Comparative Analysis of Spouse’s Burden and Quality of Life in Major Depressive Disorder and Bipolar I Disorder

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Abstract: Background: Spouses of patients with bipolar disorder may experience a different quality of life and burden than seen with major depressive disorder.

Objective: This study was conducted to comparatively analyse spouse’s burden and quality of life in major depressive and bipolar disorders.

Methods: This cross-sectional study was conducted on 220 spouses of patients with major depressive and bipolar disorders in the city of Hamadan in Iran, in 2018. Data collection tools included Zarit Burden and QOL-BREF questionnaires. Data were analyzed by a t-test using SPSS -16.

Results: The findings showed that 11.8% of spouses of patients with depression and 85.5% of spouses of patients with bipolar disorder experienced severe burden (P < 0.001). The quality of life of spouses of patients with bipolar disorder was lower than with depressive disorder (P < 0.05). In both the groups, a negative correlation was found between burden and QOL.

Conclusion: The spouses of patients with bipolar disorder experience more burden and lower quality of life than depression. In both the groups, burden has a negative impact on the quality of life. Professional help and supportive intervention can be provided to the spouses of patients with major depressive and bipolar I disorders to reduce their burden, strengthen their coping skill and thus improve their QOL.

Keywords: Burden, quality of life, bipolar disorder, major depressive disorder, spouse, Zarit burden.

1. INTRODUCTION

Mood disorders, including major depressive disorder (MDD) and bipolar I disorder (BID), are the most serious and debilitating psychiatric disorders that millions of people in the world suffer from [1]. Mood disorders were identified by the World Health Organization (WHO) in its 2017 annual report as one of the most common causes of morbidity and mortality in developed countries [2]. Major depressive disorder and bipolar disorder together caused a lower quality of life, loss of productivity, and chronic impairment than ischemic heart disease and cerebrovascular disease. In high-income countries, mood disorders were considered to be among the most burdensome diseases when measured by the productive years of life lost because of a disability [3].

Mood disorders are the major cause of suffering for patients, but the burden it indirectly imposes upon spouses and caregivers is a matter of increasing clinical concern [4]. Living with patients with mood disorders is associated with a quality of life and burden. The term burden includes the psychological, social, and financial strain that caring for a relative with mental illness imposes on the caregiver [5].

Spouses of people with BID may experience a different burden and quality of life than seen with MDD patients. Individuals with BID often show loss of insight, resulting in resistance to treatment, financial difficulties, illegal activities and substance abuse. Other associated problems include occupational or educational failure and divorce [6, 7]. Individuals with BID may often have difficulty maintaining steady employment and, as a result, may suffer from social and economic disadvantages [8]. Perlick et al. (2001) found that 93% of caregivers of patients with bipolar disorder reported a moderate or higher degree of caregiving strain when their relative was admitted to a psychiatric facility and 70% con-
continued to report moderate or higher burden 15 months later [9]. Shamsaei et al. reported that bipolar disorders affect the mental health, social interaction and quality of life of caregivers by showing an association between the occurrence of infectious disease episodes in caregivers and the severity of bipolar disorder symptoms exhibited by the patient. [10].

Many people with mood disorders returned to live with their families in the community. Therefore, spouse and family members have been involved along with professionals in helping patients to ameliorate the impact of mental illness [11].

In Iran, the spouses of patients not only provide practical help and personal care but also offer emotional support to their relative with a mental disorder. Therefore, it is necessary to deepen the knowledge of burden in this population of caregivers. Despite increasing studies in recent years [12-15], there are few research on the effects of burden and quality of life in spouses of patients with mood disorders. Also, the quality of life of spouses of patients with mood disorders is directly related to the burden of the illness. Based on these facts, this study aims to compare the burden and quality of life in spouses of patients with MDD and BID. Data on this topic could contribute to changes in the strategies for supporting spouses, and thereby promote improvement of mental health.

2. MATERIALS AND METHODS

2.1. Design and Participants

This is a cross-sectional analytical descriptive study that was conducted on the patients of Farshchian Psychiatric Hospital of Hamadan city in Iran. Data were collected from July to December 2018.

A total of 220 spouses of patients including 110 bipolar I disorder patients and 110 major depressive disorder patients were selected after homogenization by convenience sampling.

