never, 1 = once, 2 = twice, 3 = 3 to 5 times, 4 = 6 to 10 times, 5 = 11 to 20 times, and 6 = more than 20 times. The total scores for each subscale were calculated by adding up the midpoints of the response categories for each item (e.g., the midpoint for the 6 to 10 times response was 8). In this study, the Cronbach's alpha coefficient was .92 for the Physical Assault subscale, .88 for the Psychological Aggression subscale, .89 for the Sexual Coercion subscale, and .88 for the Injury subscale.

2.2.3 Posttraumatic stress disorder checklist [35]

This checklist contains 17 items adapted from the DSM-IV PTSD symptom criteria. The 17 PTSD symptoms are rated by the participant for the previous month on a scale indicating the degree to which the respondent was bothered by a particular symptom from 1 (not at all) to 5 (extremely). Items can be categorized as follows: items 1-4, 17 are for criteria B (intrusive re-experiencing); items 5-11 are for criteria C) avoidance and numbness); and items 12-16 are for criteria D (hyperarousal). Respondents are asked to rate on a 5-point Likert scale (1 = not at all to 5 = extremely) the extent to which symptoms troubled them in the previous month. Using the recommended Posttraumatic Stress Disorder Checklist cutoff score of 50, Blanchard found cut of point of 44 [35]. Previous research has suggested using as a minimum sum either a score of 3 or 4 on a symptom for it to count as positive towards the diagnosis. This scale was used in previous studies and showed high reliability and validity [36]. In this study, the Cronbach's alpha coefficient was high and acceptable .91.

2.2.4 The taylor manifestation anxiety scale (TMAS) [37]

Taylor developed one of the first measures of chronic, manifest anxiety, Taylor's Manifest Anxiety Scale (MAS). Taylor's scale consisted of items selected from the Minnesota Multiphase Personality Inventory. We used the Arabic version with 50 items and answer is "Yes= 1" or "No= 0. The score ranged from (0- 16 no anxiety), (17- 20 Mild anxiety), (21- 26 moderate anxiety), and (27- 29 severe anxiety), and (30-50 very severe anxiety). 30 In this study, the Cronbach's alpha coefficient was high and acceptable .79.

2.2.5 Beck depression inventory [38]

The long form of the BDI is composed of 21 questions or items, each with four possible responses. Each response is assigned a score ranging from zero to three (0, 1, 2, 3), indicating the severity of the symptom. Individual questions of the BDI -2 assess mood, pessimism, sense of failure, self-dissatisfaction, guilt, punishment, self-dislike, self-accusation, suicidal ideas, crying, irritability, social withdrawal, body image, work difficulties, insomnia, fatigue, appetite, weight loss, bodily preoccupation, and loss of libido. Items 1 to 13 assess symptoms that are psychological in nature, while items 14 to 21 assess more physical symptoms. The scores of the BDI-2 were, where a score ‹ 20 = no depression, 21-31= mild depression, 32-41 = moderate depression, and 42 and above = severe depression. The Arabic version of the scale was used in the current study [39]. We calculated the reliability of the Beck Depression Inventory by using alpha Chronbach = 0.77.

2.3 Statistical Analysis

Data analyses were performed using SPSS Version 18 (SPSS, Inc. Chicago, United States). The frequencies of categorical data are presented. Established cut-off scores were used to provide rates of likely PTSD, depression, and anxiety. The relationship between domestic violence, demographic variables, PTSD, depression, and anxiety was investigated using the Spearman correlation test, as the continuous scores were not normally distributed. Differences in mean scores for violence exposure, mental health problems and sociodemographic variables were tested using one way ANOVA.

Multivariate linear regression analyses were performed to determine predictors of total anxiety, PTSD, and depression scores by types of violence experienced.

3. RESULTS

3.1 Sociodemographic Characteristics

The selected sample included 622 Palestinian women. Mean age was 30.61 years (SD = 8.9). Most of women were married (64.1%). 22% were single, 8.8% were divorced and 5% were widowed. Almost 40% of women had finished secondary education, 10.8% had completed a diploma, and 20.7% had university degrees. The

majority (60.6%) lived in cities, 24.4% lived in refugee camps, and 15% lived in villages. For those women who were married, 68% of their husbands had finished secondary education. 11.8% had completed a high diploma, and 19.4% had university degrees. Eighty-eight percent of women were housewives, 2.4% were simple workers, and 9.3% were employees. Nearly 45% of women had 8 or more children, 33. 9% had 5-7 children, and 21.1% had 4 and less children. Almost two-thirds of the women were living on an average monthly family income of less than 270 US, 22.8% on less than $450 US and 11.6% were earning $451 or more (see Table 1).

