

## Original Article

## Evaluation of the Loneliness, Social Support and Quality of Life in Patients with Rheumatoid Arthritis

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### Abstract

**Purpose:** This research was conducted with the aim of determining the loneliness, social support and quality of life in patients with rheumatoid arthritis.

**Methods:** This is a descriptive study. This study was conducted on 182 rheumatoid arthritis patients who came to the rheumatology outpatient clinic of a hospital. A questionnaire, loneliness scale, measures of perceived social support from friends and family and a rheumatoid arthritis quality of life questionnaire were used to collect the data of the study. Mann-Whitney U, Student's t-test and Kruskal-Wallis were used to evaluate the data.

**Results:** Patients obtained a mean score of 38.62 (SD=12.26) from the loneliness scale, 15.78 (SD=4.20) from the perceived social support scale and 15.19 (SD=7.77) from the quality of life questionnaire. It was found that education status, receiving care and joint deformity affected daily activities and pain affected loneliness significantly; family type and joint deformity affected daily activities and psychological conditions and pain affected social support significantly; education status, receiving care, movement restriction and joint deformity affected daily activities; and pain, stiffness, fatigue and sleep disorder affected life quality significantly ( $p<0.05$ ).

**Conclusion:** RA patients had experienced loneliness, social support is above average and they had a moderate quality of life. It was found that people whose daily activities were affected and people who had joint deformity and pain were lonelier, and their social support and life quality were lower.

**Keywords:** Rheumatoid arthritis, loneliness, social support, quality of life

### Introduction

Rheumatoid arthritis (RA) is an autoimmune and chronic disease that leads to disabilities and affects joints (Picerno et al., 2015). RA negatively affects the psychological conditions and the physiological and social functions of patients due to stiffness and pain in joints, fatigue and functional disorders (Ryan, 2014). Although RA may be observed in every age, it is more commonly seen in the ages of 35–60 years, and among women 2–4 times more than men. RA prevalence has been reported to be 0.2%–1% in the world (Crowson et al., 2011). In studies conducted in Turkey, RA prevalence has been reported to be 0.35% in Antalya (Kacar et al.,

2005) and 0.35% in the Black Sea Region (Capkin et al., 2010).

In the treatment of RA, pharmacological and non-pharmacological treatment approaches are generally used by a multidisciplinary healthcare team (Kalyoncu et al., 2013). The purpose of the treatment is to reduce pain and inflammation, avoid joint injury and extra-articular stiffness, minimise the treatment's side effects, carry out the patient's education, ensure remission and enhance quality of life (Durham et al., 2015; Smolen et al., 2014).

RA is a chronic disease that negatively affects patients' daily lives (McCarron, 2015). The impairment in the life quality of patients with RA has been reported to be more common compared

to the general population (Gerhold et al., 2015). Various studies have reported low life quality, inability to perform daily life activities (Pehlivan et al., 2010; Poole et al., 2007), sleep problems (Yucel et al., 2014), pain (Corbacho & Daputo, 2010; Lisitsyna et al., 2013) and pain and fatigue (Baloglu et al., 2015; Pollard et al., 2005) among RA patients.

Having good social support is reported to make contributions to physical and mental health in rheumatic diseases (Kool et al., 2013). Due to reasons such as functional losses, joint pains, deformations, body image disturbance, emotional state disturbance and addictions observed in RA, patients need professional help. Social support is required to receive support from family members of RA patients, discover the ways of support need by the patients and to cope with the problems caused by the disease (Fallatah & Edge, 2015). The higher the perceived social support is, the lower the negative psychological state and stressors are (Smyth et al., 2014). In a study conducted on Greek RA patients, social support was found to increase quality of life independently of disease activities, demographic factors and social integration (Pitsilka et al., 2015).

It is thought that health professionals are the ones who determine the levels of loneliness, social support and life quality of patients and therefore it is crucial that they provide professional support to them through the planning and implementation of the necessary RA patient care.

