

Mental Health Status of Women in Jordan: A Comparative Study between Attendees of Governmental and UN Relief and Works Agency's Health Care Centers

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This study aimed at investigating differences in mental health problems between attendees of governmental and United Nations Relief and Works Agency for Palestine Refugees health care centers in Jordan. Further, predictors of mental health problems based on women's demographic profile were investigated. A convenience sample of 620 women attending governmental and United Nations Relief and Works Agency for Palestine Refugees health care centers in Jordan was recruited for this purpose. Independent samples *t*-tests were used to identify differences in mental health, and multiple linear regression was implemented to identify significant predictors of women's mental health problems. Results indicated an absence of significant differences in mental health problems between attendees of the two types of health care centers. Further, among the demographic indicators that were tested, income, spousal violence, and general health were the predictors of at least three different mental health problems in women. This study highlights opportunities for health professionals to decrease women's propensity for mental health problems by addressing these factors when treating women attending primary care centers in different Jordanian towns, villages, and refugee camps.

Mental health problems have become a common phenomenon in residents of different communities. National studies focusing on this phenomenon provide evidence that people of different characteristics and backgrounds are affected by a variety of mental health illnesses. Examples of common mental health problems include depression, anxiety, stress, and alcohol and drug abuse. Females are likely to have mental health problems (Weitzman, 2004). In one study, Houry et al. revealed that 24% and 15% of the females in their study complained of moderate/severe depressive symptoms and moderate/severe posttraumatic stress disorder (PTSD) symptoms, respectively (Houry, Kembal, Rhodes, & Kaslow, 2006).

Several factors have been found to be influential in determining women's mental health status. Among these are experiences of abuse during childhood (Nilsson, Bengtsson Tops, &

Persson, 2005) and, later, by an intimate partner (Al-Modallal et al., 2012; Coker et al., 2002). In one study, investigators reported that, compared to their non-abused counterparts, women who experienced partner violence were more likely to report depression/anxiety, fearfulness, and lowered self-esteem (Forte, Cohen, Du Mont, Hyman, & Romans, 2005). Other factors known to influence women's mental health include family and child demands (Al-Modallal, Abuidhail, Sowan, & Al-Rawashdeh, 2010), disabilities that prevent work (Coker, Smith, & Fadden, 2005), lack of social support (Coker et al., 2002), and low socioeconomic status (Weitzman, 2004).

Poor mental health status may influence women's relationships within social and familial contexts. Further, poor mental health status could result in self-harming actions. The ultimate undesirable problem associated with poor mental health in women is suicide (Houry, Kaslow, & Thompson, 2005; Thompson, Kaslow, & Kingree, 2002). Therefore, it is important to identify women who are experiencing mental health problems to establish the groundwork for working with them to prevent such undesirable consequences at the social, familial, and personal levels.

MENTAL HEALTH OF WOMEN IN JORDAN

Mental health in Jordanian women recently has become an issue of interest for researchers. However, mental health in the general community of Jordanian women is still not well-investigated. Existing literature in this field shows a variety of mental health problems among these women. Such problems included depression, stress, anxiety, and low self-esteem. In one study of working women, 51.2% of the participants presented with depressive symptomatology (Al-Modallal, 2010). In another study, stress was reported by 36.7% of the female participants (Al-Modallal et al., 2012). A third study revealed that the anxiety prevalence rate reached 41.6% of the female participants (Al-Modallal, 2012a). These findings highlight the high prevalence of mental health problems among women in the Jordanian community.

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Risk factors associated with the occurrence of mental health problems in Jordanian women are many. In one study, investigators pointed at the significance of multiple factors associated with such experience. Among these factors are complaints of chronic illnesses, financial hardship, and responsibilities associated with home and family (Al-Modallal, et al., 2010). The role of these factors in women's lives is discussed further in their study (Al-Modallal et al., 2010).

Another factor documented as significant in predicting women's mental health status is their experiences of psychological partner violence. Psychological partner violence significantly increased women's experiences of depression ($t = -4.92$, $p < 0.0001$), stress ($t = -3.73$, $p < 0.0001$), and anxiety ($t = -4.22$, $p < 0.0001$) (Al-Modallal, 2012a). Living conditions, including poor economic status, crowdedness, and high family needs, are among the factors that explain the presence of mental health problems in women (Al-Modallal, 2012a).

PURPOSE OF STUDY

Jordanian society is considered unique, and its uniqueness stems from its mixed population (Jordanians and Palestinian Refugees), characteristics of families, and familial traditions. However, differences in rates of individuals who suffer from mental health problems could be influenced by some factors that may be based upon differences of groups in this community. Discovering mental health problems can first be detected by health professionals working in primary care settings. Primary care settings are the frontline of interaction between patients and health professionals. Therefore, it was interesting to investigate the differences in mental health problems among attendees of different health care centers that provide primary care (objective 1). Further, predictors of mental health problems based on women's demographic profile were investigated using multiple linear regression (objective 2). The significance of this study emerges from being the first to make such comparison in Jordan.