Table 1. Sociodemographic characteristics of the study sample (N = 662)

Mean age of women in years	**Mean age =30.61, SD = 8.9**	
Marital status	**No**	**%**
Single	137	22.0
Married	399	64.1
Divorced	55	8.8
Widowed	31	5.0
Type of residence		
City	377	60.6
Camp	152	24.4
Village	93	15.0
Women education		
Illiterate	15	2.4
Elementary	51	8.2
Primary	123	19.8
Secondary	233	37.5
Diploma	67	10.8
University	129	20.7
High diploma	3	.5
High education	1	.2
Place of residence		
North Gaza	134	21.5
Gaza	199	32.0
Middle area	95	15.3
Khan Younis	118	19.0
Rafah	76	12.2
Women job		
House wife	549	88.3
Simple worker	15	2.4
Employee	58	9.3
No of children		
4 children and less	131	21.1
5-7 children	211	33.9
8 and more children	280	45.0
Family monthly income		
Less than US$ 270	408	65.6
US$ 271- 450	142	22.8
US$ 451-700	53	8.5
More than US$ 701	19	3.1

3.2 Means, Standard Deviation, and Percentage of Domestic Violence

The study showed that psychological assault was 56.91%, physical assault 37.3%, physical injury was 12.06%, and sexual assault was 7.14% (see Table 2).

3.2.1 Sociodemographic variables and domestic violence

In order to investigate the differences in violence and socioeconomic variables such as age, type of residence, education, place of residence, marital status, number of children, and monthly family income, a One way ANOVA test was performed in which each of the demographic variable was entered as independent variables and means of violence including subscales as dependent variable.

Age was recorded in three categories (18-29 years, 30-39 years, and 40-50 years). There were no statistically significant differences in exposure to all subscales of domestic violence between these age groups, or according to monthly family income, educational level of participants and occupational status. According to place of residence (village, city, and camp), post hoc tests revealed that total domestic violence was significantly higher in women living in villages than in cities or camps that women living in villages experienced more psychological abuse than women living in cities or camps ($F= 4.56$, $p = 0.01$)

Table 2. Means, standard deviation, and percentage of domestic violence

Items	**Mean**	**SD**	**%**
Psychological assault	16.34	14.90	56.91
Physical assault	15.18	19.74	37.3
Physical injury	5.91	9.60	12.06
Sexual assault	1.5	4.31	7.14

3.3 Post Traumatic Stress Symptoms in Women

Our results showed mean score for the post-traumatic stress disorder was 34.33 (SD= 12.62), with subscale mean scores of 9.96 (SD = 4.4) for intrusion, 14.10 (SD = 5.52 for avoidance, and 10.26 (SD = 4.41) for hyperarousal. Using the established cutoff point of 50 on the PCL, 71 women (11.4%) met the criteria for a diagnosis of post-traumatic stress disorder.

In order to investigate differences in post-traumatic stress disorder scores according to socioeconomic variables such as age, type of residence, education, place of residence, marital status, number of children, and monthly family income, a One way ANOVA test was performed. Each of the demographic variables was entered as the independent variable and the PCL mean scores were entered as dependent variables. Women who were single, divorced, or widowed had higher post-traumatic stress disorder scores than women who were married (F=6.9, p = 0.001). Women living in cities had higher PTSD scores than those living in camps or villages (F= 5.66, p= 0.004). There were no significant differences in levels of post-traumatic stress disorder between groups according to monthly family income or educational level of women.

Linear regression analyses were performed to determine predictors of total post-traumatic stress disorder scores by types of violence experienced. The following subscale items were found to predict post-traumatic stress disorder: He insulted me (B = 0.15, p = 0.002), I passed out from being hit on the head by him (B = 0.15, p = 0.002), I stomped out of the room or yard (B = 0.15, p = 0.001), he pushed or shoved me (B = 0.14, p = 0.001), he did something to spite me (B = 0.14, p = 0.001), he burned or scalded me(B = 0.11, p = 0.01), I needed to go to the doctor because of the fight, but he did not (B = 0.11, p = 0.01).