This study was conducted in order to determine the loneliness, social support and quality of life of patients with RA.

## **Patient and Methods**

### **Study Design**

This is a descriptive study. The study was conducted on patients who applied to the Rheumatology Outpatient Clinic of a hospital in Erzurum between June 2014 and January 2015 and were diagnosed with RA. The population of the study consisted of 202 RA patients who applied to the Rheumatology Outpatient Clinic between June 2014 and January 2015. Of these 202 patients, 20 were excluded from the study due to various reasons (not agreeing to participate in the study and not speaking fluently). The sample group of the study consisted of 182 RA patients. In the power

analysis conducted to determine the adequacy of the sample group, it was found that the effect size was 0.55 and the power was 0.95 at significance level of 0.05 and a confidence interval of 95%. This value signifies that the sample group is sufficient (Polit and Sherman, 1990).

### **Data Collection**

The following tools were used in this study.

The questionnaire was prepared by the researcher in line with the literature (Ryan, 2014; Sparks et al., 2014) and to determine the socio-demographic and clinical characteristics of the patients. The UCLA Loneliness Scale was developed in order to evaluate the loneliness conditions of individuals; in Turkey, its reliability and validity study was conducted by Demir. The scale consists of 20 questions. While the highest score for each item is 80, the lowest score is 20. The loneliness score varies between 20 and 80; as the score is higher, loneliness increases (Demir, 1989). The measures of perceived social support from friends and from family were developed, and its Turkish reliability and validity study was conducted by Eskin. There are 20 items in the scale. Received scores vary between 0 and 20 and as the score is higher, the social support increases (Eskin, 1993). The RAQoL Questionnaire was developed, to identify the quality of life of RA patients. Its Turkish reliability and validity study was conducted by Kutlay et al. The scale was developed for use among RA patients and to be filled in by themselves. Received scores vary between 0 and 30 and higher scores indicate a worse quality of life (Kutlay et al., 2003).

### **Study's Implementation**

The researcher met the rheumatoid arthritis patients at the outpatient clinic who had applied to the rheumatology outpatient clinic. The researcher informed patients on the scope and implementation of the study. Written and verbal consents of patients who agreed to participate in the study were received by the researcher. Face-to-face interviews were held with patients, who agreed to participate in the study, to collect the data of the study.

### **Statistical analysis**

Percentage, mean and standard deviation, power analysis, Mann-Whitney U, Student's t-test,

Kruskal-Wallis and variance analysis test were used in order to assess the data.

### **Ethical approval**

Consent was obtained from each patient, and permission was granted by the Ataturk University Ethics Board, Erzurum, Turkey, before commencing the study.

### **Results**

#### **Socio-demographic and disease characteristics of the patients**

It was determined that the average age of patients was 43.53 (SD=13.19) and the average disease duration was 2.97 (SD=1.31) years; 73.6% were female, 84.6% were married, 64.3% received a primary school education and 67.6% had incomes equal to their expenses. Of the patients, 95.6% had health insurance, 74.2% lived in a nuclear family and 79.7% had children. Sixty-four point three percent received care from their family members. Seventy point nine percent had movement restrictions, 40.1% had joint deformities and the daily life activities of 79.1% were affected. Seventy-eight point six percent had pain, 75.3% stiffness, 86.8% fatigue, and 61.5% sleep disorders and the psychological conditions of 70.9% were affected by the disease (Table 1).

#### **Score means of loneliness, social support and quality of life**

Patients obtained a mean score of 38.62 (SD=12.26) from the loneliness scale, 15.78 (SD=4.20) from the perceived social support scale and 15.19 (SD=7.77) from the quality of life questionnaire. When scales of the Cronbach  $\alpha$  coefficients were examined, these were found to be 0.89 in the loneliness scale, 0.89 in the perceived social support scale and 0.92 in the quality of life questionnaire (Table 2).

