

Prevalence of Psychological Problems among Multiple Sclerosis Patients

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Abstract: Aim: Patients with chronic conditions such as multiple sclerosis are at high risk of mental health problems. Knowledge about the prevalence of depression, anxiety and stress in multiple sclerosis is needed for planning and intervention. This study examines the prevalence of depression, stress and anxiety among multiple sclerosis patients.

Methods: This study employed a descriptive design and was conducted in Mazandaran, Iran. Data were collected between November and October 2014. The sample was selected using convenience sampling from all those who presented for follow up in Mazandaran MS center. Data were collected using a demographic variables checklist and the Depression, Anxiety, Stress Scale 21 (DASS-21). All statistical analyses were performed using SPSS software (v18.0, PASW Statistics) and a variable was considered to be statistically significant if $P < 0.05$.

Results: A final total of 40 patients were enrolled in the study. The mean age of the participants was 33.1 years (SD: 6.8, range: 20-49). The mean scores for depression, anxiety and stress were 10.02 ± 4.8 , 8.02 ± 3.8 and 7.80 ± 3.44 respectively. In total, some level of depression, anxiety and stress was reported by 90%, 90% and 92% of patients respectively.

Conclusion: The rate of depression, stress and anxiety among multiple sclerosis patients is high. Health care provider should be aware of this and planned for prevention and management.

Keywords: Chronic disease, multiple sclerosis, depression, stress, anxiety, Iran.

1. INTRODUCTION

Multiple sclerosis (MS) is a rare chronic inflammatory and demyelinating disease of the central nervous system [1, 2, 3, 4, 5, 6]. MS that is most common cause of severe non traumatic disability in young and middle-aged adult characterized by its chronic course with intermittent relapses, finally ending up with a severe debilitation [1, 7]. The incidence and prevalence of MS disease varies considerably around the world [8]. It is estimated that 2,300,000 people around the world have MS [9]. According to finding of previous study, Iran has the highest prevalence of multiple sclerosis in the Middle East and Asia [10].

Patients with chronic conditions often develop mental health problems, most commonly depression, stress and anxiety that may worsen the disease and these may also affect the patient's ability to self-manage that disease [11, 12]. For example in an Iranian study, Rafiei et al., examined the level of depression, anxiety and stress among ostomy patients; a total of 87%, 92.1% and 71% patients in this study were suffering from depression, anxiety and stress respectively [12]. Similar to other chronic disease, patients with MS disease usually experience several symptoms that have negative impact on patients' well-being and quality of life. Most symptoms that experienced by these patients are fatigue, weakness, visual disturbances, impaired mobility, dizziness, pain, spasticity, bowel and bladder incontinence, cognitive impairment, sleep disorders and mood symptoms [13, 14, 15].

In recent years there have been several studies investigating the prevalence of psychological problems in patients with chronic diseases; however, studies of multiple sclerosis have been very limited, despite the significant negative consequences of psychological problems on patients' health and quality of life. The present study has been conducted to examine prevalence of depression, anxiety and stress in one group of multiple sclerosis patients.

2. METHODS

This study employed a descriptive design and was conducted in Mazandaran, Iran. Data were collected between November and October 2014. The sample was selected using convenience sampling from all those who presented for follow up in Mazandaran MS center. Inclusion criteria were patients aged 20-45 years, who had expanded disability status rated 0 – 5.5 according to the medical board, and who consented to participate. Those who had a past history of psychiatric illnesses prior to MS diagnosis and who had any acute illness and requiring hospitalization were excluded. A final total of 40 patients were enrolled in the study. Consent was implicit by respondents' decision to return the completed questionnaire. Patients were assured that all data would remain anonymous, be kept confidential and be stored safely. Ethical approval was obtained from Tarbiat Modares University prior to the collection of any data.

Patients were provided with questionnaire packages containing a demographic-variables questionnaire—including age, sex, marital status, type of MS, duration of disease and the Depression, Anxiety, Stress Scale 21 (DASS-21). Participants answered the demographic questionnaire and DASS-21 individually. The DASS-21 is a 21-item self-report questionnaire and measured the three related negative emotional states of depression, anxiety and stress. Each item is scored from 0 to 3. Previous studies have determined the validity and reliability of the Iranian version of DASS-21 [16, 17].