3.4 Anxiety in Women

The mean score for anxiety was 25.11 (SD = 9.57). Using the established anxiety cut off scores: 15.6% had no anxiety, 11.3 had mild anxiety, 25.9% had moderate anxiety, 17.4% had severe anxiety, and 29.9% had very severe anxiety.

A One way ANOVA test was performed in which each of the demographic variables were entered as independent variables with the mean scores for anxiety as dependent variables. Women who were single were more anxious than women who were married (F= 5.4, p = 0.001). No differences in reported anxiety were established between type of residence, educational level and monthly income.

Linear regression analyses were performed to determine predictors of total anxiety scores by types of violence experienced. The following subscale items were found to predict anxiety, I felt physical pain that still hurt the next day because of the fight we had (B = 0.19, p = 0.001), he did something to spite me (B = 0.15, p = 0.004), he accused me of being a lousy lover (B = 0.12, p = 0.01), I stomped out of the room or yard (B = .09, p = 0.04).

3.5 Depression in Women

Depressive symptoms reported ranged from 0, which equated to no symptoms, to 57 symptoms, with a mean depression score of 18.50 (SD = 11.57).

Using the established cutoff score on the BDI-II (Gareeb, 2000) where a score ‹ 20 = no depression, 21-31= mild depression, 32-41 = moderate depression, and 42 and

Table 3. Linear regression analysis of total post-traumatic stress disorder and each of the violence items

	Unstandardized coefficients		Standardized coefficients	t	p	95.0% confidence interval for B	
	B	Std. error	Beta			Lower bound	Upper bound
He insulted me	.69	.22	.15	3.21	.001	.27	1.12
I passed out from being hit on the head by him	1.01	.30	.15	3.41	.001	.43	1.59
I stomped out of the room or yard.	.73	.20	.15	3.57	.001	.33	1.13
He pushed or shoved me.	.73	.22	.14	3.26	.001	.29	1.17
He did something to spite me.	.64	.21	.14	3.07	.001	.23	1.05
He burned or scalded me.	-.85	.31	.11	-2.72	.01	-1.47	-.24
I needed to go to the doctor because of the fight, but he did not	.74	.28	.11	2.61	.01	.18	1.30

R^2 = 0.31, Std. error of the estimate = 10.49

above = severe depression, 57.5% of participants reported no depression, 27.5% had mild, 12.9% had moderate, and 2.1% reported severe depression.

One way ANOVA was performed in which depression total scores were entered as the dependent variable and sociodemographic variables were entered as independent variables. Women who were single reported more depression than those who were divorced, widowed, or married (F=8.5, p = 0.001). No other significant differences were found in depression scores and other sociodemographic variables.

In order to investigate which types of violence may predict depression scores, a linear regression analysis was performed. Total depression (BDI-II) scores were entered as the dependent variable and each of the violence items entered as independent variables. The following subscale violence items predicted depressive symptoms in women: Minor psychological aggression: 'he insulted or swore at me' (B= 0.15, p = 0.001), 'he did something to spite me' (B= 0.19, p = 0.001), I felt physical pain that still hurt the next day because of the fight we had' (B= 0.16, p = 0.001), someone threatened to have sexual activity against my will (B= 0.11, p = 0.01) and he accused me of being a lousy lover (B= 0.12, p = 0.01).

3.6 Relationships of Domestic Violence, Women's Symptoms of Posttraumatic Stress, Anxiety, and Depression

Our results showed the direct relationships of domestic violence, women's symptoms of posttraumatic stress, anxiety, and depression.

Table 4. Linear regression analysis of total anxiety and each of the violence items

	Unstandardized coefficients		Standardized coefficients	t	*p*	95.0% confidence interval for B	
	B	Std. error	Beta			Lower bound	Upper bound
(Constant)	21.41	0.48		44.40	0.001	20.47	22.36
I felt physical pain that still hurt the next day because of the fight we had	0.68	0.15	0.19	4.41	0.001	0.38	0.98
He did something to spite me.	0.47	0.14	0.15	3.26	0.001	0.18	0.75
He accused me of being a lousy lover.	0.45	0.17	0.12	2.70	0.01	0.12	0.78
I stomped out of the room or yard.	0.31	0.15	0.09	2.10	0.04	0.02	0.60

