

A Comparative Study of Anxiety, Stress, and Depression in Physically Abused and non-Abused Iranian Wives

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Objectives: The current study tested differences in depression, anxiety, and stress among Iranian wives with and without a history of spousal abuse.

Methods: The physically abused wives (N = 40) were among those who had been referred to a local forensic medical center. The control group (N = 40) comprised married women living in the same area of the city as the experimental group. The Persian form of Depression, Anxiety, and Stress Scale (DASS-21) was administered for all subjects.

Results: The results showed that for both groups, number of children and years of education predicted level of stress, anxiety, and depression. However, the abused wives scored higher on depression, anxiety, and stress than the non-abused wives.

Conclusion: Despite the traditional sex roles in Iran, the role of moderating factors, and its differences with Western societies, it seems that, wife abuse leads to similar poor mental health consequences.

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Introduction¹

Violence against women is not restricted to a particular culture, religious background, economic class, or ethnic group within a society. For millions of couples, particularly women, violence has been a part of their everyday lives (1). Domestic violence is defined as any form of actual or threatened physical, sexual, psychological, or economic abuse of an individual by someone with whom the person has or has had an intimate relationship (2). Spousal abuse is a specific form of domestic violence, in which one spouse continually abuses the other spouse. The term was coined in the late 1970s, when such crimes were given wider attention in European societies (3). Most reports of spousal abuse involve

violence by men against women (4). To date, no relationship has been reported between ethnicity and the rate of spousal abuse (5).

Worldwide, studies have shown a consistent pattern of events that trigger violent responses by husbands. These include: disobedience, talking back, refusing sex, not having food ready on time, failing to care for children or the home, questioning the man about money or girlfriends, or going somewhere without his permission (6-8).

Justification for violence could result from cultural and gender-related norms; i.e., common views about the roles and responsibilities of men and women in their relationship with each other (9). In some cultures, such as parts of Egypt, even women view a certain amount of physical abuse as justified under certain conditions (e.g., refusing sex with husband) (10). Whereas some societies overlook or at least tolerate a certain amount of violence against women (e.g., the right of a husband to discipline his disobedient wife), in other societies, a husband's beating or physically intimidating

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his wife is a severe criminal act (9). However, even in the United States, where spousal abuse is a crime, one in four women have been physically or sexually abused by their intimate partner (2).

The Office of Violence Against Women of the United States, Department of Justice (2000) reports that, spousal violence threatens women of 20-34 years old more than other age groups (11). According to Ezazi (2004), Iranian studies of the relationship between the age of women and spousal violence have led to inconsistent results. For example, some studies report higher prevalence of spousal abuse among younger than older women, whereas other studies report an opposite relationship or no relationship at all¹ (12). In many cases, women's suicidal attempts have been preceded by spousal abuse. Moreover, female victims represented 70% of intimate murder victims (5).

In 2001, the Iranian National Committee on Violence against Women conducted research in 28 Iranian provinces on the reasons for domestic violence against women. The results suggested that, the most important factors underlying violence against women were: couples' lack of knowledge about their legal rights in a marriage, undesirable marital relationships, families' problems with mental health (e.g., depression), poor problem-solving skills, acting unreasonably, bullying, and ignoring one's spouse in decision makings (14).

According to the United Nations Development Reports (2006), women generally earn less than men (15). The lower income of women means that they are potentially at greater risk of feeling inferior and becoming dependent to their husbands (16). Research shows that in Iran, a woman's employment is usually associated with reduction in the reported dominance of her husband in the family (17). There is also evidence for positive correlations between women being victimized by domestic violence and their age, the number of children that they have and their level of education and income (18-20). Moreover, uneducated wives who live

in rural areas are at greater risk of domestic violence than those living in cities (20,21).

Research also suggests that, husbands of working women typically contribute more to the household activities than husbands of unemployed women; nonetheless, even in such families, it is the wife who undertakes the main responsibility for the household duties (17). Mohseni (2000) suggests that, in addition to a woman's educational level and occupation, the income of the family also affects her power and her role in decision making (22).

Physical violence is nearly always accompanied by psychological abuse, which can be even more humiliating. Reports on the prevalence of physical and psychological abuse of women in Iran are inconsistent (12). The reported prevalence of physical abuse varies from 20% (23) to 50% (24). Moreover, in one out of five marriages, the frequency of domestic violence can be as high as five or more incidents per year (25). Also, the prevalence of psychological abuse varies from 26% (23) to 35% (24). Kar (2000) reported that, in total, about 30% of families have experienced serious physical abuse at least once, 10% of which had led to injuries (26).