METHODS

Design and Setting

This study was a cross-sectional comparative study. We implemented a cross-sectional design because we measured both exposure (type of health care center) and outcome (mental health problems) simultaneously from the participants. The setting for this study was health care centers in three major Jordanian cities. Health care centers in Jordan fall in one of two major categories, depending on the agency running them. Health care centers can be either governmental or United Nations Relief and Works Agency for Palestine Refugees (UNRWA) health care centers. Governmental health care centers are run by the government, specifically by the Jordanian Ministry of Health (MOH). The UNRWA health care centers, on the other hand, are founded and run by UNRWA headquarters located in Amman-Jordan. Gov-

ernmental health care centers are widely distributed in Jordanian cities and villages. The UNRWA health care centers, on the other hand, are available only within refugee camps' boundaries. Services provided by these MOH and UNRWA health care centers include child care, maternal care, the treatment of chronic illnesses, lab investigations, pharmaceutical services, and minor surgical procedures that do not require general anesthesia. The MOH and UNRWA health care centers were used as settings for this study because they are easily accessible; transportation was not an issue for the majority of the participants.

Participants

Participants of this study were women who visited an MOH or UNRWA health care centers in one of three cities: Amman, Zarqa, and Irbid. Users of MOH health care centers pay part of the cost associated with treatment, depending on the type of health insurance they own. Furthermore, people who have governmental health insurance can have medical assistance free of charge. Users of UNRWA health care centers have a special UNRWA card that allows them to get health care free of charge.

Women eligible for participation in the study were those who: (1) attended a MOH or UNRWA health care center, (2) presented alone at the health care center or accompanied by any of her family members but not her husband or fiancé, (3) were not suffering from acute pain associated with her disease, and (4) were willing to participate in the study. Exclusion criteria included women (1) attending the health care center with her partner (husband or fiancé), (2) presenting with acute pain, or (3) taking regular medications, like antidepressants, hypnotics, or tranquilizers, for any mental health problem.

Women's responses to questions such as those focusing on her relationship with her spouse would be influenced by the presence of the spouse. This exclusion criterion was set due to sensitivity of the subject matter. Complaints of pain might preoccupy the participant and thus limit her focus while completing the study questionnaire. As the study questionnaire is a self-report tool asking women to report their agreement to sets of behaviors, each set representing a certain mental health problem, taking prescribed medications for any mental health disease would veil actual complaints and behaviors and, thus, result in false responses. A sample of 620 women provided data for this study.

Data Collection

Data were collected from women while they were waiting to receive the treatment they were seeking. Women in different waiting areas of different clinics and investigation departments were the target population for the study. Women who met the inclusion criteria were approached by the research assistants who provided a brief description of the study, its purpose, the type of data needed, and the time required to complete the questionnaire. Because women were waiting to receive a certain health care service, those who were able to be seen by the health

professional were excused from completing the questionnaire and their responses were excluded from the study. Women who were willing to provide data were asked to sign a consent form. The consent form represented women's agreement to provide data with no harm associated with their choice to participate, or not participate, in the study. Women who refused to participate or withdrew in the middle of the study were guaranteed that their choice would not be associated with incompetent service or with any kind of harm.

Women were asked to provide data about their mental health status. Data were collected in a paper and pencil format. Data for the study were self-reported, meaning that women read and answered the study questions on their own. However, women who expressed need for some clarification had the chance to meet with one of the trained research assistants in a private room of the health care center. Further, confidentiality of the data was maintained by (1) discussing refusal and withdrawal options of participants in the study, (2) collecting anonymous data, (3) placing completed questionnaires in similar envelopes, and (4) keeping the completed questionnaires in a locked cabinet accessed only by the primary investigator (PI).

Measures

Mental health is defined as, "The successful adaptation to stressors from the internal or external environment, evidenced by thoughts, feelings, and behaviors that are age-appropriate and congruent with local and cultural norms" (Townsend, 2006, p. 16). Eight different mental health problems reflecting thoughts, feelings, or behaviors of our participants were asked about in this investigation: depressive symptoms, stress, anxiety, self-esteem, quality of life, sleepiness problems, suicidal thoughts, and suicidal attempts. Mental health problems that reflected thoughts are depressive symptoms, quality of life, and suicidal thoughts. Stress, anxiety, and self-esteem reflected feelings and sleepiness problems and suicidal attempts reflected behaviors.

Instruments used in this study were originally in English. They were translated to Arabic (participants' language) and back-translated by two PhD holders fluent in Arabic and English. A third PhD holder checked accuracy of the translation process. The three translators were asked, as well, to assess content validity of the instruments. Changes to some items were performed upon their feedback. The reading level for instruments in the form presented to participants ranged between the 5th and 7th grade reading levels. Below is a brief description of the measures used in this study.