R2 = 0.19, Std. error of the estimate= 7.81

Table 5. Linear regression analysis of total depression and each of the violence items

	Unstandardized coefficients		Standardized coefficients	t	*p*	95.0% confidence interval for B	
	B	Std. error	Beta			Lower bound	Upper bound
(Constant)	13.15	0.62		21.35	0.001	11.94	14.36
He insulted me	0.61	0.21	0.15	2.94	0.001	0.20	1.02
He did something to spite me.	0.81	0.20	0.19	4.10	0.001	0.42	1.20
I felt physical pain that still hurt the next day because of the fight we had	0.77	0.21	0.16	3.61	0.001	0.35	1.18
Did someone threatened to have sexual activity without your will	0.74	0.28	0.11	-2.70	0.01	1.28	0.20
He accused me of being a lousy lover.	0.60	0.23	0.12	2.66	0.01	0.16	1.05

R2 = 0.15, Std. error of the estimate= 4.81

The study showed that psychological assault toward women was positively correlated to and depression (r= .42, p <.01) anxiety (r= .39, p <.01) and posttraumatic stress (r = .52, p <.01) symptoms. Also, there were significant positive relationships between physical assault and depression (r= .30, p <.01), anxiety (r= .31, p <.01), and posttraumatic stress (r = .41, p <.01) symptoms. Also, there were significant positive relationships between physical injury and depression (r= .28, p <.01), anxiety (r= .33, p <.01) and posttraumatic stress (r = .39, p <.01) symptoms. Sexual assault was positively related to anxiety (r= .20, p <.01) and posttraumatic stress (r = .21, p <.01) symptoms.

4. DISCUSSION

The present study aimed to assess prevalence of domestic violence and relationship to mental health problems of women including PTSD, anxiety, and depression. As shown in our results Palestinian women in the Gaza Strip exposed to domestic violence which include psychological, physical assault, physical injury, and sexual assault. The study showed that 56.91% reported psychological and 37.3% reported physical assault, 12.06% reported physical injury, and 7.14% reported sexual assault. Our results consistent with previous study which found that 23.3% suffered physical abuse from their husbands, 61.7% psychological abuse, and 10.9% sexual abuse at least once during the year 2005 [12]. Similarly in study of Qatari female students, found that 39% were abused by their brothers, 38% by their fathers, and 22% reported abuse from their mothers [14]. Our findings were consistent with another study of Bangladesh women which more than half of the women (53.9%) were exposed to IPV [18]. This study rate of domestic violence is more than found in study of WHO study which showed that 23–49% of women reported physical violence 10–50% reported sexual violence [4]. So, the effect of IPV on society is now viewed not only as a human right issue but also as a public health issue.

Similarly, in study of Palestinian women living in refugee camps in Jordon showed that 78% experienced one form or more of intimate-partner violence. Nearly half of the women were victims to either two (24.3%) or three (22.7%) different types of intimate- partner violence. The most-reported type of intimate- partner violence to which the participants were victims was control by the partner (73.7%), followed by economic intimate- partner violence, reported by 53.3%, and emotional intimate-partner violence, reported by 50.3% of the women [40].

This study showed that 11.4% met the criteria for a diagnosis of post-traumatic stress disorder, 47.1% had severe to very severe anxiety, and 15% of women reported moderate to severe depression. The study showed significant and positive relationships between of psychological, physical assault, injury, and sexual abuse and all women's mental health problems including post-traumatic stress disorder, depression, and anxiety. Similarly, others found moderate to severe depression to be a problem among battered women that was predicted by physical abuse coupled with daily stress [22]. Moreover, other study found that prevalence of major depressive disorder (MDD) among women who had endured intimate partner violence was 68 percent for lifetime MDD and 18 percent for current major depressive disorder [41].

