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CHARACTERISTICS OF CERTAIN ASPECTS OF SOCIAL PARTICIPATION OF PERSONS WITH RHEUMATOID ARTHRITIS

Ljiljana Šimpraga¹ & Mirjana Zlatković-Švenda²

¹Academy for Applied Studies Belgrade, College of Health Sciences, Belgrade, Serbia

²Institute of Rheumatology, University of Belgrade School of Medicine, Belgrade, Serbia

SUMMARY

Patients with rheumatoid arthritis have noticed the change in their lives, in domains of physical health, in their independence degree, in their participation in everyday life and in their ability to work. These patients daily encounter the characteristic symptoms of damage caused by arthritis, as well as the impact of the disease on socioeconomic status, employment and life habits. The onset of symptoms in rheumatoid arthritis is characteristic for a life period when a person is expected to be very engaged in his/her workplace, family environment, leisure activities, as well as in developing social contacts and social participation.

The aim of this research is to evaluate characteristics of certain aspects of social participation of persons with rheumatoid arthritis, by determining the importance of participation in diverse roles and the effects of restrictions in role participation, comparing the group of rheumatoid arthritis patients with the control group from general population. The sample consisted of 28 subjects with rheumatoid arthritis and 37 subjects from the control group. The study groups did not differ in gender, age, place of residence, educational, work, family and marital status and in the level of physical activity. In order to determine the importance of participation in diverse roles and the effects of restrictions in role participation the Importance of Participation in Diverse Roles and Restrictions in Role Participation Subscales within the Modified Social Role Participation Questionnaire, (Modif.SRPQ, Gignac et al., 2011) were used. The Importance of Participation in Diverse Roles Subscale in our research had a satisfactory (Cronbach's alpha coefficient was 0.71), and the Restrictions in Role Participation Subscale had good internal consistency (Cronbach's alpha coefficient was 0.86).

The results obtained in this study show that there are no statistically significant differences in the perception of the importance of participation and the participation in diverse roles between persons with rheumatoid arthritis and the control group persons, except in the domain of offspring relationships, where the significance of these relationships is lower in persons with rheumatoid arthritis than in persons from the general population. However, the importance of restrictions in diverse role participation is statistically significantly more pronounced in the group of rheumatoid arthritis subjects in the domains of hobbies, in community activities, social events, travel and vacations, daily contacts, but also in overall community activities. Thus, physical restrictions significantly limit the social participation of persons with rheumatoid arthritis. Regarding the association between demographic variables and the participation of persons with rheumatoid arthritis in diverse roles, the presence of restrictions associated with increased unemployment, i.e. decreased work engagement, was shown to be more frequent, while other variables were not related to the achievement of the subjects in the Importance of Participation in Diverse Roles and Restrictions in Role Participation Subscales.

The findings of this research may be of use to practitioners working directly with people with RA in the rehabilitation process. On the other hand, these findings could serve as a starting point for future studies focusing on the issue of social participation for persons with RA.

Key words: social roles, restrictions, social contacts, social environment, rheumatic diseases, participation, inflammatory rheumatism

INTRODUCTION

Rheumatoid Arthritis

Rheumatoid arthritis (hereinafter referred to as RA) is the most common form of inflammatory rheumatism, a chronic, autoimmune, systemic disease of unknown etiology. In addition to rheumatoid arthritis, inflammatory rheumatism can occur in several specific forms, such as psoriatic arthritis, systemic lupus erythematosus, ankylosing spondylitis, reactive arthritis as well as juvenile idiopathic arthritis (O'Brien & Backman, 2010: 112).

At the heart of this autoimmune disease is the abnormal antibody and T-cell responses to an auto-antigen causing a widespread inflammatory process in the synovial cells lining joint capsules (Haines, 2004). The main characteristic of the disease is synovitis, which symmetrically engages the peripheral joints, most commonly the small joints of the hands and feet, the wrists, elbows, shoulders, knees as well as the cervical spine. Synovitis, synovial inflammation and increased production of synovial fluid lead to swelling of the joints, redness and pain, and the prolonged duration of this condition further damages the surrounding joint structures, ligaments and tendons of the surrounding muscles. Generally, the clinical picture of RA describes pain, decreased range of mobility in the joints, muscle function and hand strength, stiffness of varying intensity, fatigue, and decreased general functionality of the person. In the end stage of the disease, the inflammatory process destroys the cartilage, there is erosion of the bones entering the joint and the appearance of characteristic disorders leading to a decrease or complete loss of function of the affected segments and extremities. The described changes occur over several months or years, alternating through the stages of exacerbation and remission (O'Brien & Backman, 2010: 212-214).

