Psychological Wellbeing of Saudi Patients Diagnosed with Chronic Illnesses

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Abstract

Patients' psychosocial status interferes with their ability to manage their physical needs independently affecting health care outcomes. The purpose of this study was to investigate the psychological wellbeing of patients diagnosed with chronic illnesses in Saudi Arabia. A cross sectional survey using 412 patients diagnosed with chronic illnesses has been used to collected data in regards to depressive symptoms, psychological distress and life satisfaction. 17.5% of the patients reported that they had moderate to severe depressive symptoms, and about 50% of them had high level of life satisfaction, moderate level of psychological distress. There were significant association between patients' age and depression ($r = .17$, $p = .003$), while no significant correlation with life satisfaction and psychological distress ($p > .05$). Positive and significant correlation found between period of diagnosis and life satisfaction ($r = .16$, $p = .010$), and negative and significant correlations with psychological distress ($r = -.13$, $p = .029$). Also patients were different in the level of life satisfaction relation to medical diagnoses ($F_{5412} = 2.74$, $p = .019$). Patients with chronic illness are in need for psychological care, and periodic psychological screening is one step toward maintaining their psychological wellbeing.

Keywords

1. Introduction

Health reform requires assuming more attention towards chronic diseases for their significant role in reforming

health research and interventions. Health researchers are became more interested in the comorbidity between chronic physical conditions and psychosocial health consequences such as depression and psychological distress. Previous studies showed that patients with chronic illnesses suffer psychological stressors due to requirement related to management of their physical health problems (Doumit & Nasser, 2010). However, patients' psychosocial status may interfere in their ability to manage their needs independently which exacerbates their health condition (Sareen, Cox, Clara, & Asmundson, 2005). It has been found that patients with chronic health conditions suffer number of psychological disturbances such as anxiety and depressive feelings that delays their recovery and healing process (Harter, Conway, & Merikangas, 2003; Katon, Lin, & Kroenke, 2007). Therefore, patients with chronic health conditions such as cardiovascular problems, diabetes mellitus, pulmonary disease, and cancer are suffering psychological disturbances while struggling to manage their physical illnesses (Sareen et al., 2005).

The comorbidity of psychological problems with chronic illnesses called for more attention to psychological consequences and its impact on health care outcomes (Al Abeiat, Hamdan-Mansour, Ghannam, Azzeghaiby, & Dawood, 2014; Khalil, DarAwwad, Al-Gamal, & Hamdan-Mansour, 2012). Studies showed that psychological difficulties and psychological follow up care were associated with increased morbidity, mortality, expenditure of health services, and burden of caregivers (Dawani, Hamdan-Mansour, & Ajlouni, 2014; Sullivan, Simon, Spertus, & Russo, 2002; Wang et al., 2006). In addition, health care professional may sacrifice psychological care and focus only on patients' physiological needs resulting to negatively influencing patients' prognosis and poor treatment outcomes (Frasure-Smith & Lespérance, 2006; Rozanski, Blumenthal, Davidson, Saab, & Kubzansky, 2005). According to Chen and Chang (2012), individuals' adjustment to chronic illnesses and their evolved changes of lifestyles have a direct impact on the bio-psycho-social aspects of individual's health. In previous national study (Aboshaiqah, 2014) and similar studies in the Arab region (Al Abeiat et al., 2014; Khalil et al., 2012; Hamdan-Mansour, Farhan, Othman, & Yacob, 2010; Hamdan-Mansour & Marmash, 2007) individuals with chronic illnesses have reported number of psychological disturbances such as depression psychological distress and low self efficacy, and those with psychological problems have identified number of physical health problems such as headache low body pains and sleeping problems. Therefore, issues related to social wellbeing, psychological distress, depression and life satisfaction considered important in understanding the process of health-illness continuum, and have not been investigated adequately among the Saudi population.

Managing chronic illnesses is the main concern for policy makers in the Arabian region and particularly in Saudi Arabia. However, the information related to psychological status of patient with chronic illnesses is limited. There is a need to explore the psychological and social wellbeing of those patients especially with the increased cost and demands for health care services globally. Therefore, the *purpose* of this study was to investigate the psychological health status of patients with chronic illnesses in Saudi Arabia. The specific aims were:

- To describe the psychological wellbeing; depression, psychological distress and life satisfaction of patients diagnosed chronic illnesses in Saudi Arabia.
- To identify the differences psychological wellbeing of patients diagnosed chronic illnesses in Saudi Arabia in relation to selected demographic and personal characteristics; age, gender, working status, medical diagnosis, and period of diagnosis.