#### **Factors affecting loneliness, social support and quality of life**

The loneliness mean score of those who did not receive care from family members, had pain, had joint deformities and whose daily life activities were affected was found to be higher. The mean scores of social support of those who lived in nuclear families, did not have joint deformities, were not affected in terms of daily activities, did not have pain, did not have stiffness and whose psychological state was not affected were found to be higher. Those who did not receive care

from family members, had movement restrictions, had joint deformities, were affected in terms of daily activities, had pain, stiffness, fatigue and sleep disorders had higher mean scores of quality of life (Table 3).

### **Discussion**

Evaluation of loneliness, perceived social support and quality of life in patients with rheumatoid arthritis were discussed in the light of the literature. We can say that RA patients had experienced loneliness, social support is above average and they had a moderate quality of life.

Kool et al. (2013) reported that young rheumatic disease patients with low educational levels had higher loneliness levels. Similarly in our study, it was found that the educational level of the patients affected their loneliness; those who received primary school education had higher levels of loneliness whereas the age did not affect loneliness.

In our study, those who lived in extended families have low levels of perceived social support. A study is reported in which RA patients were in need of social support from family members (Fallatah & Edge, 2015). It is thought that especially family members of RA patients who lived in extended families should be informed about the need for reinforcing social support. In our study, the perceived social support of patients whose daily activities and psychological conditions were not affected was found to be considerably higher. In a study conducted in Denmark and Belgium, patients stated that receiving social support made a contribution to the physical and mental health of patients with rheumatic diseases (Kool et al., 2013).

The life quality of patients who had pain and fatigue was found to be significantly low in our study. Similarly, various studies conducted on RA patients have determined that those who had pain (Corbacho & Dapuetto, 2010; Lisitsyna et al., 2013), had fatigue (Gunaydin, et al., 2009) and had fatigue and pain (Baloglu et al., 2015; Pollard et al., 2005) have lower life qualities. Affected psychological states of patients did not affect quality of life in our study. However, Pollard et al. (2005) specified that psychological factors negatively affected the life qualities of RA patients. It was found in our study that life qualities of patients whose daily activities were affected were considerably low.

**Table 1. Socio-demographic and disease characteristics of the patients (N=182)**

Characteristics		$\bar{x}$ (SD)
Age, year	Min:18, Max:70	43.53 (13.19)
Disease duration, years	Min:1, Max:45	2.97 (1.31)
<b>n (%)</b>		
Gender	Female	134 (73.6)
	Male	48 (26.4)
Marital status	Married	154 (84.6)
	Single	28 (15.4)
Educational status	Primary school	117 (64.3)
	High school	37 (20.3)
	University	28 (15.4)
Income status	Low	52 (28.6)
	Equal	123 (67.6)
Health insurance	Much	7 (3.8)
	Yes	174 (95.6)
Family type	No	8 (4.4)
	Nuclear	135 (74.2)
Child	Extended	47 (25.8)
	Yes	145 (79.7)
Receiving care from family	No	37 (20.3)
	Yes	117 (64.3)
Movement restriction	No	65 (35.7)
	Yes	129 (70.9)
Joint deformity	No	53 (29.1)
	Yes	73 (40.1)
Daily life activities	No	109 (59.9)
	Affected	144 (79.1)
Pain	Not Affected	38 (20.9)
	Yes	143 (78.6)
Stiffness	No	39 (21.4)
	Yes	137 (75.3)
Psychological condition	No	45 (24.7)
	Affected	129 (70.9)
Fatigue	Not Affected	53 (29.1)
	Yes	158 (86.8)
Sleep disorder	No	24 (13.2)
	Yes	112 (61.5)
	No	70 (38.5)