Table 6. Means, standard deviations and intercorrelations of study variables

	M	SD	1	2	3	4	5	6	7	8	9	10
1. Psychological assault	16.34	14.90	1									
2. Physical assault	15.18	19.75	.69	1.00								
3. Physical injury	5.91	9.60	.58	.76	1.00							
4. Sexual assault	1.50	4.31	.37	.52	.59	1.00						
5. Depression	18.50	11.57	.42	.30	.28	.08	1.00					
6. Anxiety	25.14	8.65	.39	.31	.33	.20	.56	1.00				
7. PTSD	34.32	12.62	.52	.41	.39	.21	.69	.60	1.00			
8. Intrusion subscale	9.96	4.44	.50	.41	.39	.23	.55	.50	.86	1.00		
9. Avoidance subscale	14.10	5.52	.43	.32	.31	.15	.64	.52	.90	.65	1.00	
10. Arousal subscale	10.26	4.41	.45	.35	.33	.17	.61	.56	.87	.64	.68	1.00

Similarly the relationship between the domestic violence and mental health status of women previously reported in the literature, domestic violence has a significant impact on women's mental health [26,27,28,31,32,42]. Also, in another study researcher found that among a cohort of primarily African American women, those who were both HIV-positive and experienced any IPV over their lifetime were 7.0 times more likely to report problems with depression, 4.9 times more likely to report problems with anxiety, and 12.55 times more likely to have attempted to commit suicide compared to women who did not experience IPV or were HIV-negative [43]. Some investigators found that women who had experienced IPV were over three times more likely than women without a trauma history to experience depression [44]. Furthermore, in their comparison study showed that the severity of symptoms was higher in the IPV depressive and the IPV-depressive/PTSD groups than in both the non-abused and the IPV -no-symptoms groups. Also, results showed that the prevalence of emotional disorders, anxiety, and somatoform disorders was 22.8%, 24.8%, and 16.9%, respectively [45]. Recently, other showed that the majority of women exhibited depressive symptoms (73%), findings have also shown, more severe physical and sexual IPV was found to be associated with depression in this sample of low-income abused women, which is consistent with prior research examining women experiencing IPV [17]. Moreover, in study of 50 women survivors of IPV showed that over half of women were experiencing either PTSD, clinical depression, or both at the time they were interviewed. Thirty six percent had active PTSD, 48% had depression, and 30% had both [46]. This study results were consistent with study of 308 Chinese women survivors of IPV recruited at community setting and at domestic violence shelters showed that psychological abuse was associated with mental health problems (depressive and PTSD symptoms) and also physical health problems (chronic pain) [47].

5. CONCLUSION

Our study highlights implications for mental health service management of women victims of domestic violence in the Palestinian society. To reduce the risk of adverse family and community violence, care plans should be in place to manage risk and specify action if a crisis does occur. Our findings suggest that a unifying approach overcoming the health issues of domestic violence survivors. This systems approach should take their needs into account, offer high-quality, timely, and sensitive physical and mental health care, and provide effective referrals to other formal support systems. Until these needs are incorporated into the health care system itself, survivors will continue to suffer the health consequences of violence, despite their universal access to care.

Other programs should be designed to include components aimed at reducing women's use of avoidance coping. In addition we should focus on interventions that promote problem-focused coping and social support coping enhance self-efficacy and lead to more positive adjustment. Also, interventions should be designed as well to promote use of these more active approaches to coping with relationship conflict.

Findings suggest that future research should examine women's experience other types of violence such as political and community and their resilience and coping with such problem. It would be useful to examine subtypes of using violence and being victimized (i.e., physical, sexual, and psychological) because investigations at this more discrete level may reveal differential patterns of relationships among variables depending on the type of violence.

CONSENT

All authors hereby declare that study had been examined and approved by the appropriate ethics committee and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. The United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA). Facts and figures. Available:http://www.unrwa.org/where-we-work/gaza-strip (Accessed 7 July 2015)
2. Etienne GK. World report on violence and health. World Health Organization. Geneva: Swizerland; 2002;1. Available:http://www.who.in/violence-injury-prevention/pdf (Accessed 7 July 2015)