Clearly, reports of the frequency of violence against women do not describe the atmosphere of terror that, characterizes abusive relationships. For some, the negative consequences could be exacerbated due the genetic, environmental and epigenetic factors that influence the brain functions and the symptoms of manifested mental disorders (27).

Evidence (e.g., 28-31) shows that, domestic violence results in prolonged stress, depression, anxiety disorders, post-traumatic stress disorders, suicide, eating disorders, and substance abuse. Bybee and Sullivan (2002) reported that, stress and depression were strong predictors of women's health and surprisingly, spousal abuse was a stronger predictor of women's stress than was the poverty (32). Wilt and Olsen (1996) reported that, in the United States, stress disorders were much more prevalent among female victims who had been subjected to physical and sexual abuse than those who had not been (33).

To understand the context of spousal abuse in Iran, it is necessary to know more about

¹. From 1996 to 2007, the average age of marriage for Iranian men and women increased from 26.0 to 29.7 and from 23.0 to 27.9, respectively (13).

women's status in this country. In 1996, a survey on Iranians' gender-related attitudes was conducted in 15 cities. Among those who responded to one of the questions addressing gender dominance in the society, 59.9% of the participants agreed that, males were dominant, 21.15% believed that, the two genders were equal, and only 13.4% believed that, the society was more feminine than masculine (22). In response to the question about being given a chance to be born again as a male or a female, only 10.6% of the males wished to be born as a female, whereas 38.7% of females preferred to be born as a male (22).

In a similar survey about making decisions in families, 37% of participants who responded to the question believed that, mainly husbands and wives should contribute to making decisions; 17% believed that, all the family members should be consulted before arriving at a decision; 35.5% believed that, it is the husband who should have the final word, whereas only 6.8% believed in the central role of wives in making important decisions (22).

Comparing these findings with a similar survey conducted in 1974 shows that, the dominance of men in Iranian families has been reduced by almost 50%. However, still men are considered to be the most powerful members of their families (34). For example, not many Iranian men tend to help with housekeeping duties, an activity that is culturally viewed as a feminine role (14).

There is little evidence about the mental health of Iranian women subjected to spousal abuse. The current study aimed to compare the prevalence of depression, anxiety, and stress among women subjected to spousal violence with those who did not report spousal abuse. The study was conducted in Mashhad, which is the second largest city in Iran with a population of almost 2,400,000 people (35). The hypothesis tested was that, physically abused wives would suffer from greater stress, anxiety, and depression than non-abused wives.

Materials and Methods

Participants:

Participants were a group of physically abused wives (N = 40, age = 30.25 ± 9.99

years) and a group of non-abused wives (N = 40, age = 38.25 ± 7.68 years). The physically abused wives were randomly selected among those who had been referred by the Family Court to the Forensic Medical Organization Center (FMOC) in Southeast Borough of Mashhad, with recent complaints of having been beaten by their husbands. All clients at the center resided in the FMOC's catchment area. The control group comprised married women who lived in the same area of the city as the experimental group. The control participants had not reported a history of physical abuse by their husbands. Table 1 shows the number and percentage of women in each group in terms of their level of education.

Table 1. Education level for women in the abused and non-abused samples

	non-Abused n (%)	Abused n (%)
Up to primary school	14 (35)	13 (32.5)
Primary high school	8 (20)	10 (25)
Secondary high school	14 (35)	6 (15)
High school diploma or higher	4 (10)	11 (27.5)
Total	40 (100)	40 (100)

Instruments:

Depression, Anxiety, and Stress Scale: The Depression, Anxiety, and Stress Scale (DASS) is a self-report scale that measures depression, anxiety, and stress (36). A short Persian version of the scale (Persian DASS-21) (37), with seven items per subscale, was used. The Depression subscale measures dysphoria, hopelessness, devaluation of life, self-deprecation, and lack of interest/involvement, anhedonia, and inertia. The Anxiety subscale measures autonomic arousal, skeletal muscle effects, situational anxiety, and the subjective experience of anxiety. The stress subscale measures difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive, and impatient. Sahebi et al, (2005) reported Cronbach's alphas greater than 0.71 for all subscales, supporting the reliability of the Persian DASS-21. In support of the scale's validity, the authors reported medium to high correlation coefficients between the Persian DASS-21 and the Perceived Stress

Scale (38) and Zung's Self-Rating Anxiety Scale (39) (all correlations >0.49) (37).

In addition to the DASS-21, a structured interview was used to collect demographic information, such as participants' age, level of education, income, employment status, and number of children.