2. Method

2.1. Design

A quantitative approach using cross-sectional, descriptive-correlational design was used to examine correlates of depression among patients with chronic illness. Data was data from patients diagnosed with diabetes mellitus-type-II, Rheumatoid arthritis, CAD (Cardiovascular Disease), cancer, and pulmonary diseases from two major tertiary hospitals in Saudi Arabia. Information collected in regards to depression, psychological distress, and coping using self reported questionnaire.

2.2. Sample and Settings

A convenience sampling of 412 completed and retuned the questionnaire. A total of 600 patients approached and invited to study participation and 412 completed and retuned the questionnaire with a response rate of 69%. The study targeted patients attending primary, secondary and tertiary care units. Inclusion criteria include: 1) diag-

nosed with one of the following chronic illness longer than 6 months: diabetes mellitus-type-II, Rheumatoid arthritis, CAD, cancer, and pulmonary diseases; 2) age of 18 years or above. Exclusion criteria included: no history of diagnosed mental or cognitive disorders.

2.3. Data Collection Procedure

Prior data collection, ethical approval obtained from the IRB (Institutional Review Board) at King Saud University, and the targeted institutions. Data collected using self report format of data collection at patient's convenience. Patients who expressed interest to participation in the study were approached by the researcher who explained the study and provided them with all details and answered all their questions. Patients were asked to sign the consent form that included information related to the title of the study, its purpose, its significance and a statement informing the participants that their privacy would be protected by assuring them that their responses will be treated confidentially, and information that reveal their identity will not be recorded. Also, the information will be used for the purpose of the study, and that their participation is voluntary and they have the right to withdraw at any time during the study and that their decision will not influence the quality of care they receive. Anonymity of the respondents ensured during and after study completion; and data secured and saved to provide anonymity. Interviews conducted by trained research assistants at private rooms or patients' rooms upon their convenience. Filling the survey required about 25 minutes and patients who need more time was given opportunity to take break and research assistants retuned to complete filling the questionnaire. The whole package presented in Arabic language.

2.4. Instruments

The data collected using an Arabic version of self-reporting questionnaires. **The Instruments were:**

1) The Beck Depression Inventory-II (BDI-II) (Beck, Steer, & Brown, 1996) was used to assess patients' depressive symptoms, which contain items that measure cognitive-affective symptoms and attitudes, impaired performance, and somatic symptoms (Beck et al., 1996). This instrument contains 21 questions answered on a four-point Likert scale in which 0 represents the absence of symptoms and 3 represents an extreme problem. The total range of 0 to 63 and standard cutoff points as follow: 0 - 13 indicates no or minimal symptom, 14 - 19 indicates mild symptoms, 20 - 28 indicates moderate symptoms, and 29 - 63 indicates severe symptoms (Beck et al., 1996). A score of 13 is the cut-off point indicating depression. The test–retest r was .88, and Cronbach's Alpha is .87 (Beck et al., 1996). In this study, Cronbach's Alpha was .79.

2) Stress was measured using the brief form of Psychological Stress Measure (Lemyre, Tessier, & Eillion, 1990). The original Psychological Stress Measure (PSM) was designed using 49 items drawn from descriptors generated by focus groups on stress. The scale is unifactorial in structure and maintains a test-retest stability of .68 to .80 under apparently constant conditions ((Lemyre et al., 1990). Patients checks the answer that best indicates the degree to which each statement has applied to him/her recently The responses made on a Likert scale and ranged from range from 1 (null) to 4 (much). The higher the score in the scale reflect higher level of psychological stress. In this study, Cronbach's Alpha was .81.