The 220 cases were divided into two groups with a confidence level of 95%, test power of 80%, SD=38 error=%5.5, and sample loss of 10% using the following formula:

\[ n = \frac{Z^2 \times \alpha^2}{\sigma^2 (d)^2} \]

The inclusion criteria were: spouses aged 18 or above; living with the patient for at least last 1 year; able to speak and write simple Persian. Exclusion criteria were: spouses of patients with comorbid psychiatric or chronic physical illness; spouses who are taking care of another family member for either psychiatric or physical illnesses than the index patient; spouses with disturbances in cognitive functioning/memories and history of psychiatric disorders.

2.2. Instruments

Data collection tools included: demographic questionnaire (age, gender, relationship to the patient, patient diagnosis, education level, occupational and marital status), World Health Organization Quality of Life Scale - BRIEF Version (Persian) and the Zarit Burden Interview (ZBI).

World Health Organization Quality of Life Scale - BRIEF Version (Persian): The World Health Organization Quality of Life Scale - Brief Version is a 26-item, self-administered questionnaire. Subjects assess their satisfaction with each item in the past 2 weeks on a 5-point scale (from 1 = very dissatisfied to 5 = very satisfied). The 26 items can be divided into four subscales: physical health, psychological health, social relationships, and environmental factors. The scale has well-established psychometric properties and has been widely used in different cultures. The Cronbach’s alpha values for this scale and its subscales ranged from 0.684 to 0.810, indicating an acceptable level of internal consistency [16]. In this study, a Persian version of the questionnaire was used [17]. In the present study, the Cronbach’s alpha value for the WHOQOL-Brief application was 0.84, indicating good internal consistency.

Zarit Burden Interview (ZBI): Burden symptoms of the caregivers were assessed using the Zarit Burden Interview (ZBI), which was developed to assess caregiver burden in relatives of patients with chronic mental illnesses. The ZBI consisted of 22 items. Responses to each of the 22 items in the ZBI were made on five-point Likert scales from 0 (never) to 4 (nearly always). The overall burden was assessed by the total score of all the items, with a higher score representing greater caregiving burden [18]. The instrument was validated in Iran among the caregivers of patients with mental disorders. Overall Cronbach’s alpha was 94% and the intra-cluster correlation that was obtained by comparing the overall score of the questionnaire in the pre-test and test phase was 97% [19].

After signing the consent form, the participants were given a self-administered questionnaire. Since some participants were in their old age and might also be illiterate, the research team provided special assistance to facilitate the completion of their questionnaire. The participants were assured of the voluntary nature of the survey and of the fact that declining to participate in the survey would have no adverse effects on their use of services. It took around 35 minutes to complete the questionnaire.

2.3. Analysis

Data were analyzed using the SPSS-16 software and descriptive and analytical statistics including Chi-square test, Fisher’s exact test and t-test. The chi-square test and Fisher’s exact test were used for the comparison of socio-demographic characteristics and Zarit burden scores of spouses of patients with BID and MDD, and the t-test was used for the comparison of mean of Quality of Life scale. A significance level of 5% and power of 80% were considered in all of these tests.

3. RESULTS

3.1. Sample Characteristics

The demographic characteristics of two spouses’ populations are presented in Table 1. There were statistically significant differences in sex and occupational and education
level distribution among the two groups. There was no significant difference in age and duration of caregiving distribution among the two groups.

Analysis of the results of Zarit burden score showed that 11.8% of the spouses of patients with major depressive disorder had severe burden and 30.9% had moderate burden but in the spouses of patients with bipolar I disorder, 85.5% had severe and 14.5% had a moderate burden, which showed a significant difference between the two groups (Table 2). There was a significant difference between the two groups in the burden score ($X^2=130.78$, $p<0.001$).