Procedure:

Data were collected over the course of two months in the summer of 2006. After reading an information sheet about the study and giving their informed consent, participants provided demographic information and then completed the measures. Participant recruitment was conducted through random sampling without substitution and was discontinued after 40 participants for each group had been recruited. All the measures were administered through face-to-face interview to participants who showed unsatisfactory reading and writing skills. The participants in the control group were mothers of students at a secondary school. A random sample of 40 students was first chosen. Next, the school psychologist's view about the family background of each student was sought, and if there was any known history of spousal relationship difficulties, another student was randomly selected. Next, the school principal sent invitation letters to the mothers of the students inviting them to take part in the study, which was announced as a project related to the measurement and delivery of free psychological services that might benefit them and their children. The history of any past or current spousal abuse was investigated with the invitees before conducting the study. The data from those participants who reported any experience with spousal abuse were not used in the study. At the conclusion of the study, each mother received a pamphlet about youth's psychological problems. The data collection from controls stopped after 40 participants had been recruited.

Statistical Methods:

To test the study hypothesis, a series of linear regression models were run. Regression was preferred over a multivariate analysis of covariance because the latter necessitates having sufficient data in each cell for the interaction terms to be produced; this criterion

was not met. In addition, as Miles and Shevlin, (2001) have argued, regression models lead to the same results as ANOVA models (40).

All 2-way (e.g., group \times children) and 3-way (e.g., group \times children \times occupation) interaction terms between group and the demographic variables were calculated. The interaction terms were tested to determine whether any differences in psychological distress across the groups could be attributed to their demographic characteristics rather than their group membership. Because there were few participants in some of the educational categories and to avoid complexities of dummy coding of this variable (40), education was recoded as a dichotomous variable as: (a) those with high school or higher education or (b) those with lower educational qualifications than high school. For each of the DASS scales, four 2-way and 3-way interaction terms were calculated. In each hierarchical regression model testing an interaction term, the first step included the two or the three variables whose interaction term was entered at the second step. An interaction existed and needed to be further scrutinized if it produced a significant increment in the variance of the dependent variable over the proportion of the variance already explained by variables in the first step.

Results

In terms of income, 30% of participants in the abused group and 17.5% of those in the non-abused group had low incomes, which was defined as from 8,400,000 to 12,000,000 Rials (\$900 to \$1300 US dollars) per annum. The remaining participants had a medium level of annual income, which was from 30,000,000 to 36,000,000 Rials (\$3,300 to \$4,000) per annum (35). Sixty two percent of the women in the abused group and 42% in the non-abused group reported having more than two children. The employment rate (defined as working outside the home) was 27.5% for the abused group and 20% for the non-abused group.

A multivariate analysis of variance showed that among the demographic variables the two groups differed from each other only in terms

of age, $F(1, 78) = 16.12$, $p = 0.0001$, $p = 0.17$. The non-abused women were older than the abused ones.

Prior to testing the research hypothesis, two correlation matrices were compiled. First, relationships between age and the Persian-DASS indices were examined separately for the abused and the non-abused participants (Table 2). The only significant correlation was between age and depressive symptoms among the abused group. As expected, significant correlations were observed among the Persian-DASS indices for both groups.

Table 2. The relationship between age and the Persian-DASS indices, separately for abused and non-abused groups

	Age	Anxiety	Stress	Depression
Age		0.18	0.18	0.32*
Anxiety	0.093		0.83	0.81**
Stress	0.008	0.92**		0.85**
Depression	0.113	0.90**	0.93**	

Note: Correlations above the diagonal are for the abused group. * $p < 0.05$, ** $p < 0.01$ (one-tailed).

Second, relationships between the demographic variables and the Persian-DASS indices were examined (Table 3). The pattern and the number of significant correlations within each DASS scale and demographic variables were similar across the abused and non-abused groups.

Table 3. The relationship among the Persian-DASS indices and demographic variables for abused and non-abused groups

	Anxiety	Stress	Depression	Income	Children	Occupation	Education
Anxiety		0.79**	0.74**	0.33**	0.40*	-0.214	0.62**
Stress	0.83**		0.87**	0.52**	0.64**	-0.39*	0.82*
Depression	0.85**	0.89**		0.47**	0.60**	-0.35*	0.74**
Income	0.38*	0.33*	0.44**		0.85**	-0.84**	0.76**
Children	0.68**	0.80**	0.80**	0.40*		-0.70**	0.83**
Occupation	-0.35*	-0.30	-0.38*	-0.92**	-0.43**		-0.63**
Education	0.69**	0.74**	0.81**	0.60**	0.86**	-0.64**	