3) Life satisfaction was measured using the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). This is a general measure of life satisfaction, which consisted of five statements. Participants were asked to rate each statement according to the following seven-point scale: 1) strongly disagree; 2) disagree; 3) slightly disagree; 4) neither agree nor disagree; 5) slightly agree; 6) agree; and 7) strongly agree. The scores of the total scale ranges from 5 to 35 and interpreted as follow: from 31 - 35 (eextremely satisfied), from 26 - 30 (satisfied), from 21 - 25 (slightly satisfied), 20 (neutral), from 15 - 19 (slightly dissatisfied), from 10 - 14 (dissatisfied), and 5 - 9 (extremely dissatisfied). The test-retest reliability was estimated to be .87 (Diener et al., 1985). In this study, Cronbach's Alpha was .76.

Potential covariates: Gender, age, marital status, type of disease, duration of disease, smoking status, income, Education level and work status. The demographic information obtained from an investigator-developed subject profile.

2.5. Data Analysis Plan

The Statistical Package for Social Science (SPSS 20) software (IBM, Chicago, IL, USA) was considered as suitable software for data entry, storage and analysis. Descriptive statistical analysis such as frequency count,

percentage, mean, median and standard deviation was employed to describe the research sample. The Pearson product moment correlation coefficient was used to describe the association between variables. T-test for two independent samples (or ANOVA as appropriate) was used to compare means and differences. Statistical significance was set at $p > .05$.

3. Results

3.1. Descriptive Characteristics

A total number of 412 patients completed the questionnaire (see **Table 1**). Patients' age ranged from 18 to 98 years, with mean of 44.2 (SD = 16.8). About 33.3% (n = 138) of the patients there were male patients, while 66.6% (n = 272) were females. In regard to marital status, the majority of them 28.7% (n = 243) were married, while 5.3% (n = 25) were divorced, and 20.8% (n = 85) were single, and 12.8% (n = 53) were widow. The analysis also showed that most of patients (58.5%, n = 242) were not working, and 21.0% (n = 87) of them had a full time work, 13.0% (n = 54) had retired, where the least percent 4.5% (n = 19) of patients had a part time work.

In regard to their medical diagnosis, the analysis showed that 32.5% (n = 134) of the patients had diabetes mellitus type-II, 17.5% (n = 72) had cardiovascular disease, 15.5% (n = 64) had pulmonary diseases, 19.8% (n = 81) had rheumatoid arthritis, and 14.7% (n = 60) had cancer.

3.2. Psychosocial Health Factors

Depression: Regarding depressive symptoms, the analysis (see **Table 2**) showed that the patients had a mean score of 14.7 (SD = 10.8) with scores ranging from 0 to 55. About 50% of the patients had a score of 13 or above. In regards to level of depression, the analysis showed that 41.1% (n = 170) of the patients found to have no or minimal depressive symptoms, while 13.8% (n = 57) had mild depressive symptoms, 6.8% (n = 28) had moderate depressive symptoms, and 18.4% (n = 83) had severe depressive symptoms. The analysis indicates that about 45% of the patients are suffering from moderate to severe depressive symptoms compared to 55% with no to mild depressive symptom.

Life satisfaction: Regarding patients' satisfaction about their life (see **Table 2**), the analysis showed that patients had a mean score of 24.5 (SD = 6.3) with scores ranging from 7 to 35. Considering that the possible range of score is 5 - 35, and that the analysis showed that 50% (n = 206) of the patients had a score of 25 or above and 50% of them had a score between 20 and 29, the results indicate that patients, in general, had high level of satisfaction about their life.

Psychological distress: Regarding patients' psychological distress level (see **Table 2**), the analysis showed that patients had a mean score of 38.9 (SD = 11.9) with scores ranging from 12 to 70. Considering that the possible range of score is 9 - 72, and that the analysis showed that that 50% (n = 206) of the patients had a score of 40 or above and 50% of them had a score between 31 and 47, the results indicate that patients, in general, had moderate level of psychological distress.

3.3. Differences in Psychological Factors Related to Demographic Characteristics

Regarding the relationship between selected demographic characteristic and psychosocial factors, the analysis showed that there was a significant and positive correlation between patients' age and depression ($r = .17$, $p = .003$).while, there was no significant correlation between patient's age and psychological distress or life satisfaction ($r = .03$, $p = .609$; $r = .02$, $p = .692$, respectively). The results indicate that that older patients are more likely to have higher level of depressive symptoms while there is no difference in psychological distress and life satisfaction min relation to age. Regarding relationship between period of diagnosed with chronic illness and psychological factors, analysis showed that there is a positive and significant correlation between period of diagnosis and life satisfaction ($r = .16$, $p = .010$), and negative and significant correlations with psychological distress ($r = −.13$, $p = .029$). However, no significant correlation found between period of diagnosis and depression symptom ($r = .004$, $p = .946$). The analysis infers that patients with longer period of diagnosis with chronic illness are more likely to have lower level of psychological distress and higher level of life satisfaction.