In addition to arthrogenic and bone structures, other systems and tissues of the body such as the skin, small blood vessels (vasculitis), eyes (scleritis, uveitis), fibrous changes in the subcutaneous tissue (around the elbow) can be affected by the inflammatory process. The inflammatory process can affect the heart (myocarditis, pericarditis), lungs, kidneys, and possibly peripheral neuropathies (Haines, 2004). Multisystemic impairments, longevity, and chronicity of symptoms as significant features of RA place this disease among the leading causes of disability (Song et al., 2006). Severe or untreated RA can shorten life expectancy by six to 10 years (Olejarova, 2008), which is equivalent to the effects of diabetes, stroke, or coronary heart disease.

The incidence of RA is estimated to be between 20 and 50 patients per 100,000 inhabitants in European countries (EUMUSC, 2014). Some studies indicate that more than 2.3 million people have been diagnosed with RA in Europe (Lundkvist et al., 2008). In addition to older patients, according to slightly older data of the *National Health Interview Survey*, USA, 1998) the estimated annual prevalence is 1.3% for people under 25 years of age and close to 400,000 children, adolescents, and young people suffering from arthritis in the United States (Evans & Cousins et al., 2011; Lawrence et al., 1998). The disease occurs more frequently in women than in the male population in the ratio 2:1 (Kremers & Gabriel, 2004; Symmons et al., 2002) or according to recent data 3:1 (Kaas & Tothova, 2017), but this ratio decreases with age at 1.2: 1 (Silman, 2001). The

disease occurs between 35-50 years of age and the incidence increases with aging but can also occur in older people (Zlatković Švenda, 2014).

In our environment, according to the methodology and design of determining the prevalence of the European League Against Rheumatism (EULAR) and relative to the French population as a reference, it has been established that by gender and age, the standardized prevalence of RA in Serbia is 0.34 % for the total population, that is, 0.17% for men and 0.49% for women (3:1) and that it is the highest in the 65-74 age group (0.88% in the male, 1.46% in the female population). In relation to the standard population of central Serbia, by age and gender, the standardized prevalence of RA for the entire population of central Serbia over 18 years of age, is 0.35%, namely 0.16% for men and 0.51% for women. According to the geographical areas of central Serbia, the standardized prevalence of RA in Belgrade (relative to the standard population of central Serbia) is 0.30% and is lower than the standardized prevalence of RA in the southern cities of central Serbia, Čačak, Užice and Kruševac, being 0.42% (Zlatković Švenda et al., 2014).

In RA therapy, standard pharmacological therapies are used as well as rehabilitation procedures that contribute to better control of the disease but not its cure, and these patients daily face chronic pain as a major symptom of the disease. Early intervention procedures are known to significantly reduce the impact of chronic inflammation and facilitate clinical remission, although remission rates are still suboptimal and radiographic progression occurs in about half of all RA patients (Giacomelli et al., 2015).

Current strategies in the treatment of RA are based on the early diagnosis and implementation of modified antirheumatic drugs that reduce disease activity and thus directly affect the reduction of impairment and the onset of disability (Ahlstrand et al., 2011). The modern approach in the treatment of RA with biological agents and therapy has proven to be very successful in stopping the progression of the disease, however long-term use of drugs is associated with adverse side effects and consequences, including gastrointestinal problems, kidney damage, liver or cancer development (Wolfe & Michaud, 2007). The application of modern therapy with biological agents changes the up to now expected clinical picture of the disease, slows and potentially prevents the progression of the disease and thus improves the health quality of life of these patients. The question is the impact of these drugs on the daily demands and activities of the individual in relation to family, work and society.

Social Participation

The concept of participation plays an important role in the International Classification of Functioning, Disability and Health, (ICF; World Health Organization, 2001). By definition, ICF participation represents *involvement in life situations*. This definition indicates how an individual participates in society, for example, in the process of education, socializing and interacting with other people, leisure, hobbies and sports, more specifically what is the significance of these activities for the individual as well as satisfaction with time spent in an activity or participation in the *role*. The role includes, for example, the role of parents and communication within the family, the role of the employee or student, formal relationships and communication in society or of personal

affinities within leisure, participation in the community, and assistance to other people (Gignac et al., 2008; McKenna et al., 2004).

Social participation is defined by the social roles of the individual. Hence not with action or task to be performed as part of the activity but rather a reflection of the capabilities, environmental conditions and personal characteristics of the individual. In this sense, when determining social participation, it is assessed whether a person can be in that role in the way he or she wants, and how important it is for the individual to participate in the role, not whether the activity which this role bears has been carried out or performed (Davis et al., 2009; Gignac et al., 2008). With this in mind, Gignac et al., suggest that when assessing social participation, one should take into account one's personal preferences as well as the importance an individual gives to it, then the manner and time a person wants to spend participating and attending the role (in a family setting, school or work).

In addition to interest in the outcomes of rehabilitation procedures and modern pharmacological therapy in the treatment of RA, prevention of further impairment and maintenance of mobility, it is necessary to take into account the impact of the disease on other aspects, such as participation, through social involvement, work, family, leisure activities. Therefore, it is necessary to clarify the significance of the impact of the disease on the psychosocial factors that, due to the chronicity of the disease, should be included in rehabilitation.

