Mental Health and Social Function Among Women Subjected to Intimate Partner Violence: A Cross-Sectional Study

Leila Amini[1,4], Maryam Heidary[2], Hamidreza Daneshparvar[3], Homa Sadeghi Avval Shahr[4], Abbas Mehran[5], Bahare Afshar[6]

[1] Nursing Care Research Centre, Iran University of Medical Sciences, Tehran, Iran

[2] Department of Midwifery, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran

[3] Legal Medicine Research Center, Legal Medicine Organization, Tehran, Iran

[4] Department of Midwifery, School of Nursing and Midwifery, Iran University of Medical Sciences, Tehran, Iran

[5] Department of Epidemiology, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran

[6] Student Research Committee, School of Nursing and Midwifery, Iran University of Medical Sciences, Tehran, Iran

Abstract- Intimate partner violence is a serious public health problem in all societies that affects all aspects of the victim's health, especially mental health. The present study aimed to determine the relationship between intimate partner violence and mental health among Iranian women who referred to the Forensic Medicine Center in Tehran. This cross-sectional study was done on 196 married women who referred to the south center of Forensic Medicine in Tehran. Data were collected in 2013 by using three questionnaires: a demographic questionnaire, CTS-2, and GHQ-28. Data analyzed by using SPSS-14 software. The age of participants was 29.9±6.3 years (range 18-57 years). Most women were housekeepers (73%) with moderate economic status (48.5%). Physical violence had the highest mean score (37.29±16.80); and after that, highest mean scores are related to Psychological violence 29.37±7.01, verbal violence 14.83±8.15, Physical violence leading to injury 14.47±6.85, and sexual violence 8.38±7.36, respectively. Verbal violence didn't show any relation with all subscales of mental health. The somatic and anxiety symptoms were significantly correlated to total, and all violence subscales score ($P<0.001$). Also, social function was correlated to total violence score ($P=0.032$), Sexual ($P=0.002$), and psychological violence ($P=0.025$). Depression symptoms were correlated to total violence score ($P<0.001$), physical leading to damage violence ($P<0.001$), Sexual violence ($P<0.001$), Psychological violence ($P=0.002$), and physical violence ($P<0.001$). Our results showed IPV is related to the mental health of battered women, but verbal violence didn't show any statistical relationship with somatic, anxiety, and depression symptoms and social function.

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Introduction

Violence against women, especially Intimate Partner Violence (IPV), is one of the most important issues in all societies (1), with social, economic, and health burden (2). According to WHO reports, 14-74% of women in developing countries and 24% of women in developed countries experience IPV at least once in their lifetime (3). In Iran, the prevalence of emotional-mental, physical and sexual violence is 59%, 45%, and 32%, respectively (2). Violence targets not only the physical health of victim women but also impairs the social, psychological, spiritual, economic, and emotional health of these women. Since the victims experience a lot of physical and psychological tensions, they will be at risk of reproductive and sexual disorders, too (4). The mental health impacts of domestic violence have been well documented in many studies (5-7). Abused women mostly suffer from self-perceived mental health and psychological distress, including depression, post-traumatic stress disorder (PTSD), anxiety, self-harm attempts and suicide, and sleep disorders (8,9). Having an abuse experience is a risk factor for mental health conditions, and in a bi-directional effect, women who had

Corresponding Author: M. Heidary

Department of Midwifery, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran

Tel: +98 918 8579139, Fax: +98 21 66904252, E-mail address: Mheidary95@yahoo.com

mental health conditions are more vulnerable to experience abuse (10). Abused women are likely to feel some bad senses such as guilt, shame or self-blame, and low self-esteem (11). IPV is related to personality disorders, too (12). In addition, Fowler (2007), in his research among 102 battered women, found more than two-thirds of these women are in the moderate to high risk of substance abuse (13). This study aimed at determining the association between Domestic violence and general health in women who referred to Tehran Forensic Medicine, Iran.

Materials and Methods

This cross-sectional study was done on 196 married women who referred to the Tehran Forensic Medicine South Center. The study was confirmed by the Ethical committee of Tehran University of Medical Sciences (No: 91/D/130/2981, 16/02/2013).