Regarding gender differences, the analysis showed that there was significant difference between male and female patients in their psychological distress (t = −4.0, $p > .001$) with female patients having higher mean score of psychological distress (M = 36.0, SD = 10.6) than male patients (M = 35.2, SD = 11.5). While there were no

Table 1. Descriptive characteristics of patients diagnosed with chronic illnesses (N = 412).

Variable		n
Gender	Male	138
	Female	272
Marital status	Single	85
	Married	243
	Widow	53
	Divorced	25
Working status	Not working	242
	Part-time job	19
	Full time job	87
	Retired	54
Level of education	>High school	169
	High school	104
	Diploma	32
	Bachelor	80
	Graduate	11
Medical diagnoses	Diabetes mellitus	134
	Cardiovascular	72
	Pulmonary	64
	Cancer	60
	Rheumatoid arthritis	81

Table 2. Psychological factors of patients diagnosed with chronic illness (N = 412).

Variable	N	M	SD	Min	Max	P$_{25}$	P$_{50}$	P$_{75}$
Depressive symptoms	412	14.7	10.8	0.0	55	6.0	13.0	23.0
Life satisfaction	412	24.5	6.3	7.0	35	20.0	26.0	29.0
Psychological distress	412	39.0	11.6	12.0	70.0	31.0	40.0	47.0

P$_{25}$: percentile 25th. P$_{50}$: percentile 50th (Median). P$_{75}$: percentile 75th.

significant differences found in relation to depressive symptoms (t = −.63, p = .530) and life satisfaction (t = −.40, p = .682) although female patients had higher level of depressive symptoms and life satisfaction.

To examine the differences in psychological factors in relation to working status, one-way ANOVA was conducted. The analysis showed that there was no significant difference in depressive symptoms, psychological distress and life satisfaction related to working status (p > .05). regarding differences in psychological factors related to medical diagnosis using one-way ANOVA (see **Table 3**), the analysis showed that there were significant differences related to medical diagnoses in patients' life satisfaction (F_{5412} = 2.74, p = .019). Using post hoc comparison (Scheffe), the analysis showed that patients diagnosed with diabetes mellitus Type-II are significantly different (had lower mean score) (M = 23.3, SD = 6.4) from those diagnosed with more than chronic illness (comorbid) and cancer. The results indicate that patients diagnosed with diabetes mellitus Type-II cancer had less level of life satisfaction than those diagnosed with cancer or those who have more than one medical problem (comorbid). On the other hand, there were no significant differences in depressive symptoms and psychological distress in relation to medical diagnoses (p > .055).

4. Discussion

Exploring and assessing factors related to psychological wellbeing among patients diagnosed with chronic illnesses became a primary concerns and requirement for health professional caring for this group of people

Table 3. Difference in psychological factors of patients diagnosed with chronic illnesses related to their type of illness (N = 412).

Variable		n	M	SD	F	p
Depressive symptom	Pulmonary	6	34.2	10.9		
	CVD	56	37.5	10.7		
	Cancer	90	34.0	10.7	2.02	.074
	Rheumatoid arthritis	84	37.9	10.5		
	DM-II	39	33.3	12.7		
	Comorbid	56	34.6	10.2		
Psychological distress	Pulmonary	5	45.2	5.5		
	CVD	60	41.5	12.0		
	Cancer	99	37.9	11.6	1.50	.190
	Rheumatoid arthritis	99	39.8	10.3		
	DM-II	48	36.9	11.8		
	Comorbid	63	38.0	13.0		
Life satisfaction	Pulmonary	6	20.3	10.4		
	CVD	64	25.2	6.4	2.75	
	Cancer	101	24.7	5.0		
	Rheumatoid arthritis	105	23.3	6.4		**.019**
	DM-II	50	24.0	7.3		
	Comorbid	69	26.3	6.1		

