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Evaluation of Mental Health Status in Caregivers of Patients with Chronic Psychiatric Disorders

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Abstract: The aim of this study was to evaluate mental health status in caregivers of patients with chronic psychiatric disorders. This descriptive-analytic study performed in Mazandaran Province Northern Iran from 2007 to 2008. Two hundred caregivers of patients with sever psychiatric disorders completed (GHQ-28) and Demographic questionnaire. Sever psychiatric disorders is referred to patients with schizoaffective or schizophrenia or bipolar mood disorder that at least 2 years was passed from onset of disease. Data were analyzed in descriptive statistical method with SPSS soft ware. Thirty five percent of caregivers had GHQ>23 and no mental health. Significant association found between patients age, age of onset of disease with GHQ Score ($p = 0.0001$). Caregivers' GHQ score correlated with marital status in patients, although this was not significant ($p = 0.08$). The χ^2 test didn't show significant relationship between duration and type of disease and patient's sex and caregiver's sex with GHQ score. According to the results of our study, it seems that further investigations with more samples and other questionnaires need to evaluate of caregivers requirements and it is suggested that a logical planning be conducted by the authorities, to decrease caregivers' burden.

Key words: Caregiver, psychiatric disorders, mental health status, GHQ score

INTRODUCTION

Psychiatric disorders are as old as human life. There have been negative attitudes regarding psychiatric disorders among different societies. Over the past three decades, epidemiological studies in Iran have shown an alternation in the presence of psychiatric disorders from 11.7 to 43.2% (Asadollahi, 1999; Noorbala *et al*., 2002). It is predicted that the prevalence of psychiatric disorders and their undesired personal, familial and social effects, have increased simultaneously with population growth and urbanity. According to Nourballa *et al*. (2002) survey in 2001, the prevalence of psychotic disorders is at least 2-2.5% among social populations (Sadock and Sadock, 2002). Nearly, 50-80% of psychotic patients lived with one of their relatives (Lehman and Steinwatchs 1998), thus, most of their relatives are perceived as a high psychological burden. Burden means outcome result from existence of a chronic psychiatric patient on her/his family or caregiver (Biegel *et al*., 1995).

With regard to limitation in psychiatry health care services for patients with chronic psychiatric disorders in our country, their families have a critical role in taking care of the patients. Also, participation of the family caregivers in taking care and psychological rehabilitation of these patients has an important role on improvement of their quality of life and social behaviors (Middelboe, 1997). For this reason, psychiatric patients' families have to be considered as a main source of patients' caregivers. These families require special notices in terms of health issues. Providing chronic psychiatric patients' caregivers requirements and consideration of their stress is necessary (Hsiao, 2010). High levels of burden associated with significant emotional stress among caregivers will increase the risk of recurrence of the disease and rehospitalization of the patient (Bulzlaff and Hooley, 1998; Scazufca and Kuipers, 1998).

Increased caregivers' burden decreases their mental health status. This in turn, may result in increasing psychiatric stress of caregivers and decreasing of their participation in pateint's care.

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Co-morbidities such as depression, substance addiction and suicidal behaviors among patients with psychiatric disorders will increase the psychiatric stress of caregivers (Blanchard *et al*., 2002). Previous studies have reported that family caregivers of patients with chronic psychiatric disease suffer from higher levels of burden than family caregivers of patients with Alzheimer's disease, cancer or chronic renal failure (Partiante and Carpiniello, 1996; Afgheh *et al*., 2008).

Also, several studies have found a correlation between patient's stress such as negative symptoms and frequent re-hospitalization with an increase of caregivers' burden (Martens and Addington, 2001). However, such a correlation has not been reported in other studies (Lowyck *et al*., 2001). Previous studies have found that the prevalence of psychiatric problems was 41-94% among chronic psychiatric patients' caregivers. Also, demographic factors including gender, race and severity of the disease play an important role in the presentation of these disorders (Ostman *et al*., 2000).

Symptoms of depression and psychosomatic complains were more prevalence among schizophrenic patients' caregivers (Jungbauer *et al*., 2002). There are not sufficient reports about schizophrenic patients' caregivers' mental status. In one study, there was a low tendency of family caregivers to take care of chronic psychiatric patients after discharge from hospital (Peyman *et al*., 2005).

With regard to the importance of caregivers' health status and limitation of literature on this subject, the aim of this study was to evaluate the health status of caregivers of patients with chronic psychiatric disorders.