3. Rodriguez MA, Bauer HM, McLough-lin E, Grumbach K. Screening and intervention for intimate partner abuse. JAMA. 1999; 282:468-474.
4. Hussain R, Khan A. Women's perceptions and experiences of sexual violence in marital relationships and its effect on reproductive health. Health Care for Women International. 2008;29:468-483.
5. Haj-Yahia M, de Zoysa R. Rates and psychological effects of exposure to family violence among Sri Lankan university students. Child Abuse & Neglect. 2008; 32(10):994-1002.
6. Haj-Yahia M. Wife abuse and battering in the sociocultural context of Arab society Family Process. 2000;39:237-255.
7. Haj-Yahia M. Perceptions of abusive and violent husbands by engaged Arab men in Israel. The Journal of Social Psychology. 1998;138(6):772-786.
8. Assaf S, Chaban S. Domestic violence against single, never-married women in the occupied Palestinian territory. Violence Against Women. 2013;19(3):422-441.
9. Maziak W, Asfar T. Physical abuse in low-income women in Aleppo, Syria. Health Care for Women International. 2003;24: 313-326.
10. Cwikel J, Lev-Wiesel R, Al-Krenawi A. The physical and psychosocial health of Bedouin Arab women in the Negev region of Israel. Violence against Women. 2003; 9:240-257.
11. Ministry of Health. Central Organization for Statistics & Information Technology, Ministry of Health Kurdistan, Kurdistan Regional Statistics Office, & WHO Iraq. Iraq family health survey report (IFHS, 2006/7); 2007. Iraq: World Health Organization.
12. Palestinian Central Bureau of Statistics. Domestic violence survey main findings: Summary of findings; 2006. Available:www.pcbs.gov.ps/ Portals/ PCBS/ Downloads/ (Accessed 7 July 2015)
13. Almosaed N. Violence against women: A cross-cultural perspective Journal of Muslim minority affairs. 2004;24(1):67-88.
14. Al-Ghanim KA. Violence against women in Qatari society. Journal of Middle East Women's Studies. 2009;5(1):80-93.
15. National research on domestic violence against women in Turkey; 2009. Available:www.hips.hacettepe.edu.tr/eng/... /2008-TDVAW_Main_Report.pd (Accessed 7 July 2015)
16. Ministerio DS, Política Social e Igualdad. IV informe anual del observatorio estatal de violencia contra la mujer. IV Annual Report by the National Observatory on Violence against Women; 2011. Available:http://www.msssi.gob.es/ssi/ violencia Genero/ publicaciones/ colecciones/PDFS_COLECCION/libro_14_ IV_ InformeAnual_Ingles. pdf
17. Illangasekare SL, Burke JG, McDonnell KA, Gielen AC. The impact of intimate partner violence, substance use, and HIV on depressive symptoms among abused low-income urban women. Journal of Interpersonal Violence. 2013;28(14):2831-2848.
18. Hossain A, Sumi NS, Haque A, Bari B. Consequences of intimate partner violence against women on under-five child mortality in Bangladesh. Journal of Interpersonal Violence. 2014;29(8):1402-1417.
19. Hou W, Wang H, Chungb H. Domestic violence against women in Taiwan: Their life-threatening situations, post-traumatic responses, and psycho-physiological symptoms. An interview study. International Journal of Nursing Studies. 2005;42:629-636.
20. Campbell JC. Health consequences of intimate partner violence. The Lancet. 2002;359(9314):1331-1336.
21. Woods SJ. Prevalence and patterns of post-traumatic stress in abused and post-abused women. Issues in Mental Health Nursing. 2000;21:309-324. World Health Organization. Switzerland.
22. Campbell JC, Lewandowski LA. Mental and physical health effects of intimate partner violence on women and children Psychiatric Clinics of North America. 1994; 20(2):353-374.
23. Zlotnick C, Johnson DM, Kohn R. Intimate partner violence and long-term psychosocial functioning in a national sample of American women. Journal of Interpersonal Violence. 2006; 21:262-275.
24. Duxbury F. Recognising domestic violence in clinical practice using the diagnoses of posttraumatic stress disorder, depression and low self-esteem. British Journal of General Practice. 2006;294-300.
25. Hampton RL, Carrillo R, Kim J. Domestic violence at the margins: Readings on race, class, gender, and culture. New Brunswick, NJ: Rutgers University Press. Domestic violence in African American communities.

In B. E. Richie, N. J. Sokoloff, C. Pratt (Eds.). 2005;127-141.