Depressive Symptoms

The Center for Epidemiologic Studies-Depression (CES-D) scale is used to measure depressive symptoms (Radloff, 1977). The 20-items CES-D is built out of a number of major components representing depressive symptoms. These components are: depressed affect, positive affect, somatic and retarded activity, and interpersonal symptoms (Radloff, 1977). Each of the 20

items on the CES-D can be rated as "rarely or none of the time (less than 1 day);" "some or a little of the time (1–2 days);" "occasionally or a moderate amount of time (3–4 days);" and "most or all of the time (5–7 days)." Possible scores range between 0 and 60, with higher scores indicating higher levels of depressive symptoms. Validity and reliability of the CES-D was supported by related literature (Bonilla, Bernal, Santos, & Santos, 2004; Zauszniewski & Bekhet, 2009; Zauszniewski & Graham, 2009). Cronbach's alpha of the CES-D in this study was 0.89.

Stress

Stress was measured using the Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983). The PSS is a 10-item tool measuring perceived psychological stress among adults. Each item was rated using a 5-point scale ranging from "never" (coded 0) to "very often" (coded 4). The final score is obtained by summing the scores of the 10 items after score-reversing the four positive items (items 4, 5, 7, and 8). Possible scores range between 0 and 40. The PSS was reliable in a sample of male and female college students (Cronbach's alpha = 0.84) (Cohen et al., 1983). Validity of the measure was supported by significant correlations with depressive symptoms, physical symptoms, and utilization of health services among two samples of college students (Cohen et al., 1983). Cronbach's alpha for the PSS in this study was 0.60.

Anxiety

Anxiety level was measured by the 7-item self-report anxiety subscale of the Depression, Anxiety, Stress Scale (DASS; Lovibond & Lovibond, 1995). Examples of the anxiety items are: "I experienced breathing difficulty," "I experienced trembling (e.g., in the hands)," and "I felt I was close to panic." Ratings of the items were as follows: "did not apply to me at all," "applied to me to some degree, or some of the time," "applied to me to a considerable degree, or a good part of the time," and "applied to me very much, or most of the time." Possible scores range between 0 and 21 (or 0 and 42 as the final score is doubled). Correlation value of 0.85 was yielded between the anxiety subscale and the Beck Anxiety Inventory (BAI) (Antony, Bieling, Cox, Enns, & Swinson, 1998). Cronbach's alpha of 0.90 was yielded by our participants.

Self-Esteem

The Rosenberg Self-Esteem scale (RSE; Rosenberg, 1965) was used to measure self-esteem level of our participants. It is a 10-item scale reporting participants' agreement with statements like "I feel that I have a number of good qualities" and "I am able to do things as well as most other people." Items were rated on a 5-point rating scale ranging somewhere between "strongly disagree" to "strongly agree." Five of the items need to be score-reversed. Possible RSE score range between 0 and 50; where higher scores indicate higher self-esteem levels. Cronbach's alpha in a sample of 101 Jordanian women was 0.78 (Al-Modallal et al., 2012).

Quality of Life

Quality of life was measured using the Quality of Life Visual Analogue Scale (VAS) (Martsof, Sedlak, & Doheny, 2000). It is a 10-centimeter scale anchored as worst and best quality of life. Participants were asked to rate the quality of their lives as they view it. Their scores were considered to the nearest 0.1 centimeter. The Quality of Life VAS was used previously and its success was evident (Martsof, 2004). Simplicity of the scale urged using it in this study. The mean quality of life score yielded by our participants was 6.4 ($SD = 2.3$).

Sleepiness Problems

Sleepiness problems were assessed using the Epworth Sleepiness Scale (ESS; Johns, 1991). The ESS consists of eight items that measure daytime sleepiness or the probability of falling asleep during the day. The final score of the summed eight items ranges between 0 and 24, with higher scores indicating the presence of sleepiness problems. The alpha level yielded by our participants was 0.67. A previous study indicated presence of sleep problems among women with depression (Dienemann et al., 2000). Further, women with activity limitations had an increased use of medications for sleeping problems (Forte, Cohen, Du Mont, Hyman, & Romans, 2005). Since women attending health care centers generally complain of some physical problems, the ESS was used in this study.

Suicidal Thoughts and Suicidal Attempts

Suicidal thoughts and suicidal attempts were assessed by asking one question for each concern. Women were asked if they have ever had a suicidal thought and were asked if they ever attempted suicidal actions of any kind. A "yes" response indicated the presence of either suicidal thoughts or suicidal attempts, accordingly.

