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ASSESSMENT OF FUNCTIONAL AND PSYCHOSOCIAL SITUATIONS AMONG PATIENTS WITH RHEUMATOID ARTHRITIS

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ABSTRACT
The purpose of this study was to assess functional, emotional, social and psychological situations among patients with rheumatoid arthritis. This study was conducted with descriptive and cross-sectional study. A total of 306 patients with rheumatoid arthritis enrolled in from the rheumatology polyclinics in a university hospital in Manisa, Turkey (West Anatolian). The data were collected by means of socio-demographic form, Health Assessment Questionnaire and the Mental Health Continuum Short Form. Descriptive and correlation were used in statistical analysis. The average age of the patients were 49.7±11.8 (23-60) years, 70.6% of them were female. It was found that the mean of Health Assessment Questionnaire score was 15.7±13.7 (0-60), the mean of the Mental Health Continuum Short Form score was 43.3±14.5 (1-70) among patients with rheumatoid arthritis. A negative correlation was defined between Health Assessment Questionnaire and the Mental Health Continuum Short Form ($r=-0.39$ $p<0.05$). The results of this study indicated that the patients who rheumatoid arthritis experience moderate level of functional, emotional and psychosocial well-being. In addition, a better functional status of the patients associated with a higher level of emotional and psychosocial well-being.

Keywords: Rheumatoid arthritis, emotional well-being, psychosocial well-being

ROMATOİD ARTRİTLİ HASTALARIN FONKSİYONEL VE PSİKOSOSYAL DURUMLARININ DEĞERLENDİRİLMESİ

ÖZET
Bu çalışmada amaç romatoid artritli hastaların fonksiyonel ve psikososyal durumlarının değerlendirilmesidir. Tanımlayıcı ve kesitsel tipteki araştırma, Manisa ilinde bir üniversite hastanesinin romatoloji polikliniklerinden sağlık bakım hizmeti alan 306 romatoid artritli hasta ile yürütüldü. Araştırmada veriler, sosyodemografik soru formu, Sağlık Değerlendirme Anketi (SDA) ve Ruh Sağlığı Sürekliliği Kısa Formu (RSS-KF) ile toplandı. Verilerin değerlendirilmesinde tanımlayıcı istatistiksel analizler ve korelasyon analizi kullanıldı. Araştırmaya

katılan romatoid artritli hastaların yaş ortalaması 49,7±11,8 (23-60) yıl olup büyük çoğunluğu (%70,6) kadın idi. Romatoid artritli hastaların SDA puan ortalaması 15,7±13,7 (0-60), RSS-KF puan ortalaması 43,3±14,5 (1-70) olarak bulundu. SDA ile RSS-KF puan ortalamaları arasında istatistiksel olarak negatif yönde anlamlı ilişki olduğu belirlendi. Araştırma sonuçları, romatoid artritli hastaların fonksiyonel, sosyal, duygusal ve psikolojik durumlarının orta düzeyde olduğu ve fonksiyonel iyilik halleri arttıkça sosyal, psikolojik ve duygusal iyilik hallerinin de arttığını gösterdi.

Anahtar Kelimeler: Romatoid artrit, emosyonel iyilik, psikososyal

INTRODUCTION

Rheumatoid arthritis (RA) is a long term inflammatory condition that reasons joint stiffness, pain, and fatigue. It is known that RA more commonly affects female patients younger than age 40 (1-3). A larger number of studies have been conducted to estimate the prevalence of RA in different geographic locations with varying prevalence rates in different regions and ethnic groups worldwide. Many of those studies were community based epidemiologic studies and among them, those using similar methodology have generated similar prevalence rates varying from 0.5 to 1% (1). The prevalence of RA in Turkey is between 0.22 and 1% which is similar to other countries (2). The specific cause of RA is not known; however, that rheumatoid arthritis is the result of an autoimmune disorder. It is not curable but drug therapy can be used to reduce inflammation. Patients, who have RA, often experience functional limitations and several symptoms due to joint and systemic inflammation (4-6). Social, psychological, emotional and physical function can affect more often in RA due to chronic stress caused by the drug therapy (e.g. due to large doses of glucocorticosteroids), chronic inflammation and disability (7). Patients may also experience psychosocial and emotional challenges. The literature confirmed that early psychosocial assessment provides early intervention for patients with RA, and early intervention is more effective than later intervention in the course of rheumatoid arthritis (8-10). There is the role of the nurse in addressing psychosocial and emotional challenges to optimise the physical and psychological status of each patient (3). Hence, nurses should assess functional and psychosocial symptoms of the patient with RA such as pain, fatigue, impaired physical mobility, social isolation, loneliness, self-esteem deficit, disturbed body image, lifestyle or role changes, ineffective coping (10-12). Several studies have investigated social support, body perception, self-esteem, self-care agency, quality of life, functional impairments, anxiety and depression among patients with RA (6-18). There has been less research conducted with investigating functional and psychosocial situations in patients with RA (19-23). The aim