The sampling method was consecutive. After obtaining informed consent from all the participants, demographic questionnaire, Conflict Tactics Scales (CTS-2) and GHQ-28 (General Health Questionnaire-28) were used for data collection. Informed consent obtained from all women who met inclusion criteria, including Iranian women without any history of known mental and physical chronic disease or drug abuse. All women completed a demographic questionnaire, CTS-2, and GHQ-28.

CTS-2 is a well-known instrument for assessing violence aspects and containing 36 questions that evaluated women in terms of physical, sexual, psychological, verbal violence, and physical violence leading to damage. The reliability and validity of the questionnaire were confirmed by Behboodi Moghadam *et al*., (2010), with a correlation coefficient of 0.8 (14).

GHQ-28 was used to assess the mental health of the study population. GHQ-28 questionnaire was developed by Goldberg and Hillary in 1979 (15). The standard questionnaire GHQ-28 consisted of four subscales; each included seven items. The subscales are Somatic Symptoms (items 1-7), anxiety (items 8-14), social dysfunction (items 15-21), and severe depression (items 22-28). In this research, the cut-off point, specificity, sensitivity, and the overall classification error were reported to be 24, 0.99, 0.80, and 0.10, respectively, in Iran. In addition, it reported the criterion validity to be 0.78, the co-efficient registers to be 0.90, and finally, the Cronbach's alpha as 0.97. (16,17).

Data analysis was performed by using statistical software SPSS (version 14). Pearson's correlation coefficient was used for analyzing data. $P<0.05$ was considered as significant level.

Results

The mean and standard deviation (SD) age of the women who participated in the study was 29.9±6.3 years (range 18-57 years). Most of the subjects had middle and high school education (52.6%) and were housekeepers (73%). The mean and standard deviation age of woman's husband was 34.3±7.7 years (range 19-79 years), and most of them had middle and high school education levels (48%), and also they were employees (91.8 %). Most participants in this study had moderate economic status (48.5%). Table 1 shows the details of the demographic characteristics of the study samples.

Table 1. Demographic characteristics of participates

Variables	Variable classification	N (%)
Age of woman (year)	≤ 20	7(3.6)
	21-30	97(49.5)
	31-40	77(39.3)
	>40	15(7.6)
Age of husband (year)	≤ 20	1(0.5)
	20-30	55(28.1)
	30-40	103(52.5)
	>40	37(16.2)
woman's education level	Illiterate	2(1.0)
	Primary school	17(8.7)
	high schools	103(52.5)
	University education	74(37.8)
Husband's education level	Illiterate	12(6.1)
	Primary school	19(9.7)
	high schools	94(48.0)
	University education	71(36.2)
women's profession	housekeeper	143(73.0)
	Employed	53(27.0)
Economic Status	Poor	52(26.5)
	Moderate	95(48.5)
	Good	49(25.0)
Husband's profession	unemployed	16(8.2)
	employed	180(91.8)

The results of this study showed physical violence have the highest mean score (37.29±16.80); and after that, highest mean scores are related to Psychological violence 29.37±7.01, verbal violence 14.83±8.15, Physical violence leading to injury 14.47±6.85, and sexual violence 8.38±7.36 respectively.

Table 2 shows the correlation coefficient of mental health subscales and domestic violence dimensions. As this table presents, the somatic symptoms are significantly correlated to total violence score (*P*<0.001), physical leading to damage violence (*P*<0.001), Sexual violence (*P*<0.001), Psychological violence (*P*=0.001), and physical violence (*P*=0.001). The anxiety symptoms are significantly correlated with total violence score (*P*<0.001), physical leading to damage violence (*P*<0.001), Sexual violence (*P*<0.001), psychological violence (*P*<0.001), and Physical violence (*P*<0.001). Also, social function is significantly correlated to total violence score (*P*=0.032), Sexual violence (*P*=0.002), and psychological violence (*P*=0.025). The depression symptoms are significantly correlated to total violence score (*P*<0.001), physical leading to damage violence (*P*<0.001), Sexual violence (*P*<0.001), Psychological violence (*P*=0.002), and physical violence (*P*<0.001), and finally total score of general health is significantly correlated with violence total score and all dimensions score (*P*<0.001) except verbal violence.