MATERIALS AND METHODS

In this cross-sectional study approved by ethics committee of Mazandaran University of Medical Sciences in 2007, 200 caregivers who had to take care of patients with sever psychiatric diseases for at least one year were studied and a written informed consent form was signed by all participant prior to intervention. Patients with severe psychiatric disease consisted of patients with schizophrenia, bipolar disorder and/or schizoaffective disorder who had been ill for a period of two years. The caregivers completed a General Health Questionnaire (GHQ-28) (Williams and Goldberg, 1988), including 28 questions and scaled based on degree scaling system using Likert (1932) scoring system (0-3). Total score was varied between 0 and 84 and the cut off point was 23. In this test, four different aspects of somatic symptoms, anxiety symptoms, sleep disorders and depressive symptoms were assessed. GHQ test is an international standardized test and its validity and reliability has been confirmed. In addition to GHQ, demographic characteristics of patients and their caregivers were collected.

The sample size was 200 cases according to confident coefficient (CI) 95% (α = 0.05) and power of 90%. Data was analyzed using SPSS software for Windows (Version 13.0) and descriptive indices such as mean, median, mode and Standard Deviation (SD) were used to express data. The correlation between demographic characteristics and GHQ score was assessed using the χ^2 test.

RESULTS

Two-hundred caregivers of patients with sever psychiatric diseases filled out the GHQ and demographic checklist. Of these, 105 (52.5%) were male. Most of them had moderate social welfare (156 caregivers, 78%), 30 (15%) had good and 14 (17%) had low levels of social welfare. 121 caregivers (60.5%) lived in urban areas and 79 (39.5%) were residents of rural areas. demographic characteristics of the caregivers are shown in Table 1.

Table 1: Demographic characteristics of sever psychiatric patients' Caregivers

Variables	No.	Percent
Age		
<20 years	5	2.5
20-29 years	25	12.5
30-39 years	41	20.5
40-49 years	39	19.5
29.5	45	22.5
≥60 years	45	22.5
Relationship to patient		
Parents	84	42.0
Siblings	46	23.0
Spouse	47	23.5
Child	14	7.0
Relative	9	4.5
Others	0	0.0
Level of education		
Illiterate	66	33.0
Primary school	45	22.5
Junior high school	45	22.5
high school	29	14.5
≥Diploma	15	7.5
Care giving duration		
2-3 years	21	10.5
3-5 years	56	28.0
5-10 years	56	28.0
≥10 years s	67	33.5
Employment		
Unemployment	6	3.0
Housewife	88	44.0
Worker or Farmer	48	24.0
Officer	21	10.5
Specialist	6	3.0
Businessman	31	15.5

Table 2: Demographic characteristics of sever psychiatric patients

Variables	No.	Percent
Age		
<20 years	4	2.0
20-29 years	79	39.5
30-39 years	69	34.5
40-49 years	31	15.5
29.5	13	6.5
≥60 years	4	2.0
Duration of disease		
2-5 years	62	31.0
5-10	70	35.0
10-15	36	18.0
>15	32	16.0
Level of education		
Illiterate	66	33.0
Primary school	45	22.5
Junior high school	45	22.5
High school	29	14.5
≥Diploma	15	7.5
OPD refer		
<5 times	39	19.5
5-9"	34	17.0
10-14"	27	13.5
15-19"	26	13.0
= 20"	74	37.0
Admission		
No admission	5	2.5
1-2 times	105	52.5
3-4"	54	27.0
≥5"	36	18.0
Age of onset		
<20 years	59	29.5
20-29 years	92	46.0
30-39 years	35	17.5
40-49 years	12	6.0
29.5	2	1.0
≥60 years	0	0.0

Out of 200 patients, twelve were employees (6%) and 188 (94%) were unemployed. Eighty-one patients (40.5%) were single, 89 (44.5%) had a marital status of couples and 30 (15%) had divorced or were widowed. Bipolar disorders, schizophrenia and schizo-affective disorders were seen in 121 (60.5%), 71 (35.5%) and 8 (4%) patients, respectively. Demographic characteristics of the patients are shown in Table 2.

Demographic characteristics of the caregivers were compared with healthy people (GHQ = 23). The correlation between GHQ and gender and marital status are shown in Table 3. According to the results, there was a significant correlation between the patients' age and onset of disease with GHQ; as the patient's age increased, the health status of caregivers was decreased synchronously ($p = 0.0001$).

No significant relationship was found between duration of the disease ($p = 0.9$), kind of disease ($p = 0.8$) (Fig. 1), gender of the patient ($p = 0.8$), gender of the caregiver ($p = 0.8$) and educational level ($p = 0.517$) (Fig. 2) with GHQ score in caregivers. There was not a statistically significant correlation between caregivers' GHQ scores with marital status `patients ($p = 0.08$).