Spousal Violence

The World Health Organization's (WHO's) definition of intimate partner violence was used in this study: "any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm or suffering to women" (World Health Organization, 2009). An intimate partner is the person related to women through marriage or engagement and both intimate partner violence and spousal violence can be used interchangeably in the Jordanian culture. Spousal violence was assessed using the Abuse Assessment Screen (AAS; Soeken, McFarlane, Parker, & Lominack, 1998). The five items of the AAS assess violence that women experienced in the last year. A positive response to any of the five items indicates women's victimization by the spouse and is coded as "1." The AAS was used previously in Jordanian women and yielded an alpha level of 0.70 (Al-Modallal, 2012b). Spousal violence was assessed in the current investigation because previous studies indicated its prevalence in the Jordanian community. For example, among working women, a prevalence rate of 48.5% was reported (Al-Modallal, 2010). Further, women from rural communities reported spousal violence

victimization as well. In a study recruiting women from refugee camps in Jordan, 43% of the participants reported experiences of spousal violence (Al-Modallal, 2012b).

General Health

General health status was assessed using the Global Self-Rated Health assessment, a single item measure. It is a measure that asks participants to rate their overall general health status on a 5-point rating scale ranging from "poor" to "excellent." The Global Self-Rated Health measure was used in a number of studies targeting participants of different physical and mental health problems (Cott, Gignac, & Badley, 1999; Krause & Jay, 1994). In national surveys, the Global Self-Rated Health measure was successfully used (Bowling, 2005). Further, it was used previously in Jordanian studies with working women (Al-Modallal, 2010; Al-Modallal et al., 2010).

Analysis Strategy

An analysis of demographic characteristics was performed initially based on the setting type (MOH or UNRWA health care center). Chi square test was performed to identify differences in demographic characteristics between attendees of MOH health care centers and attendees of UNRWA health care centers. Regarding the relationship between mental health and the type of health care center, independent samples *t*tests were performed. The independent variable was type of setting (MOH or UNRWA health care center) and the dependent variables were mental health problems.

Further, predictors of women's mental health problems were tested using multiple linear regression. Predictors of mental health were determined based on women's demographic characteristics that were significant when compared between attendees of MOH and UNRWA health care centers. A significance level of 0.05 was set to identify significant predictors.

RESULTS

Results indicated that there were significant differences in most demographic characteristics between women attending MOH health care centers and women attending UNRWA health care centers. Except for the number of children, exposure to spousal violence, and general health status, significant differences based on the women's age, marital status, level of education, income, place of residence, and type of job (p -value for all variables was < 0.05) were revealed between attendees of the two types of health care centers (see Table 1).

A comparison of the means of mental health problems among our participants indicated that, on average, there were small differences in the mean scores of mental health problems between attendees of MOH health care centers and attendees of UNRWA health care centers. A comparison of the differences in means of mental health problems among our participants based on the type of health care centers was further done using independent samples *t*-test. Results of independent samples *t*-test showed

TABLE 1
Comparison of Demographic Characteristics between Attendees of Health Care Centers (*N* = 620)

Characteristic	MOH ^a Centers <i>n</i> (%)	UNRWA ^b Centers <i>n</i> (%)	Chi Square Value (χ^2)	<i>p</i> -Value
Age			20.2	0.001
≤20 years	14 (4.0)	19 (7.6)		
21–30 years	125 (35.7)	123 (49.2)		
31–40 years	144 (41.1)	76 (30.4)		
41–50 years	57 (16.3)	25 (10.0)		
51–60 years	10 (2.9)	6 (2.4)		
≥61 years	0 (0.0)	1 (0.4)		
Marital Status			9.5	0.049
Married	330 (92.4)	237 (92.2)		
Engaged	16 (4.5)	7 (2.7)		
Other	10 (2.8)	13 (5.0)		
Children in the Home			2.7	0.60
No children	33 (9.3)	23 (8.9)		
1–3 children	188 (52.9)	124 (48.2)		
4–6 children	103 (28.9)	88 (34.2)		
≥7 children	31 (8.7)	22 (8.6)		
Education			42.5	<0.0001
≤6th grade	8 (2.2)	20 (7.8)		
7th–12th grade	120 (33.4)	108 (42.2)		
College degree	100 (28.0)	82 (32.0)		
Bachelor's degree	82 (23.0)	31 (12.1)		
Graduate study	47 (13.2)	15 (5.9)		
Income			24.4	<0.0001
Very low	104 (29.4)	119 (46.3)		
Low	202 (57.1)	116 (45.1)		
Medium	27 (7.6)	19 (7.4)		
High	14 (4.0)	2 (0.8)		
Very high	7 (2.0)	1 (0.4)		
Employment			31.5	<0.0001
Housewife	256 (71.5)	220 (86.3)		
Works at home (e.g., sewing, craft works)	12 (3.4)	15 (5.9)		
Employed	88 (24.6)	20 (7.8)		
Place of Residence			108	<0.0001
City	305 (85.0)	141 (54.9)		
Village	32 (8.9)	14 (5.4)		
Refugee camp	20 (5.6)	101 (39.3)		
Spousal Violence			8.2	0.15
0	239 (64.6)	162 (55.9)		
1	64 (17.3)	62 (21.4)		
2	25 (6.8)	29 (10.0)		
3	18 (4.9)	22 (7.6)		
4	16 (4.3)	9 (3.1)		
5	8 (2.2)	6 (2.1)		
General Health			5.6	0.35
Poor	8 (2.2)	4 (1.6)		
Fair	64 (18.0)	59 (23.2)		
Good	136 (38.2)	82 (32.3)		
Very good	99 (27.8)	76 (29.9)		
Excellent	49 (13.8)	32 (12.6)		

^aMOH = Ministry of Health

^bUNRWA = United Nations Relief and Works Agency for Palestine Refugees

that, except for sleepiness problems (t -test = -2.0 , $p = 0.03$), there were no significant differences in the mean mental health problems between attendees of MOH health care centers and attendees of UNRWA health care centers (see Table 2 for more information).