26. Beck JG, McNiff J, Clapp JD, Olsen SA, Avery ML, Hagewood JH. Exploring negative emotion in women experiencing intimate partner violence. Shame, guilt, and PTSD behavior therapy. 2011;42:740-750. DOI: 710.1016/j. beth.2011.1004.1001.
27. Devries K, Watts C, Yoshihama M, Kiss L, Schraiber LB, Deyessa N, WHO. Multi-country study team. Violence against women is strongly associated with suicide attempts: Evidence from the WHO multi-country study on women's health and domestic violence against women. Social Science and Medicine. 2001;73:79-86. DOI: 10.1016/ j.socscimed.
28. Ellsberg M, Jansen H, Heise L, Watts CH, Garcia-Moreno C. Intimate partner violence and women's physical and mental health in the WHO multi country study on women's health and domestic violence: An observational study. The Lancet. 2008; 371:1165-1172.
29. Golier JA, Yehuda R, Bierer LM, Mitropoulou V, New AS, Schmeidler J. The relationship of borderline personality disorder to posttraumatic stress disorder and traumatic events. American Journal of Psychiatry. 2003;160:2018-2024.
30. Heru AM, Stuart GL, Rainey S, Eyre J, Recupero PR. Prevalence and severity of intimate partner violence and associations with family functioning and alcohol abuse in psychiatric inpatients with suicidal intent. Journal of Clinical Psychiatry. 2006;67:23-29.
31. La Flair LN, Bradshaw CP, Campbell JC. Intimate partner violence/ abuse and depressive symptoms among female health care workers: Longitudinal findings Women's Health Issues. 2012;22:53-59.
32. Pico-Alfonso MA, Garcia-Linares MI, Celda-Navarro N, Blasco-Ros C, Echeburúa E, Martinez M. The impact of physical, psychological, and sexual intimate male partner violence on women's mental health: Depressive symptoms, posttraumatic stress disorder, state anxiety, and suicide. Journal of Women's Health Issues. 2006;15:599-611.
DOI: 510.1089/jwh.
33. Pico-Alfonso MA, Echeburúa E, Martinez M. Personality disorder symptoms in women as a result of chronic intimate male partner violence. Journal of Family Violence. 2008;23:577-588.
34. Straus MA, Hamby SL, Boney-McCoy S, Sugarman DB. The revised conflict tactics scales (CTS-2). Journal of Family Issues. 1996;17(3):283-316.
35. Blanchard EB, Alexandr JJ, Buckley TC, Forneris CA. Psychometric properties of the PTSD checklist (PCL). Behaviour Research and Therapy. 1996;34(8):669-673.
36. Thabet AA, Abu Tawahina, A, El Sarraj E, Vostanis P. Exposure to war trauma and PTSD among parents and children in the Gaza Strip. European Child & Adolescent Psychiatry. 2008;17:191-199.
37. Taylor JA. Personality scale of manifest anxiety. Journal of Abnormal and Social Psychology.1953;48(2):285-290.
38. Beck AT, Steer RA, Garbin MG. Psychometric properties of the beck depression inventory twenty-five years of evaluation. Clinical Psychology Review. 1988;8:77-100.
39. Abdel-Khalek AM. Internal consistency of an Arabic adaptation of the beck depression inventory in four Arab countries. Psychological Reports. 1998;82:264-266.
40. Al-Modallal H1, Abuidhail J, Sowan A, Al-Rawashdeh A. Determinants of depressive symptoms in Jordanian working women. J Psychiatr Ment Health Nurs. 2010;17(7): 569-576.
DOI: 10.1111/j.1365-2850.2010.01562.x.
41. Stein MB, Kennedy C . Major depressive and post-traumatic stress disorder comorbidity in female victims of intimate partner violence. Journal of Affective Disorders. 2001;66:133-138.
42. Stuart GL, Moore TM, Gordon KP, Ramsey SE, Kahler CW. Psychopathology in women arrested for domestic violence Journal of Interpersonal Violence. 2006; 21:376-389.
43. Gielen A, McDonnell KA, O'Campo PJ, Burke JG. Suicide risk and mental health indicators: Do they differ by abuse and HIV status? Women's Health Issues. 2005; 15(2):89-95.
44. Bonomi AE, Anderson ML, Reid RJ, Rivara FP, Carrell D, Thompson RS. Medical and psychosocial diagnoses in women with a history of intimate partner violence. Arch Intern Med. 2009;169(18):1692-1697.
DOI: 10.1001/archinternmed.

45. Savas N, Agridag G. The relationship between women's mental health and domestic violence in semirural areas: A study in Turkey. Asia-Pacific Journal of Public Health. 2001;23(3):399 -407.
46. Edmond T, Bowland S, Mansoo O. Use of mental health services by survivors of intimate partner violence. Social Work in Mental Health. 2013;11:34-54.
47. Tiwari A, Fong D, Chan C, Ho P. Factors mediating the relationship between intimate partner violence and chronic pain in Chinese women. Journal of Interpersonal Violence. 2013;28(5):1067-1087.

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