Table 3 shows that the mean and standard deviation of the quality of life of spouses of patients with bipolar I disorder (40.22±18.73) was lower than with major depressive disorder (68.18±14.82). This difference was statistically significant ($t=-12.27$, $p<0.001$). In other words, the spouses of

<table>
<thead>
<tr>
<th>Groups</th>
<th>BID</th>
<th>MDD</th>
<th>$X^2$</th>
<th>$P$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>N (%)</td>
<td>N (%)</td>
<td>&lt;0.001</td>
<td>$X^2=18.3$</td>
</tr>
<tr>
<td>Female</td>
<td>82 (74.5)</td>
<td>51 (46.4)</td>
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<td></td>
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<tr>
<td>Male</td>
<td>28 (25.5)</td>
<td>59 (53.6)</td>
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</tr>
<tr>
<td>Occupational</td>
<td></td>
<td></td>
<td>&lt;0.001</td>
<td>$X^2=28.19$</td>
</tr>
<tr>
<td>Housewife</td>
<td>41 (37.3)</td>
<td>28 (25.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skilled worker</td>
<td>35 (31.8)</td>
<td>14 (12.70)</td>
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<tr>
<td>Unskilled worker</td>
<td>18 (16.8)</td>
<td>34 (30.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
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<td>4 (3.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retired</td>
<td>14912.70</td>
<td>30 (27.3)</td>
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<tr>
<td>Educational Level</td>
<td></td>
<td></td>
<td>&lt;0.002</td>
<td>$X^2=19.24$</td>
</tr>
<tr>
<td>Elementary</td>
<td>16 (14.5)</td>
<td>22 (20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate</td>
<td>45 (22.7)</td>
<td>33 (30)</td>
<td></td>
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</tr>
<tr>
<td>High school</td>
<td>24 (21.8)</td>
<td>31 (28.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>45 (40.9)</td>
<td>24 (21.8)</td>
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<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td>&lt;0.6</td>
<td>$X^2=1.52$</td>
</tr>
<tr>
<td>≤ 25</td>
<td>6 (5.5)</td>
<td>5 (4.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26-35</td>
<td>24 (21.8)</td>
<td>28 (25.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36-45</td>
<td>36 (32.7)</td>
<td>41 (37.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46≥</td>
<td>44 (40)</td>
<td>36 (32.7)</td>
<td></td>
<td></td>
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<tr>
<td>Duration of care (month)</td>
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<td></td>
<td>&lt;0.7</td>
<td></td>
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<tr>
<td>Mean ± SD</td>
<td>81.13 ± 86.77</td>
<td>84.9 ± 93.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZBI</td>
<td>BID</td>
<td>MDD</td>
<td>$X^2$</td>
<td>$P$ value</td>
</tr>
<tr>
<td>------</td>
<td>-----</td>
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<td>-------</td>
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<tr>
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<td>0</td>
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<td>85.5</td>
<td>13</td>
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<tr>
<td>total</td>
<td>110</td>
<td>100</td>
<td>110</td>
<td>100</td>
</tr>
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</table>

Table 1. Comparative of socio-demographic characteristics of spouses in BID and MDD.

Table 2. Comparison of mean scores of Burden (ZAB) in spouses of patients with MDD and BID.
patients with bipolar disorder had a lower quality of life than the spouses of patients with depressive disorder.

In Table 4, results of the regression analyses showed that the score of burden had a significant negative correlation with all the quality of life subscales in the two groups (P<0.001). In other words, with the increasing severity of burden, the quality of life decreases.

4. DISCUSSION

The purpose of this study was to evaluate and compare the burden and quality of life in spouses of patients with major depressive and bipolar I disorder. There are several key findings from this study that may provide future research methods and intervention strategies to support the needs of spouses of these patients, who are often a neglected population.

The findings of this study showed that 30.9% of the spouses of patients with MDD had a moderate level of care burden and 85% of the spouses of patients with BID had a severe level burden. Despite an encouraging number of studies investigating the burden in family caregivers of patients with mental illness, few studies compared the differences between spouses of patients with MDD and BID. These results are inconsistent with previous studies that reported high levels of burden in caregivers and spouses of patients with BID worldwide [5, 7, 20-23].

The majority of caregivers of people with BID report at least a moderate level of burden, with around 90% reporting high subjective burden in relation to their relative’s symptoms [20, 23]. Caregiving is also associated with increased risk of psychological problems, with up to 46% experiencing anxiety and depression [22]. The level of burden and mental health problems experienced by caregivers may be linked to the severity of the patient’s symptoms and the caregiver’s level of social support [8].

The findings from a study by Zhou et al. showed that the care burden was greater in family caregivers of acute BID patients than in caregivers of schizophrenia patients [24]. Also, Ogilvi et al. (2005) reported that the care burden on family caregivers of patients with BID is significantly higher than on family caregivers of patients with MDD [21].