Table 3 presents significant predictors of each mental health problem based on women's demographic characteristics. Spousal violence and general health were the factors that predicted the majority of the mental health problems. For instance, spousal violence predicted seven different mental health problems (p -value for all mental health problems was < 0.001). Except for sleepiness problems and suicidal attempts, general health status was able to predict all other mental health problems that were investigated in this study (p -value for all mental health problems was < 0.005). Income predicted three mental health problems (depression, quality of life, and sleepiness problems) and the rest of the predictors predicted either one or two different mental health problems out of the eight mental health problems that were investigated in this study.

DISCUSSION

Findings of this study indicated that there were significant differences in demographic characteristics between attendees of MOH health care centers and attendees of UNRWA health care centers. However, there were no significant differences in mental health problems between the two groups. Further, it was found that many of the women's demographic characteristics predicted their mental health status. Among these characteristics are spousal violence, general health status, income, and level of education.

Our findings indicated that significant differences were found in the women who went to MOH health care centers and those who went to UNRWA health care centers. These differences mainly focused on the level of education, income, place of residence, and employment. As seen in Table 1, attendees of the UNRWA health care centers generally had a poorer socioeconomic profile than those who attended MOH health care centers. For example, 46% of the women who went to the UNRWA health care centers reported "very low" income compared to 29% of those who went to MOH health care centers. Similar findings apply to level of education and employment. The poor socioeconomic profile of attendees to the UNRWA health care centers is a reflection of the poor economic situation of refugee camps where many of the attendees of UNRWA health care centers reside. Refugee camps are congested areas with limited infrastructure facilities, in relation to number of residents, compared to other towns and cities in Jordan. Poverty among residents of refugee camps is evident. Poverty, in turn, limits people's educational achievement and negatively impacts their educational level, employment status, and family income.

A considerable number of the women's demographic characteristics predicted a variety of mental health problems in our participants. There are two reasons behind the relationship be-

tween mental health and women's demographic characteristics. One is that most mental health problems co-exist. This means that different mental health problems exist simultaneously in the same group of people. A number of studies in the literature support this claim (Houry, et al., 2006; Pico-Alfonso et al., 2006; Weingourt, Maruyama, Sawada, & Yoshino, 2001). In Jordanian literature, authors found that mental health problems co-exist in women as well (Al-Modallal, 2012a; Al-Modallal et al., 2012). Co-existence occurs when a person complains of one mental health problem and this complaint leads to experiencing another mental health problem(s). This phenomenon helps us understand how certain predictors, such as income and level of education, influenced two or three different mental health problems in the participants.

The second reason behind the observed relationship between mental health and women's demographic characteristics is related to untreated mental health problems. Mental health problems can make patients feel stigmatized (Edge, Baker, & Rogers, 2004). Stigma constitutes a barrier to seeking medical assistance for mental health complaints. Seeking medical assistance for mental health problems may not be a preferred option for the majority of Jordanian women. Although Jordanian women have not been well-studied regarding this phenomenon, a related study identified three major factors influencing women's help-seeking attitude for their depressive symptoms. These factors were the women's fear of being stigmatized and diagnosed with chronic mental illnesses, being unfamiliar with the symptoms associated with depression, and acknowledgement from health professionals that depressive symptoms were reasonable consequences of stressors, such as adversity, which made such symptoms unresponsive to treatment (Edge et al., 2004). These factors could apply to a majority of women, as well as to women in Jordan.

Income was a factor predicting three different mental health problems in our participants (depression, quality of life, and sleepiness problems). The income variable in this study represents family income rather than personal income. The culture and traditions in Jordan focus on partnership between couples in terms of providing for the family and its members. Due to economic hardship for some families in Jordan, working women are encouraged to help the husband in meeting family needs by sharing part (or all) of their salary with the husband. On the other hand, Allah (God) says in the Holy Quran [Muslims' Holy Book] "Men are in charge of women by [right of] what Allah has given one over the other and what they spend [for maintenance] from their wealth" (Surat An-Nisa' [The Women], The Holy Quran 4:34).

Despite women's beliefs in cultural and religious commands, the economic status of the families of our participants was still poor. This was related to the fact that most of our participants were housewives; meaning that they didn't have a personal source of income to share with the husband. Absence of personal income for women and a low income from the husband constituted a significant factor in predicting mental health status in women.