Table 3: The correlation between GHQ score and gender and marital status of caregivers

	Female		Male		Married		Single		Divorce or death	
Variables	No.	%	No.	%	No.	%	No.	%	No.	%
GHS>23	37	35.2	35	36.8	42	47.2	21	25.9	10	33.3
GHS≤23	68	64.8	60	63.2	47	52.8	60	74.1	20	66.7
Total	105	100	95	100	89	100	81	100	30	100

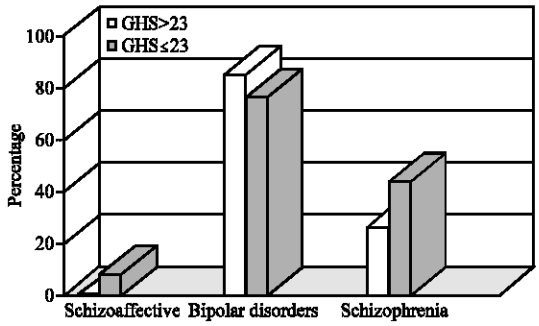

Fig. 1: The correlation between GHQ score and kind of disease in caregivers

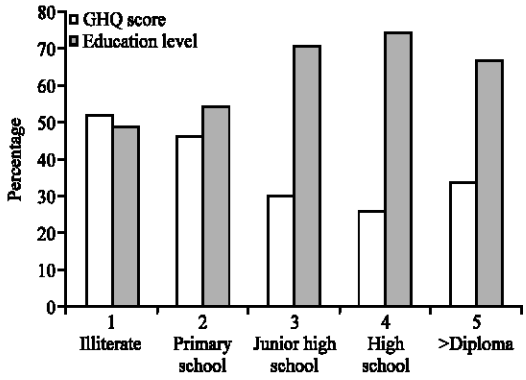

Fig. 2: The correlation between GHQ score and education level in caregivers

DISCUSSION

According to the results of this study, the prevalence of mental illness among the caregivers was 35% (i.e., GHQ >23). This is similar to Pereira and Almeida (1999) findings in Portugal who showed a prevalence of 41% of mental illness in caregivers of psychiatric patients.

In a study by Kelly and Newstead (2004), they reported which 7% of caregivers have health problem and 81% are in critical condition for damage to themselves or other by patients.

Ostman *et al.* (2000) evaluated the correlation between mental health status and psychological stress of people. They found a positive relationship between these two variables. Also, in a similar study by

Angermeyer *et al.* (1997) in Germany, one-third of severe psychiatric patients' caregivers had moderate psychiatric stress, while, one-third of them had severe psychiatric stress. The significant differences between the prevalence of mental illness in their study and the results of the present study may be due to the type of questionnaires applied. Because in the study of Germany, the caregivers answered to open questions via postal address, delivered questionnaire and there was no interview with them (Angermeyer *et al.*, 1997). In the study, studied populations were assessed from different psychological aspects beyond total GHQ score. Their findings indicated that anxiety was the most psychological problem (33.5%) and the least problem was related to depressive symptoms (13.5%) (Angermeyer *et al.*, 1997). Therefore, 54% of people were suffering from one aspect of moderate (48%) to sever (6%) psychological problem. Also, Steele *et al.* (2010) in a review article reported the presence of psychiatric symptoms in caregivers, such as depression, anxiety and increased mental health service use.

Comparison of the results of previous studies with Perlick *et al.* (1999) findings in the US, who reported the prevalence of psychological problems in 93% of the caregivers (severe in 54% and moderate in 39% of caregivers), shows significant differences. It may be due to different tools of evaluation, as they used Social Behavior Assessment Schedule (SBAS) test for this reason.

We also studied the correlation between GHQ score and demographic variables. We concluded that there is a direct relationship between age of onset of the disease and GHQ score, older patient and longer duration of disease and mental health status of their caregivers. This finding can be interpreted by cultural structure of Iranian relatives, while there is a direct relation between cultural integration and mental health status. When the people develop severe psychiatric diseases, after identification of themselves as aged, it can severely disturb their family integration and mental health status of their caregivers. Perlick *et al.* (1999) found no significant correlation between patients' age, age of onset of the disease and GHQ of the caregivers. The differences can be due to cultural variations of the two societies. Another factor that can affect this diversity is that only 53% of caregivers lived with the patients in Perlick *et al.* (1999) study and in leman and gibbons study, 50-80% of persons with sever mental disorders live with a caregiver or have regular contact with a family. Whereas, in our study 100% of caregivers lived with their patients in a same accommodation.

The marital status of the patients also influenced caregivers' mental health status. Caregivers of married patients had higher GHQ score in comparison with caregivers of single, divorced or widowed patients. The higher prevalence of mental illness among caregivers of married patients may be due to the higher responsibility of the patent's family that was forced on the caregiver.

Type of disease had no effect on GHQ score. This finding is similar to the results of Jenkins and Schumacher (1999) study in the US and Pereira and Almeida study in Portugal. In another study, the gender of patient or caregiver was considered significant (Ostman *et al.*, 2000), but we found no correlation in this regard.

Regarding the importance of mental health status in caregivers, further studies with large sample sizes and different evaluating tools, such as IEQ and SBAS questionnaires for comparing the results are recommended.

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