Note: Correlations above the diagonal are for the abused group. Codes for the multilevel variables were as follows: Income: 1 = low, 2 = moderate; Children: 1 = fewer than two, 2 = more than two; occupation: 1 = housewife, 2 = employed; education: 1 = no formal education, 2 = primary school, 3 = middle school, 4 = high school, and 5 = Diploma or higher. * $p < 0.05$, ** $p < 0.01$ (one-tailed)

None of the regression models was significant when interactions between group and the demographic variables were tested; scores on anxiety, stress, or depression,

respectively, were entered as the criterion variables. The following section reports the results of hierarchical regression models testing the study's hypothesis. In each model, demographic variables were controlled in the first step before group membership (i.e., abused or non-abused) was entered in the second step (Table 4).

First, the results of the regression model predicting anxiety showed that demographic variables explained 36% increment in anxiety, $F(4, 74) = 10.80$, $p = 0.001$; however, number of children ($t = 2.94$, $p = 0.001$) was the only significant predictor of anxiety in step one of the model. In the second step, group membership led to a significant increment ($R^2 = 0.19$) in anxiety variability, $F(1, 74) = 18.96$, $t = 5.75$, $p = 0.001$, over the proportion that had been already explained in the first step. Second, the results of the regression model predicting stress showed that, demographic variables (step one) significantly predicted variation ($R^2 = 0.62$) in the amount of stress, $F(4, 74) = 30.83$, $p = 0.001$, with number of children ($t = 3.26$, $p = 0.002$) and education ($t = 4.32$, $p = 0.001$) as significant predictors of amount of stress. In step two, group membership significantly predicted increments in stress by 4.2%, $F(1, 74) = 29.25$, $t = 3.04$, $p = 0.003$). Third, the results of the regression model predicting depression showed that, the demographic variables

accounted for a 49% increment in depression, ($F(4, 74) = 17.98$, $p = 0.001$); again, number of children ($t = 3.49$, $p = 0.001$) and education ($t = 2.34$, $p = 0.02$) were the significant

Table 4. Hierarchical regression models predicting DASS indices from group membership and demographic variables

model	Variables	Dependent Variable								
		Anxiety	Stress	Depression	Anxiety	Stress	Depression	Anxiety	Stress	Depression
		B			SEB			β		
1	(Constant)	15.50	-4.90	0.92	17.63	19.10	17.20			
	Income	-12.45	-8.43	-6.67	8.76	9.49	8.55	-0.36	-0.18	-0.19
	Children	13.97	16.79	16.17	4.47	5.13	4.63	0.47**	0.41**	0.51**
	Occupation	-5.53	-1.56	-1.02	8.76	9.49	8.55	-0.16	-0.032	-0.027
	Education	7.44	20.77	10.13	4.42	4.79	4.31	0.25	0.50**	0.32*
2	Group	14.82	9.64	15.43	2.57	3.16	2.43	0.51**	0.23*	0.48*

Note: Variables were coded as follows. Group: 1 = non-abused, 2 = abused; Income: 1 = low, 2 = moderate; Children: 1 = fewer than 2 children, 2 = more than 2 children; Occupation: 1 = housewife, 2 = employed; Education: 1 = up to high school, 2 = high school or higher. * $p < 0.05$, ** $p < 0.01$ (one-tailed).

predictors in step one. In the second step, group membership significantly predicted an additional 18% of in the variability in depression, $F(1, 74) = 29.97$, $t = 6.35$, $p = 0.001$, over the proportion that had been already explained by the first step.

Discussion

This study compared stress, anxiety, and depression of physically abused and non-abused Iranian wives. For all wives, the number of children and the level of their education were positively associated with anxiety, stress, and depression. The results also indicated that, the abused women were higher on anxiety, stress, and depression than non-abused women after demographic variables had been taken into account.

Interpretation of the second finding seems straightforward, but the relationship between education and stress, anxiety, and depression is less clear, mainly because we do not have complementary data (e.g., husbands' level of education) that might help explain the finding. However, evidence suggests that, there is a negative relationship between spouses' education and domestic violence. For couples with education beyond high school, the rate of domestic violence significantly decreases (41, 42).

The relationship between education with anxiety, stress, and depression can be explained in various ways. For example, higher education may mean that, couples are more aware of and sensitive to life hassles and problems. It could also mean that, couples have higher standards and are more perfectionists, and these characteristics cause

feelings of frustration. However, the fact that number of children and educational level did not interact with group membership suggests that, educational level per se might be related to circumstances that increase marital tensions underlying spousal abuse. Research suggests that, educational inequality in a marital relationship has more adverse effects on men than it does on women (43). Moreover, the results of a research conducted in Oman suggested that, education was a key indicator of women's status and a predictor of their autonomy (44).