of this study was to assess functional, psychological, social and emotional well-being among patients with rheumatoid arthritis.

MATERIALS and METHOD

This cross-sectional survey was carried out from May to December 2017 among patients with rheumatoid arthritis who presented to the rheumatology polyclinics of a university. The sample size of the research was calculated using Epi Info version 3.01. The prevalence of rheumatoid arthritis was observed to be varying from 0.22 to 1% in Turkey (2). An odds ratio was applied to measure the strength of association and was reported with 95% confidence interval, 1% deviation and 1% prevalence. Throughout the study, about 1540 patients with RA applied to the rheumatology polyclinics. Of these, through simple random sampling, 306 patients who agreed to participate were included in this study.

The inclusion criteria were as follows: between 18 and 65 years of age, had been one and over year's diagnosis of rheumatoid arthritis, able to establish verbal communications, no eyesight and hearing problems, and to be willing participant.

Data collection

Data were collected using a sociodemographic form, the Health Assessment Questionnaire, and the Mental Health Continuum Short Form by the first author through face to face interviews. Each interview took approximately 30 min.

Sociodemographic form

The sociodemographic form consisted of personal information such as gender, age, medical history, duration and complication of RA.

The Health Assessment Questionnaire (HAQ)

HAQ was developed in order to assess of functioning and disability for rheumatic disease. The HAQ has performed 20 activities of daily living with four response categories. The points ranged from 0 (no disability) to 3 (full disability). If the score below 0.5 it is considered to normal; if the score above 1.5 it is indicated to severe disability (24). The Turkish version HAQ

was validated in 2004. Cronbach' alpha for the Turkish version of HAQ was 0.97 (25). In the present study, alpha coefficient was found 0.96 for the HAQ.

Mental Health Continuum-Short Form (MHC-SF)

MHC-SF was developed in order to evaluate of positive mental health. The scale was conducted on the 14 items and 5-point Likert scale which was composed of 3 sub-factors: 'psychological well-being', 'emotional well-being', 'social well-being'. The MHC-SF score ranged from 0 to 70. No cut-off point of the scale but higher scores indicate higher psychological, emotional and social well-being (26). The Turkish version MHC-SF was validated in 2015. Cronbach' alpha for the Turkish version of the MHC-SF was 0.74 (27). In the current study, alpha coefficient was found 0.87 for the MHC-SF.

Statistical analysis

Data were analyzed using SPSS version 15.0. Sociodemographic characteristics and scores of scales were analyzed using arithmetic averages, standard deviation and percentages. Pearson's correlation analysis was used to examine the association between HAQ and MHC-SF variables. $p < 0.05$ was considered statistically significant.

Ethical considerations

The study was endorsed from the Research Ethics Committee (Ref. no.: 12/04/2017/20.478.486). Participants were informed about the study's procedural details, purpose, potential benefits and risks, and their right. All participants were only included after they provided written consent forms.

RESULTS

The average age of the patients was 49.7±11.8 (23-60) years; the majority of them were women (70.6%). Of the 306 patients interviewed, 32.7 percent a mean RA duration of less than a year and also 37.9% of the participants had been under treatment for less than a year (Table 1).