(Honyashiki et al., 2011). Moreover, previous studies emphasized the negative impact of psychological wellbeing on physical health condition of patients with chronic diseases (Hamdan-Mansour, 2010; Hamdan-Mansour, Halabi, & Dawani, 2009). This study aimed at examining the psychological wellbeing of patients diagnosed with chronic illnesses in Saudi Arabia. The study found, in general, that patients diagnosed with chronic illnesses in Jordan suffer psychological disturbances. A significant number of patients (17.5%) reported having moderate to severe depressive symptoms, and about 50% of them had high level of life satisfaction, and moderate level of psychological distress. Demographic variables of patients had varied effect on psychological wellbeing of patients. While age had positive association with depression, period of diagnosis with depression was associated with positively with life satisfaction and psychological distress. Moreover, the study found that gender contributed to psychological distress and depression found to be significantly different in terms of medical diagnosis of patients and medical diagnosis.

International studies aimed at detecting prevalence of psychological disturbances among patients with chronic illness were controversial. While depression reported to be common among patients with chronic illnesses (Anderson, Freedland, Clouse, & Lustman, 2001; Freedland et al., 2003) similar to findings in this study, others (e.g., Niti, Ng, Kua, Ho, & Tan, 2007) found that depressive symptoms was less prevalent among patients with chronic illnesses than those with acute illnesses. The literature has also showed that chronic illnesses increased the vulnerability to psychological stressors and psychosocial co-morbidity (Doumit & Nasser, 2010; Honyashiki et al., 2011) which agrees with the results of this study. Although our study supports those who found that depressive symptoms are prevalent among patients with chronic illnesses, however; we have found that patients had moderate to high level of life satisfaction and moderate level of depression. One possible explanation is that patients had depressive feeling, however; they have also utilized available sources of their life that might enabled them to counterbalance the effect of psychological distress. The results support Lewinsohn's model that patients with chronic illnesses are at risk for depression if their illness affected their ability to function (Lewinsohn et al., 1985). In this study, patients possibly utilized resources available to them to maintain their function that resulted in maintaining their life satisfaction. The study also emphasized the role of length time of being diagnosed with chronic disease as those with longer period were more satisfied about their lives. In conclusion, Saudi patients with chronic illness are suffering psychological disturbances, however; they were able to maintain

their psychosocial wellbeing that positively reflected on their satisfaction about their life.

This study also found that female patients had higher scores in depression, psychological distress and life satisfaction. The results agree with previous studies (e.g., Freedland et al., 2003, Hamdan Mansour et al., 2014) that female patients had higher scores in depression than male patients, and add to the body of knowledge that gender is significant factors to emphasize while investigating psychological wellbeing among patients diagnosed with chronic disease. Moreover, this study compared three psychosocial factors among five types of chronic illnesses and found that there were significant differences among the five types of chronic illnesses in their life satisfaction, while they were not different in their level of depression and psychological distress. The study disagree with previous study conducted in Jordan (Al-Abeiat et al., 2014), a neighbor country with similar culture and health care system, who has found differences between patients with chronic disease in their level of depression and psychological distress. One explanation is that patients in Saudi Arabia receive counseling services at primary and tertiary care levels that might partially contribute to manage distress and depression. However, the study still addressing the prevalence of psychological disturbances among Saudi people with chronic diseases.

One limitation for this study is that data were cross sectional. A longitudinal study may allow better understanding for a cumulative experience over long period of time.

5. Conclusion

Health care professionals are challenged to meet patients' needs with the increased health care demands and high cost of treatment. Psychological needs are amongst that required immediate attention. This study found that although patients had moderate levels of depression and psychological distress, patients were satisfied about their lives. Sociodemographic factors, period of diagnosis, and type of illness had varied impact on psychological wellbeing among patients. The study has an implication for health professionals at the community and primary care settings. There is a need to consider a longitudinal approach to examine differences according to illness stage that will allow addressing the stages of illness and its psychosocial impact. Also, there is a need to assess and screen for psychosocial factors; psychological distress, depression, life satisfaction among patients with chronic illnesses in their routine checkups and visits to outpatients units and those hospitalized. There also a need to assess effectiveness of counseling services and available community resources provided at Saudi health care settings.

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