This remains partly in line with the results of Chakrabarti et al., who showed that the family burden of the relatives of patients suffering from mood disorders was significant, but the diagnosis of BID implied heavier burden compared to MDD [25]. This may be the case due to the characteristics of BID because bipolar patients report more difficulties with work-related performance, social and leisure activities, and social and family interactions than MDD patients [26].

In our study, the results indicate that the spouses of BID patients had significantly poorer QoL than the spouses of patients with MDD.

Similar findings have been reported by a number of studies that examined the quality of life of caregivers of patients with mental illness [10, 27, 28]. The spouses of people with BID experience different challenges than with other illnesses. These people are affected by social and cultural factors which have important effects on the level of burden experienced and the quality of life [19]. Manic episodes of the illness are very disruptive to daily life, work and family relationships. Great expectations may be placed on family members involved in caregiving [20].
Most spouses of the patients suffering from BID experience a significant disruption in social relationships and leisure time (mainly when the patient is unwell), especially with the partners. The negative impact of the illness also affects issues such as relationships with family and acquaintances, which result in the narrowing of social network and stigmatization and decreases the quality of life as well. In addition, it should be emphasized that the spouses of those with BID feel isolated and forced to sacrifice their social life more often than in the case with other mental illness [7, 22].

The most important finding of this study was the negative correlation between burden and quality of life of spouses of BID and MDD patients. It was observed that an increase in spouses’ burden resulted in poor functioning of psychological, environmental and social relationship domains of the quality of life. Several studies suggested a negative correlation between care burden and quality of life in caregivers of chronic patients [25-29]. Caqueo-Urízar et al. (2017) reported a significant and inverse correlation between the quality of life and care burden in caregivers of schizophrenia patients [27]. Grant et al. concluded that the care burden is also related to the quality of life of patients, so that, over time, reduced quality of life of the caregivers leads to decreased quality of life of the patients [29]. Overall, care burden affects caregivers’ quality of life and may result in reduced care provision and deteriorating condition of the patients with mood disorders. The deterioration of patient’s condition can increase the care burden and cause a vicious cycle, and if timely intervention is not done, it may lead to gradual exhaustion of the caregivers [30, 31]. Therefore, necessary support is required for the spouses of BID and MDD patients, and various governmental and non-governmental facilities and privileges should be provided to these people.

Limitation: The current study has a number of limitations. The convenience sampling method may limit the generalizability of research outcomes. The cross-sectional design has the disadvantage of only analyzing the research outcomes at a certain point in time. This is a hospital-based sample with subjects who have been treated with medication with a regular follow up. Hence the results cannot be generalized to the community.

Implementation: Psycho-social education to the spouses of patients in the community to achieve the necessary skills for a daily living must be included in the management plan.

CONCLUSION

Studies measuring QOL and burden among the spouses of BID and MDD patients can help initiate early intervention among the vulnerable spouses. This would also help the health professionals to identify those caregivers who are at high risk of physical problems and psychological distress. Thus, by increasing awareness among the professional health care workers, they can be more sensitive to stress and burden experienced by the families, which affect their quality of life. More studies are necessary to better understand the phenomenon of burden and quality of life in Iran. In addition, the psychosocial network of public mental health services should offer strategies and interventions, such as family therapy groups, psycho-education programs, and physical and leisure activities for spouses to help prevent or minimize the effects of burden in this population. This can improve the QOL of spouses thereby improving the QOL of mentally ill patients.

CURRENT & FUTURE DEVELOPMENTS

The present study shows that the spouses of persons who are suffering from mood disorders report significantly higher levels of burden, which affects their quality of life. Hence, understanding the problems and needs of patients with mood disorders and their spouses can also help in improving the outcome of illness and spouses’ quality of life.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The study was approved and supported by the Ethics Committee of Hamadan University of Medical Sciences, Iran, (IR. Umsha. REC.1397.746).

HUMAN AND ANIMAL RIGHTS

No Animals/Humans were used for studies that are basis of this research.

CONSENT FOR PUBLICATION

The spouses of patients were recruited in the study after an informed consent was obtained from them as well as their respective patients.

AVAILABILITY OF DATA AND MATERIALS

The data that support the findings of this study are available from the corresponding author Dr. F.S., upon reasonable request.

FUNDING

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CONFLICT OF INTEREST

The authors declare no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

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