Table 1. Sociodemographic and illness characteristics among patients with rheumatoid arthritis (n=306)

Characteristics	n	%
Gender		
Female	216	70.6
Male	90	29.4
Marital status		
Married	246	80.4
Single	60	19.6
Educational status		
Primary school	217	70.9
High school	69	22.5
University and Post graduate education (MSc, PhD)	20	6.5
Working status		
Yes	98	32.0
No	208	68.0
Lack of work		
Yes	68	22.2
No	238	77.8
Income		
Low	85	27.8
Moderate	201	65.7
High	20	6.5
Insurance		
Yes	292	95.4
No	14	4.6
Living with		
Spouse	103	33.7
Children	13	4.3
Spouse and children	138	45.0
Alone	33	10.8
Other	19	6.2
Family member with rheumatoid arthritis		
Yes	124	40.5
No	182	59.5
Duration of rheumatoid arthritis		
Less than a year	100	32.7
1-5 years	93	30.4
6-10 years	50	16.3
11 years and above	63	20.6
Duration of treatment		
Less than a year	116	37.9
1-5 years	97	31.7
6-10 years	41	13.4
11 years and above	52	17.0
Side effects		
Yes	75	24.5
No	231	75.5
Co-morbid chronic illness		
Yes	152	49.6
No	154	50.3
Treatment adherence		
Good	82	36.8
Poor	224	73.2

The HAQ total score was found to be 15.7±13.7 (0.0-60.0). The MHC-SF total score was found to be 43.3±14.5 (1.00-70.00). Table 2 shown mean scores of the HAQ and the MHC-SF among of the patients with RA.

Table 2. Mean Scores of Health Assessment Questionnaire (n=306)

HAQ[#] and sub-factors	**Mean±SD[¤]**	**Min-Max scores**	**Median±SD[¤]**
Dress	1.4±1.6	0.0-3.0	0.74±0.8
Arise	1.6±1.6	0.0-3.0	0.91±0.8
Eating	2.1±2.3	0.0-3.0	0.79±0.8
Walking	1.9±1.6	0.0-3.0	1.06±0.8
Hygiene	1.0±1.9	0.0-3.0	0.39±0.75
Reach	2.1±1.9	0.0-3.0	1.06±0.9
Grip	2.7±2.5	0.0-3.0	0.98±0.8
Activities	2.4±2.5	0.0-3.0	0.94±0.8
Total HAQ# score	15.7±13.7	0.0-3.0	0.78±0.68
MHC-SF[##] and sub-scales	**Mean±SD[¤]**	**Min-Max scores**	
Emotional well-being	7.6±4.7	0.0-15.0	
Social well-being	13.0±6.1	0.0-25.0	
Psychological well-being	22.6±6.4	0.0-30.0	
Total MHC-SF[##] score	43.3±14.5	1.00-70.0	

Note: [#]HAQ- Health Assessment Questionnaire; [##]MHC-SF- Mental Health Continuum Short Form; [¤]SD- Standart deviation; Min-Minimum; Max-Maximum

Statistical relationships amongst HAQ score and MHC-SF score were presented in the Table 3. There was significant negative correlation between HAQ mean score and MHC-SF mean score ($p<0.01$). That is, emotional, social, psychological well-being was affected by level of functional situation.

Table 3. Relationship between Health Assessment Questionnaire Scores and Mental Health Continuum Short Form Scores (n=306)

[##]MHC-SF and sub-scales	[#]HAQ	
	r	p
Social well-being	-0.28	0.00**
Emotional well-being	-0.42	0.00**
Psychological well-being	-0.30	0.00**
MHC-SF[##]	-0.39	0.00**

Note: [#]HAQ - Health Assessment Questionnaire; [##]MHC-SF- Mental Health Continuum Short Form *p<0.05; **p<0.01

Relationships among total sub-scales of the MHC-SF and total HAQ score were defined to be respectively. There was a negative significant correlation between psychological well-being ($p<0.01$), emotional well-being ($p<0.01$), social well-being ($p<0.01$), and HAQ mean score. According to this finding, psychological, emotional and social well-being were affected by level of functional situation, and indicating that lower functional well-being was associated with lower level of emotional and psycho-social well-being.