TABLE 2
Differences in Mental Health Problems between Attendees of MOH^a and UNRWA^b Health Care Centers

Mental Health Problem	MOH ^a	UNRWA ^b	Mean Difference	<i>t</i> -value	<i>p</i> -value
Depressive symptoms					
<i>M</i>	20.0	20.0	−0.004	−0.004	0.99
<i>SD</i>	11.5	11.6			
Stress					
<i>M</i>	18.7	18.9	−0.19	−0.35	0.72
<i>SD</i>	6.2	6.5			
Anxiety					
<i>M</i>	9.1	9.8	−0.77	−0.87	0.39
<i>SD</i>	10.2	10.5			
Self-esteem					
<i>M</i>	10.4	10.9	−0.50	−1.5	0.13
<i>SD</i>	3.9	3.5			
Quality of life					
<i>M</i>	6.5	6.2	0.27	1.4	0.16
<i>SD</i>	2.4	2.2			
Sleepiness problems					
<i>M</i>	7.1	7.9	−0.74	−2.1	0.03
<i>SD</i>	4.0	4.3			
Suicidal thoughts					
<i>M</i>	0.10	0.11	−0.01	−0.40	0.69
<i>SD</i>	0.30	0.31			
Suicidal attempts					
<i>M</i>	0.03	0.04	−0.006	−0.39	0.70
<i>SD</i>	0.18	0.19			

^aMOH = Ministry of Health

^bUNRWA = United Nations Relief and Works Agency for Palestine Refugees

Spousal violence was considered a good indicator of poor mental health status. Our finding is supported by a previous Jordanian investigation where significant relationships between mental health problems and women's experiences of spousal violence were found (Al-Modallal, et al., 2010). In addition, psychological partner violence, one type of spousal violence, provided significant associations with a number of mental health problems, including depression, stress, and anxiety, in women from rural Jordanian communities (refugee camps) (Al-Modallal, 2012a). Findings of the current study further add to the significance of spousal violence on a wide variety of mental health problems. This significance stems from the fact that the effects of spousal violence are not confined to certain mental health problems but rather extend to diverse mental health problems in victims of violence.

The general health status of our participants was a significant predictor for their mental health problems. This finding was in line with a previous investigation (Al-Modallal, et al., 2010) in Jordanian women. In their study, Al-Modallal and associates indicated that women diagnosed with chronic illnesses had a seven times higher risk of experiencing depressive symptoms compared to their counterparts without a chronic illness. Fur-

ther, and according to the WHO definition of health, "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (1948), it becomes noticeable that physical and mental aspects of health are connected. Therefore, impairment in one aspect of health, such as the physical aspect, would negatively predict impairment in another human aspect, such as the mental health aspect. Such relationships support and add to validity of our findings.

One more finding that needs to be stressed is that self-esteem and quality of life were two mental health variables that were predicted by four different demographic factors. This finding can be explained by the assumption that poor demographic characteristics, in terms of lowered education and low income, negatively impact women's quality of life. Quality of life, in turn, negatively affects women's self-esteem. A general look at women's characteristics indicated that the vast majority of them expressed having "very low" to "low" levels of income (Table 1). Women of low income are subject to a number of stressors, and the "low income" factor is among these stressors. One investigator (Lutenbacher, 2002) indicated that everyday stressors predicted low self-esteem in women. This assumption explains our finding and further indicates that lowered self-esteem and

TABLE 3
Predictors of Mental Health Problems Based on Women’s Demographic Characteristics

Mental Health Problem	Age	Marital Status	Children	Education	Income	Job	Residence	Violence	General Health
Depression <i>F</i> = 23.03 <i>p</i> < 0.0001	-0.03 ns	0.01 ns	0.03 ns	0.06 ns	-0.12 0.009	0.003 ns	0.03 ns	0.42 <0.0001	-0.30 <0.0001
Stress <i>F</i> = 10.55 <i>p</i> < 0.0001	0.06 ns	-0.09 0.04	-0.07 ns	-0.02 ns	-0.06 ns	-0.009 ns	-0.06 ns	0.26 <0.0001	-0.23 <0.0001
Anxiety <i>F</i> = 17.6 <i>p</i> < 0.0001	0.03 ns	-0.002 ns	0.05 ns	0.009 ns	-0.04 ns	0.04 ns	0.04 ns	0.35 <0.0001	-0.26 <0.0001
Self-esteem <i>F</i> = 8.40 <i>p</i> < 0.0001	-0.05 ns	-0.02 ns	-0.14 0.008	-0.12 0.03	-0.04 ns	-0.02 ns	0.08 ns	0.15 0.001	-0.22 <0.0001
Quality of life <i>F</i> = 20.4 <i>p</i> < 0.0001	-0.008 ns	-0.04 ns	0.03 ns	0.10 0.03	0.12 0.004	-0.03 ns	-0.03 ns	-0.33 <0.0001	0.24 <0.0001
Sleepiness problems <i>F</i> = 2.91 <i>p</i> = 0.002	0.03 ns	0.08 ns	0.03 ns	0.10 ns	0.13 0.01	0.01 ns	0.11 0.01	0.06 ns	-0.03 ns
Suicidal thoughts <i>F</i> = 13.8 <i>p</i> < 0.0001	-0.10 0.03	0.03 ns	0.03 ns	0.04 ns	-0.02 ns	-0.02 ns	-0.07 ns	0.38 <0.0001	-0.13 0.002
Suicidal attempts <i>F</i> = 4.12 <i>p</i> < 0.0001	-0.07 ns	0.001 ns	0.07 ns	-0.05 ns	0.007 ns	0.09 ns	0.03 ns	0.22 <0.0001	-0.02 ns