**Table 2. Score means of loneliness, social support and quality of life (N=182)**

	n	Min	Max	$\bar{x}$ (SD)	Cronbach $\alpha$
Loneliness	182	21	76	38.62 (12.26)	0.89
Social Support	182	0	20	15.78 (4.20)	0.89
Quality of Life	182	0	30	15.19 (7.77)	0.92

**Table 3. Comparison of the effective factors upon loneliness, social support and quality of life (N=182)**

Variables		Loneliness			Social support		Quality of life	
		n	$\bar{x} \pm SD$	P	$\bar{x} \pm SD$	P	$\bar{x} \pm SD$	P
Gender	Female	134	39.26 $\pm$ 12.80	0.310 <sup>a</sup>	16.07 $\pm$ 4.06	0.082 <sup>a</sup>	15.37 $\pm$ 7.55	0.601 <sup>c</sup>
	Male	48	36.85 $\pm$ 10.56		14.98 $\pm$ 4.51		14.69 $\pm$ 8.39	
Marital status	Married	154	39.11 $\pm$ 12.24	0.118 <sup>a</sup>	15.88 $\pm$ 4.22	0.244 <sup>a</sup>	15.52 $\pm$ 7.74	0.183 <sup>c</sup>
	Single	28	35.88 $\pm$ 12.25		15.21 $\pm$ 4.12		13.39 $\pm$ 7.80	
Educational status	Primary	117	40.54 $\pm$ 12.72	<b>0.010</b> <sup>b</sup>	15.90 $\pm$ 4.06	0.817 <sup>b</sup>	16.74 $\pm$ 7.89	<b>0.001</b> <sup>d</sup>
	High	37	35.57 $\pm$ 11.46		15.51 $\pm$ 4.56		13.41 $\pm$ 7.28	
	University	28	34.63 $\pm$ 9.62		15.64 $\pm$ 4.42		11.07 $\pm$ 5.81	
Family type	Nuclear	135	37.79 $\pm$ 11.60	0.217 <sup>a</sup>	16.16 $\pm$ 4.20	<b>0.012</b> <sup>a</sup>	14.63 $\pm$ 7.60	0.098 <sup>c</sup>
	Extended	47	41.00 $\pm$ 13.85		14.68 $\pm$ 4.05		16.81 $\pm$ 8.08	
Care from family	Yes	117	37.42 $\pm$ 12.20	<b>0.020</b> <sup>a</sup>	15.80 $\pm$ 4.10	0.905 <sup>a</sup>	14.20 $\pm$ 7.60	<b>0.020</b> <sup>c</sup>
	No	65	40.76 $\pm$ 12.16		15.74 $\pm$ 4.40		16.98 $\pm$ 7.80	
Movement restriction	Yes	129	38.82 $\pm$ 12.61	0.878 <sup>a</sup>	15.45 $\pm$ 4.34	0.142 <sup>a</sup>	16.40 $\pm$ 7.63	<b>0.001</b> <sup>c</sup>
	No	53	38.11 $\pm$ 11.48		16.58 $\pm$ 3.75		12.25 $\pm$ 7.35	
Joint deformity	Yes	73	42.64 $\pm$ 13.50	<b>0.000</b> <sup>a</sup>	14.73 $\pm$ 4.71	<b>0.009</b> <sup>a</sup>	17.38 $\pm$ 8.06	<b>0.002</b> <sup>c</sup>
	No	109	35.92 $\pm$ 10.60		16.49 $\pm$ 3.67		13.72 $\pm$ 7.23	
Daily life activities	Affected	144	39.33 $\pm$ 12.24	0.049 <sup>a</sup>	15.51 $\pm$ 4.21	<b>0.030</b> <sup>a</sup>	16.58 $\pm$ 7.57	<b>0.000</b> <sup>c</sup>
	No	38	35.89 $\pm$ 12.11		16.82 $\pm$ 4.05		9.92 $\pm$ 6.12	
Pain	Yes	143	40.08 $\pm$ 12.82	<b>0.001</b> <sup>a</sup>	15.31 $\pm$ 4.44	<b>0.008</b> <sup>a</sup>	16.52 $\pm$ 7.44	<b>0.000</b> <sup>c</sup>
	No	39	33.26 $\pm$ 8.05		17.49 $\pm$ 2.51		10.33 $\pm$ 7.04	
Stiffness	Yes	137	39.24 $\pm$ 12.27	0.135 <sup>a</sup>	15.31 $\pm$ 4.25	<b>0.001</b> <sup>a</sup>	16.47 $\pm$ 7.34	<b>0.000</b> <sup>c</sup>
	No	45	36.73 $\pm$ 12.16		17.22 $\pm$ 3.71		11.31 $\pm$ 7.80	
Psychological condition	Affected	129	39.03 $\pm$ 11.88	0.288 <sup>a</sup>	15.30 $\pm$ 4.33	<b>0.006</b> <sup>a</sup>	15.81 $\pm$ 7.88	0.096 <sup>c</sup>
	No	53	37.62 $\pm$ 13.20		16.94 $\pm$ 3.65		13.70 $\pm$ 7.33	
Fatigue	Yes	158	38.75 $\pm$ 12.39	0.688 <sup>a</sup>	15.48 $\pm$ 4.28	<b>0.003</b> <sup>a</sup>	16.22 $\pm$ 7.50	<b>0.000</b> <sup>c</sup>
	No	24	37.75 $\pm$ 11.62		17.75 $\pm$ 3.04		8.42 $\pm$ 5.94	
Sleep disorder	Yes	112	40.00 $\pm$ 13.49	0.229 <sup>a</sup>	15.47 $\pm$ 4.44	<b>0.033</b> <sup>a</sup>	17.26 $\pm$ 7.84	<b>0.000</b> <sup>c</sup>
	No	70	36.42 $\pm$ 9.69		16.27 $\pm$ 3.76		11.89 $\pm$ 6.43	