DISCUSSION

Rheumatoid arthritis is an autoimmune disease with medical and psychosocial emotional dimensions, characterized by its close relation to chronic and systemic inflammation. However, despite rheumatoid arthritis having psychosocial emotional dimensions, there were a few studies from here assessing the effect of psychosocial emotional on functional status among patients with rheumatoid arthritis (28,29). Accordingly, the purpose of the current study was to

assess functional, emotional, social and psychological situations among patients with rheumatoid arthritis.

We used to health assessment questionnaire in order to assess the functional status of patients with rheumatoid arthritis in the present study it was found to be moderately affected. In the current study we observed lower HAQ scores and their functional status was better than those reported by other authors in descriptive studies (25,28-30), which could be explained by younger sample and larger sample size leading to the variation difference. Contrary to the findings of several studies (31,32) we found that lower HAQ scores and their functional status was better as well as. This finding could be explained that the majority of the study population (32.7%) had been one and over years diagnosis of rheumatoid arthritis. It is known that functional disability of the disease has been shown to be follow-up two years after being diagnosed (33). There is, however, evidence from the several studies that many patients experience significant disability in very early stages of disease, even before diagnosis, and that the pattern of disease impact is not simply one of increasing severity with prolonged duration of disease, but follows a more complex pattern of variability in impact, the determinants of which may differ and have different stages of the disease (34-36). The functional disability is established every stage of RA and it progressively deteriorates with an ongoing disease duration. In addition, functional disability could adversely affect individuals differently (37). There has been less research conducted investigating emotional, social and psychological situations were affected by functional situations in patients with RA (12,19-21). The results of our studies demonstrated that the HAQ is highly negative correlated with the MHC-SF. That is, "psychological, emotional, social well-being were affected by functional impairments, and indicating that lower level of psychological, emotional, and social well-being were associated with higher level of functional impairments.

Although the importance of stress, anxiety and depression has been extensively studied in rheumatoid arthritis; emotional, social, psychosocial well-being has been limited (38-40). RA has an important effect on patients' including, psychological, social and emotional functions that frequently occur very early in the illness with the onset of symptoms. The ability to do homework, shopping, and leisure time activities, hobby, social activities were negatively influenced by the disease (41,42). In the current study, we used to the MHC-SF so as to assess the emotional, social and psychological situations of patients with rheumatoid arthritis. It was

found to be emotional situation was the most affected. This finding was similar to a study (43). In the said study reported that emotional well-being was negatively related to functional disability within 1 yr. (43). Several studies stated that anxiety and the level of anxiety can assess general distress and can significant impairment affective states, such as emotional health (44,45). RA patients experience a higher prevalence of emotional challenges compared to patients with healthy individuals and other chronic illnesses. The studies reported that emotional well-being of RA patients were negatively effected to work loss, unemployment, comfort telling co-workers about arthritis, low social support and low self-efficacy of patients (21,22,42,46-48). In the literature, perceived emotional reactions of RA patients have described as feelings of anxiety, depression, agitation, anger, tearfulness, social withdrawal (28). On the other hand, these emotional reactions are defined as emotion focused coping includes self-control, distancing, escape-avoidance, positive reappraisal and accepting responsibility (49,50).

The studies demonstrated that in the development of depressive symptoms was affected the role of the loss of functional activities, especially the loss of basic life activities (e.g., personal hygiene, feeding, gripping) was more significantly associated with emotional well-being among patients with RA (51-53). In the current study, it was found that emotional well-being was more closely associated with the amount of functional disability. That is, level of emotional well-being was affected by level of functional disability, indicating that higher level of functional disability was associated with lower level of emotional well-being. This finding could be explained that the majority of female, married, and lived with whose spouse and child in our study population. It is well-known fact that social roles are a significantly different between women and men all over the world. Owing to contemporary approaches of relations and gender roles have persisted in tandem with changes in the status of women both within and outside of the family (54). For this reason, functional disability and limitations of female patients with RA may also negatively affect their role in family and social life. Another study (55) stated that as the functional limitation and dependence of female patients with RA (n=41) increased, they experienced more emotional stress and themselves less worthy and inadequate, and self-esteem decreased. It is known that physical factors, besides disease related factors, influence the perception of emotional well-being and general well-being, indicating the importance of patient based evaluations to determine the quality of life. This is also confirmed by some researchers (5) who found in their study trail that physical well-being and emotional well-being were more

negatively affected by functional disability than other dimentions of quality of life. Moreover, it was reported that although functional limitation and dependence was not yet developed, RA patients could experience disability fears and emotional problems (45,50).