poor quality of life may co-exist in women of poor socioeconomic profile.

CONCLUSION

Women who visit health care centers in Jordan are generally characterized as women of “very low” to “low” family income. Women of higher levels of income or women who have private health insurance do not have a problem visiting private clinics for health assistance. Health care services provided in private clinics are more expensive than similar services provided by public health care centers such as the MOH and the UNRWA health care centers. Despite this reality, significant differences in women’s demographic characteristics existed between attendees of different health care centers. This difference mainly reflects the effect that surrounding circumstances have on individuals’ mental health status. This adds to the reliability of our findings in terms of recruiting a homogenous sample from the general Jordanian community regardless of the types of health care centers that our participants attended.

The lack of significant differences in mental health problems between women attending different health care centers is a reflection of the commonality of this problem in our com-

munity. High rates of mental health problems in a community could be reflected negatively in different forms, such as impaired family and social relationships, an increase in drug abuse, and an increase in family and community violence. This information is necessary as it aids clinicians and community workers to direct part of their efforts to women with such complaints.

Women’s demographic characteristics are considered significant predictors for their mental health status. Homogeneity of the selected sample helped us identify demographic factors that were significant in determining women’s mental health status. Women’s experiences of spousal violence, general health status, and their attitudes governing seeking medical assistance for mental health problems are factors explaining significant associations between demographic characteristics and mental health status of Jordanian women.

Mental health status is not an important focus for health professionals in primary care centers. However, health professionals working in such centers can play a very important role in identifying mentally ill women through screening. Referral of these women to appropriate institutions for treatment is another intervention that can help with complaints associated with chronic mental health problems.

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Finally, although we are confident about our results, convenience sampling limits confidence about the generalizability of the findings. Therefore, it is recommended that this study be repeated in a randomly selected sample of women from the Jordanian community.