<sup>a</sup>Mann-Whitney U test, <sup>b</sup>Kruskal-Wallis test, <sup>c</sup>Independent sample t test, <sup>d</sup>Variance analysis test

Similarly, Pehlivan et al. (2010) also indicated that rheumatic diseases such as RA negatively affected daily activities and reduced quality of life. In a study, it was found that the ability to perform daily life activities affected the quality of life (Poole et al., 2007). The life quality of patients with sleep disorders was found to be significantly low in our study. Gunaydin et al. (2009) also specified that RA patients who experienced sleep disorders had low quality of life. Yucel et al. (2014) determined that a great majority of RA patients had poor sleep quality and low life quality. These conducted studies show parallelism with our study. Quality of life of patients who had movement restriction was significantly low in our study. In a similar manner with our study, it was reported in the study that RA patients' activity intolerance, physical movement impairment and gait disturbance negatively affected the quality of life (Kaya & Babadag, 2004).

This research is limited to 182 patients with RA coming to the outpatient clinic rheumatology.

### Conclusion

RA patients had experienced loneliness, social support is above average and they had a moderate quality of life.

Patients who had received primary school education, did not receive care from family, had joint deformities, whose daily activities were affected and who had pain were found to considerably suffer from loneliness. Those who lived in extended families, had joint deformities, whose daily activities were affected, who had pain and stiffness and whose psychological condition was affected had considerably low levels of perceived social support. Those who were primary school graduates, did not receive care from family, whose daily activities were affected, who had movement restrictions, joint deformities, pain, stiffness, fatigue and sleep disorders had significantly low life qualities.

It is important to be aware that RA patients are in need of receiving social support from family members to cope with the disease and the disabilities caused by it, and nurses should provide families with support on this matter, inform and guide them.

### Acknowledgments

We would like to thank all the patients that participated in our study, the doctors, nurses and

technicians at the rheumatology outpatient clinic. This study was supported by the Scientific Research Projects Unit at Ataturk University (BAB-2013/278).

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