Table 2. Correlation between domestic violence dimensions and general health subscales

Dimensions of violence general	Total violence score		physical leading to damage violence		Sexual violence		Psychological violence		Physical violence		Verbal violence	
General health subscales	r*	*P*	r*	*P*	r*	*P*	r*	*P*	r*	*P*	r*	*P*
Somatic symptoms	0.316	0.000	0.248	0.000	0.293	0.000	0.226	0.001	0.236	0.001	-0/047	0.514
Anxiety symptoms	0.407	0.000	0.351	0.000	0.389	0.000	0.311	0.000	0.289	0.000	-0.083	0.247
Social dysfunction	0.154	0.032	0.134	0.061	0.221	0.002	0.161	0.025	0.064	0.375	-0.045	0.533
Depression symptoms	0.361	0.000	0.315	0.000	0.349	0.000	0.221	0.002	0.268	0.000	-0.060	0.403
General health	0.399	0.000	0.338	0.000	0.400	0.000	0.288	0.000	0.280	0.000	-0.073	0.306

*Pearson correlation coefficient

Discussion

Participants in this study were 196 married women, 18-57 years of age, with an average age of 29.9±6.3 years. The most percentage of our participants was 21-30 years (49.5%). In this age range, the mental and physical health of women is a very important issue because this is one of the most active years of life. Violence in every form can affect all aspects of young women's health (18). IPV even can increase HIV infection risk in these women (19). Kusunoki *et al.*, (2017) reports that physical intimate violence in young women is related to the prediction of the contraceptive method and the use of victims (20).

In our study, physical violence got the highest mean

scores. Although other studies did not report physical violence as the most violence experienced by battered women (21,22) since our study population was women who reoffered to the Tehran Forensic Medicine and in general, women who abused physically referred to this center, it can be expected that physical violence got the highest mean (23). On the other hand, it seems women reported other types of IPV less than physical violence because of three reasons: 1. personal, resource, attitude, perceptions, and fears barriers (24); 2. Women often are not aware of all violence types except physical violence. There is a lack of knowledge, especially about emotional and verbal violence, and 3. Since it is not accepted in some cultures, women never want to talk about violence,

and even violence is accepted by women from these cultures (25,26). Furthermore, women may think other types of IPV are not as important as physical violence for talking about it.

The results of our study also showed a significant correlation between total and sexual and psychological subscales score of CTS-2 questionnaire with all subscales and total score of GHQ-28. Also, physical violence showed a significant correlation with all subscales of GHQ-28 except social dysfunction. Previous studies have found a correlation between exposure to various types of violence with psychological factors (25,27), as well as social determinants (28), and somatic syndrome and disease (29). Indeed, all types of IPV can expose women to many psychological disorders such as depression, anxiety, PTSD, suicidality, self-harm, sleep disorders, or physical and chronic health conditions from pain to hypertension and stroke (8).

Interestingly, verbal violence didn't show any significant correlation with GHQ-28 total and subscales scores. It seems these results are due to cultural factors; women believe and attitudes to violence. Women in some societies tend to favor IPV because IPV is considered as a gender issue and affected by admitted difference roles and manners of men and women (30) (e.g., men are predominant, and women should be obedient). This means the husband is appertaining to stronger gender, and therefore he has the right to treat his wife with abusive behavior if necessary (31). On the other hand, in some societies, women justify abusive behavior of their husbands and believe in this idea that the wife often deserves the violence because of their provocative behavior, and therefore abuse is due to their fault (31,32). Besides, since verbal abuse does not show any physical marker so it may not count as an abuse form by some victim women (33). Therefore, one possible explanation for this result is that when verbal abuse seems like normal behavior, it doesn't make sense of belittlement and insult in abused women. So, in these women, psychological consequences may not be revealed.

In conclusion, our results showed IPV is related to the mental health of battered women, but verbal violence didn't show any statistical relationship with somatic, anxiety, and depression symptoms and social function. The explanation of the current result needs to more investigations.

Acknowledgments

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