It is important to differentiate between spousal abuse in an Islamic society and the Islamic recommendations about marital relationships. Evidence (e.g., 12, 18) suggests that, some abusive behaviors by Iranian husbands are related to their lack of respect for religious beliefs. Couples' religious conflicts and lack of religious conviction may contribute to domestic violence (e.g., 20).

According to Islamic beliefs, males and females are created alike. According to the Holy Quran (45), gender should not be a basis for discrimination, and it should not affect men's or women's human rights; rather it is a person's piety and good will that matters (e.g., "the noblest of you, in the sight of Allah, is the best in conduct;" Chapter 49, Verse 13). Along with this equality, the Quran says that, husbands are responsible for their wives, "Men are the protectors and maintainers of women" (Chapter 4, Verse 34). There is a chapter in the Quran devoted to women (i.e., Chapter 4), and in several verses Muslims are reminded of women's rights (e.g., Chapter 4, Verses, 4,19,20,35, 127,128,129). The Quran also emphasizes the protective concept of

matrimony. "They [your spouses] are your garments and ye are their garments" (Chapter 2, verse 187). The Prophet Mohammed (PBHU) was affectionate and kind toward women; "Just the honorable man respects women and just the ignoble scorns them" and "The most of goodness are in female's temper" (46). In addition, in Islam marriage is considered to be an agreement between husband and wife; hence, a wife can set certain conditions (e.g., the right of permanent custody of the children in the case of divorce) (14).

There are a number of explanations for spousal abuse. For example, spousal abuse may run across generations. According to Tjaden and Thoennes (2000b), one third of women who are physically abused by a husband or partner grew up in a household in which their mothers were physically abused. About one woman in five was also abused as a child or teenager. Boys and girls who grow up in such abusive families may develop attitudes and behavioral tendencies that, promote spousal abuse for their own marriage (2).

A survey about knowledge and attitudes of people toward violence against women in Iran (47) suggested that, it is at a moderate level. These authors' findings suggest that, husbands' aggressive behaviors toward their wives could result from the belief that, men are superior to women. The authors also report that, differences between younger and older generations' views about familial violence indicate a change in family structure and the two genders' expectations from each other as spouses. Therefore, recent increases in the divorce rate could indicate clashes between an old and a new pattern of expectations about marriage and family life. The conflict can also result from females' better education, an increase in participatory decision making among young families, and objections to social inequalities against women. Each of these factors indicates a structural transition of the family from a traditional to a modern style (47).

Although very distressing, many abused women decide to stay in an abusive marriage. Some fear that, if they leave their husbands or report his abusive behaviors, the husband's violence might be directed toward the

children. In a cross-sectional study, 100 women from Bushehr Province who had been victims of domestic violence were evaluated. Despite all of the negative problems experienced, they had kept them hidden (even after two years); the most frequently reasons for doing so were fear of losing their children (23%), shame of what was happening to them (19%), and lack of information (48). Other women remain in violent marriages because they have no place to go, and they often have no money or skills needing to find a job to support themselves and their children. In addition, Iranian women generally believe that, it is very important to keep their family together. They are sometimes forced by their relatives and friends to be dutiful wives, and they are willing to suffer to prevent a breakup of their family (49).

Consistent with the results of the current study, other researchers have reported mental health consequences of domestic violence that include depression, stress, and anxiety; especially if the abuse occurs repeatedly (26,28,50).

Abused wives, especially those with low income, are worried about their future after divorce. According to many Iranians, obedience to the husband is the hallmark of a good wife, whereas divorce or even serious confrontation with her husband is considered disgraceful. Moreover, divorce would degrade the social status of a woman (14,17,26) the lack of external confirmation and stigma associated with being divorced are reasons for quietly tolerating the situation quietly, but doing so increases the risk of depression and anxiety.

Surveying domestic violence against women in Isfahan, researchers (2005) found that, verbal and psychological abuse were the most frequently reported kind of abuse (34-62%), followed by sexual, economic, and physical abuse (5-53%). The distribution of the different kinds of abuse varied according to socio-cultural transition; physical abuse is gradually changing to other forms of abuse (50).

The main limitation of the present study is that the abusive husbands had been prosecuted for their violent behavior, thereby reducing our chances to interview them to get

supplementary information, such as information about their mental health, history of drug use and court sentences, religious status, and problem-solving skills. Most of these factors play an important role in spousal abuse (12,18,20,29,47).

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