Social well-being is defined as the positive state of our relationships, social peace and social stability. Therefore, social well-being also comes from positive and regular social contact with family, neighbours, friends, school and work (27). As social beings, with responsibilities, and specific roles, humans engage in a range of life activities. Not only RA interfere with work, but it restricts participation in other roles, including those integral to family life, such as being a parent, maintaining intimate relationships or managing a household (22,23). We found that there was significantly associated with the amount of functional disability. That is, social well-being was adversely affected by functional disability. This finding could be explained that RA may influence patients' ability to engage in obligatory, discretionary activities, and meaningful including the domains of family life, work, social relationships and leisure. Along with symptoms from RA, threatens the ability to participate in social activities and may compromise social well-being. Several studies shown that physical limitations negatively affected social well-being of patients by reducing social activities such as participation in recreational activities, maintaining hobbies, maintaining social interactions, and these lead to depressive symptoms that adversely affect psychological health (51,52,56). The study emphasized (48) those RA patients who support from colleagues at work is more important in predicting depressive symptoms than supervisor support, as is generally found in the literature of psychiatric disorders in the general population. Another study on family and spouse support found that social and psychological well-being was positively affected by social support among patients with RA (47). The studies demonstrated that social support may increase the quality of life due to decrease illness symptoms such as pain and fatigue (47,53).

The studies demonstrated that (51,52) the role of the loss of valued activities in the development of depressive symptoms among patients with RA was a much stronger predictor of the onset of new depressive symptoms than a decline in basic functioning. We found that negatively affected another sub-dimension of MHC-SF was psychological well-being. In addition, there was significantly associated with the amount of functional disability. That is, psychological well-being was adversely affected by functional disability. This finding could be explained that the majority of patients are married, living with their family, no job loss due to illness, and no other

chronic illness. Since RA has a severe effect on patients' physical well-being, it is not pointless to expect that this can also cause alterations in their psychological well-being. The results of several studies (33,57-59) supported the idea that RA could negative effect on the psychological health of patients with RA. A study emphasized that RA patients had more disability was likely to experience lower levels of psychological health status (60).

Psychological disorders are higher than is found in normal populations, but comparable to what has been found in other chronically ill people (55,59). This increased psychological disorder found in RA patients has been found to be mediated by other variables, including severity of disease, pain level, social support, and coping skill (19,20). A study (15) shown that psychological well-being was significant associated with emotional support and social support among patients with RA. Several studies stated that as patients' social support level, emotional coping skills and self-efficacy perception was higher, they experienced lower the psychological distress symptoms (e.g., anxiety and depression) and psychologically were less affected in chronic diseases which cause functional limitations like rheumatoid arthritis (19,21,61-63). Another study (64) stated that social difficulties were significant predictors of psychological well-being. There is a considerable body of literature shown that as with other chronic illness, psychologically and physiologically of rheumatoid arthritis based effects cause problems in different various of life by, for example, restricting or reducing a patient's ability to perform different tasks or work. This can subsequently lead to the loss of functional activities and can cause problems in performing social roles, all of which has a major effect on a patient's emotional and psychosocial well-being (63-65).

LIMITATIONS

On the other hand, there are limitations in the current study. A limitation of the study is that the university hospital in Manisa, Turkey (West Anatolian) was included in study. The results, hence, cannot be generalized to all patients with RA. However, we believe that the results of this study have highlighted the lower emotional and psychosocial well-being was significantly associated with role of lower functional well-being.

CONCLUSION

In conclusion, the results of this study indicated that the patients who rheumatoid arthritis experience moderate level of functional, emotional and psychosocial well-being. In addition, emotional and psycho-social well-being was adversely affected by functional well-being.

In line with these findings the following are recommended;

- To determine the functional deficiencies that negatively affect the emotional well-being of patients with rheumatoid arthritis and to give priority to their treatment and care,
- To plan appropriate interventions to the problems that negatively affect the psychosocial well-being of patients with rheumatoid arthritis by expert health professionals.

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