Descriptive statistics (mean and standard deviation), Pearson correlation coefficient used for data analysis. All statistical analyses were performed using SPSS software (v18.0, PASW Statistics) and a variable was considered to be statistically significant if $P < 0.05$.

3. RESULTS

The mean age of the sample (n: 40) was 33.1 years (SD: 6.8, range: 20-49), 57.5% were married, and 20% currently employed. On average, patients had multiple sclerosis for 1.77 years (SD: 1.1, range: 1-20). Disease course was broken down as follows: relapsing-remitting 75%; secondary progressive 25%. The mean score for depression was 10.02 ± 4.8 . A total of 90% of patients reported some degree of depression (*Table 1*). The mean score for anxiety was 8.02 ± 3.8 . In total, 90% of the participating patients reported some level of anxiety (*Table 1*). The mean score for stress was 7.80 ± 3.44 . In total, 92% of the participating patients reported some level of stress (*Table 1*).

Table 1: Severity of depression, anxiety and stress in study patients

Severity	Depression	Anxiety	Stress
Normal	10%	10%	7.5%
Moderate	67.5%	72.5%	80%
Severe	22.5%	17.5%	12.5%

4. DISCUSSION

Comorbid depression, anxiety and stress are associated with increased mortality and healthcare use in chronic diseases [12]. These events affect multiple sclerosis patients' quality of life negatively. Despite these negative consequences, the identification and management of comorbid depression, anxiety and stress in multiple sclerosis patients is inadequate especially in developing countries. The present study has examined the level of depression, anxiety and stress in multiple sclerosis patients. According to the findings of the present study, multiple sclerosis patients experience high levels of depression, anxiety and stress.

After patients are diagnosed as multiple sclerosis, they are faced with many stressors that can affect their psychological health. These include adaptation to several sign and symptoms, preparation for self-care, impacts on social life and daily activities, alteration of sexuality and individual relationships, enormous economic burden and nature of disease.

Results of limited previous studies have shown similar findings to the results of the present study. Dehghani et al., examined the depression in 110 multiple sclerosis patients; they used the beck depression scale. Of 110 patients who participate in Dehghani et al., study, 94% reported some level of depression (46% mild, 26% moderate and 22% severe). Factors such as patients' educational level, frequent disease recurrence and family economic status increased the risk of a patient developing depression [18]. In other study, Korostil & Feinstein examined prevalence rates and clinical correlates of anxiety disorders in patients with multiple sclerosis.; they used Hospital Anxiety and Depression Scale (HADS). The lifetime prevalence of any anxiety disorder in Korostil & Feinstein study was 35.7%, with panic disorder (10%), obsessive compulsive disorder (8.6%), and generalized anxiety disorder (18.6%), the most common diagnoses obtained. Subjects with an anxiety disorder were more likely to be female, have a history of depression, drink to excess, report higher social stress and have contemplated suicide [19]. They also reported that factors such as sex, history of depression, drink to excess higher rate of social stress increased the risk of a patient developing anxiety [19]. In other study in 2015, Alsaadi et al., examined the prevalence of depression and anxiety among patients with multiple sclerosis in UAE. Results of Alsaadi et al., study revealed that 17% and 20% of their sample suffered from major depression and severe anxiety [20].

5. CONCLUSION

According to finding of present study and most previous studies, multiple sclerosis patients not only suffer from physical disability but also experience psychological distress more often. Health-care providers should be aware of this and plan for prevention. Interventions can include: Providing education regarding the multiple sclerosis and this treatment, screening multiple sclerosis patients for depression, anxiety and stress, encouraging patients to engage in self-care, building social networks among multiple sclerosis patients, providing long-term, ongoing counseling, education patients regards sign and symptoms of psychological distress, use of simple strategy for decrease stress and anxiety such as prayer, meditation, exercise and yoga.

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