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REFERENCES

- Al-Modallal, H. (2010). Screening depressive symptoms in Jordanian women: Evaluation of the Center for Epidemiologic Studies-Depression scale (CES-D). *Issues in Mental Health Nursing, 31*(8), 537–544.
- Al-Modallal, H. (2012a). Psychological partner violence and women's vulnerability to depression, stress, and anxiety. *International Journal of Mental Health Nursing, 21*(6), 560–566.
- Al-Modallal, H. (2012b). Patterns of coping with partner violence: Experiences of refugee women in Jordan. *Public Health Nursing, 29*(5), 403–411.
- Al-Modallal, H., Abuidhail, J., Sowan, A., & Al-Rawashdeh, A. (2010). Determinants of depressive symptoms in Jordanian working women. *Journal of Psychiatric and Mental Health Nursing, 17*(7), 569–576.
- Al-Modallal, H., Sowan, A. K., Hamaideh, S., Peden, A. R., Al-Omari, H., & Al-Rawashdeh, A. B. (2012). Psychological outcomes of intimate partner violence experienced by Jordanian working women. *Health Care for Women International, 33*(3), 217–227.
- Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychological Assessment, 10*(2), 176–181.
- Bonilla, J., Bernal, G., Santos, A., & Santos, D. (2004). A revised Spanish version of the Beck Depression Inventory: Psychometric properties with a Puerto Rican sample of college students. *Journal of Clinical Psychology, 60*(1), 119–130.
- Bowling, A. (2005). Just one question: If one question works, why ask several? *Journal of Epidemiology and Community Health, 59*(5), 342–345.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*(4), 385–396.
- Coker, A. L., Davis, K. E., Arias, I., Desai, S., Sanderson, M., Brandt, H. M., et al. (2002). Physical and mental health effects of intimate partner violence for men and women. *American Journal of Preventive Medicine, 23*(4), 260–268.
- Coker, A. L., Smith, P. H., & Fadden, M. K. (2005). Intimate partner violence and disabilities among women attending family practice clinics. *Journal of Women's Health, 14*(9), 829–838.
- Coker, A. L., Smith, P. H., Thompson, M. P., McKeown, R. E., Bethea, L., & Davis, K. E. (2002). Social support protects against the negative effects of partner violence on mental health. *Journal of Women's Health and Gender Based Medicine, 11*(5), 465–476.
- Cott, C. A., Gignac, M. A., & Badley, E. M. (1999). Determinants of self rated health for Canadians with chronic disease and disability. *Journal of Epidemiology and Community Health, 53*(11), 731–736.
- Department of Statistics. (2011). Jordan in Figures. Retrieved from http://www.dos.gov.jo/dos_home_e/main/index.htm
- Dienemann, J., Boyle, E., Baker, D., Resnick, W., Wiederhorn, N., & Campbell, J. (2000). Intimate partner abuse among women diagnosed with depression. *Issues in Mental Health Nursing, 21*(5), 499–513.
- Edge, D., Baker, D., & Rogers, A. (2004). Perinatal depression among black Caribbean women. *Health and Social Care in the Community, 12*(5), 430–438.
- Forte, T., Cohen, M. M., Du Mont, J., Hyman, I., & Romans, S. (2005). Psychological and physical sequelae of intimate partner violence among women with limitations in their activities of daily living. *Archives of Women's Mental Health, 8*(4), 248–256.
- The Holy Quran. (no date). English version. Retrieved from <http://quran.com>
- Houry, D., Kaslow, N. J., & Thompson, M. P. (2005). Depressive symptoms in women experiencing intimate partner violence. *Journal of Interpersonal Violence, 20*(11), 1467–1477.
- Houry, D., Kembal, R., Rhodes, K. V., & Kaslow, N. J. (2006). Intimate partner violence and mental health symptoms in African American female ED patients. *American Journal of Emergency Medicine, 24*(4), 444–450.
- Johns, M. W. (1991). A new method for measuring daytime sleepiness: The Epworth Sleepiness Scale. *Sleep, 14*(6), 540–545.
- Krause, N. M., & Jay, G. M. (1994). What do global self-rated health items measure? *Medical Care, 32*(9), 930–942.
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy, 33*(3), 335–343.
- Lutenbacher, M., (2002). Relationships between psychosocial factors and abusive parenting attitudes in low-income single mothers. *Nursing Research, 51*(3), 158–167.
- Martsof, D. S. (2004). Childhood maltreatment and mental and physical health in Haitian adults. *Journal of Nursing Scholarship, 36*(4), 293–299.
- Martsof, D. S., Sedlak, C., & Doheny, M. (2000). Codependency and related health variables. *Archives of Psychiatric Nursing, 14*(3), 150–158.
- Nilsson, G., Bengtsson Tops, A. B., & Persson, L. (2005). Childhood abuse in Swedish female users of psychiatric services. *Journal of Psychiatric and Mental Health Nursing, 12*(3), 365–371.
- Pico-Alfonso, M. A., Garcia Linares, M. I., Celda Navarro, N., Blasco Ros, C., Echeburua, E., & Martinez, M. (2006). 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, 15*(5), 599–611.
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*(3), 385–401.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Soeken, K. L., McFarlane, J., Parker, B., & Lominack, M. C. (1998). The Abuse Assessment Screen: A clinical instrument to measure frequency, severity, and perpetrator of abuse against women. In J. C. Campbell (Ed.), *Empowering survivors of abuse: Health care for battered women and their children*. (pp. 195–203). Thousand Oaks, CA: Sage.
- Thompson, M. P., Kaslow, N. J., & Kingree, J. B. (2002). Risk factors for suicide attempts among African American women experiencing recent intimate partner violence. *Violence and Victims, 17*(3), 283–295.
- Townsend, M. C. (2006). *Psychiatric/mental health nursing: Concepts of care in evidence-based practice* (5th ed.). Philadelphia, PA: F. A. Davis.
- United Nations Relief and Works Agency for Palestine Refugees. (2011). Retrieved from <http://www.unrwa.org/etemplate.php?id=66>
- Weingourt, R., Maruyama, T., Sawada, I., & Yoshino, J. (2001). Domestic violence and women's mental health in Japan. *International Nursing Review, 48*(2), 102–108.
- Weitzman, E. R. (2004). Poor mental health, depression, and associations with alcohol consumption, harm, and abuse in a national sample of young adults in college. *Journal of Nervous and Mental Disease, 192*(4), 269–277.
- World Health Organization. (1948). WHO definition of Health. Retrieved from <http://www.who.int/about/definition/en/print.html>
- World Health Organization. (2009). Violence against Women. Retrieved from <http://www.who.int/mediacentre/factsheets/fs239/en/print.html>
- Zauszniewski, J. A., & Bekhet, A. K. (2009). Depressive symptoms in elderly women with chronic conditions: Measurement issues. *Aging & Mental Health, 13*(1), 64–72.
- Zauszniewski, J. A., & Graham, G. C. (2009). Comparison of short scales to measure depressive symptoms in elders with diabetes. *Western Journal of Nursing Research, 31*(2), 219–234.