Exploring the ways in which patients with chronic arthritis understand the concept of quality of life, Melm et al., (2017) highlighted that social participation is an experience of belonging to a social context, through a qualitative study involving twenty-two patients with chronic arthritis. The patients who were interviewed experience the quality of life through participation in terms of belonging to the community, home environment, work, and the wider environment. Participation involves staying out of the house, in close surroundings and in the neighborhood interacting with other people. Respondents taking part in different activities with other people of different gender and age are part of the social context and have a sense of belonging. According to the conclusions of Melm et al., (2017) for a person whose quality of life is being assessed, one of the ways to understand it is through participation, the experience of belonging to family, colleagues, friends from whom he/she is accepted and appreciated.

In the context of participation, McCarron (2015) examined the effects of the presence of peer support on the quality of life of patients with rheumatoid arthritis. Impaired physical functioning and lack of support make social participation vulnerable and as is with patients in isolation because of their reduced ability to participate with the environment under the same circumstances in different aspects. According to McCarron's findings, RA patients have a fear of loneliness, exclusion, and inability to participate in society due to the characteristic symptoms of arthritis and restrictions. In the area of daily life, social support is needed to empower participants with increased knowledge and self-efficacy, McCarron concludes.

Characteristic symptoms of RA can also be a significant cause of reduced social participation. In addition to evident physical impairments, the clinical symptoms of RA and their long-term effects significantly affect physical health and independence. Patients with RA recognize pain as a major cause of their decreased activity and

participation (Carr et al., 2003; Minnock, FitzGerald, & Bresnihan, 2003). Despite various rehabilitation procedures, pain is a chronic symptom, of medium and high intensity, which limits the patient's physical activity and participation through presence in important life aspects. Fatigue is also a disabling factor affecting the daily life and work performance of a person with RA. Fatigue is fundamentally associated with the active course of the disease and significantly affects the quality of life segments related to physical fitness, vitality and emotional life (Kaas & Tothova, 2017; Mc Cabe et al., 2013; Turan et al., 2010).

When it comes to social participation, one of the studies (Gignac et al., 2008) assessed the importance of diverse social roles in the lives of people with osteoarthritis, a form of inflammatory arthritis, the satisfaction with time spent in roles and fulfillment of those roles, as well as the share of demographic, health and psychological factors according to role perception. The sample included a total of 87 subjects with osteoarthritis, 60 females and 27 males, aged 42 to 86 (average age 65.6 years). Most subjects (62%) had osteoarthritis of the knee.

In this study, the Social Role Participation Questionnaire (SRPQ; Gignac et al., 2008) was used as the basic instrument for assessing social participation. The Questionnaire was designed for the study conducted and examined 11 social roles and one general one that covered all the previous social roles. The study focused on three dimensions of social participation: the importance of social role, satisfaction with time spent in the role, and satisfaction with fulfilling the social role e.g. participation in the community, intimate relationships, work. Other data collected were related to the demographic structure of the sample and the presence of other diseases, symptoms of osteoarthritis, presence of pain, activity limitations, and the presence of depression and/or anxiety.

The findings indicated that subjects with osteoarthritis rated multiple roles as significant or important, but with a low to moderate association with satisfaction. In addition, SRPQ dimensions related to the importance and satisfaction differed. Satisfaction with time spent in roles and satisfaction with role fulfillment were highly correlated ($r = 0.83$). Lower levels of significance or importance of roles were associated with age, lower levels of education and lower incomes, but also with greater invasiveness of the disease. Less satisfaction with time spent fulfilling the roles was found in younger subjects and was associated with greater reported pain, greater disease invasiveness, while less satisfaction with role fulfillment was associated with greater disease invasiveness and depression (Gignac et al., 2008). The authors find that when roles are rated as more important, the subjects are more likely to perceive their illness as more invasive or with a greater disruptive impact on their lives.

Ankylosing spondylitis also belongs to the group of inflammatory rheumatism, so we took Van Genderen's study into account (Van Genderen et al., 2018). The study was conducted to research the relationship between social participation and life satisfaction in people with ankylosing spondylitis and to compare the results with a control group of healthy subjects. The sample included a total of 246 subjects with spondylitis with a mean age of 51 ± 12 years, of whom 62% were male. According to the data, the disease lasted on average 17 ± 12 years. The control group consisted of 510 healthy subjects with a mean age of 42 ± 15 years, of whom 70% were male. Data were collected online and several scales were applied. For the purpose of assessing social participation, this group

of authors also implemented the Social Role Participation Questionnaire (SRPQ). A version of the Questionnaire was applied that assesses four dimensions of participation (role importance, satisfaction with time spent fulfilling the role, performance satisfaction, restrictions) across 11 social roles, and through one general one that takes into account all the previous social roles. However, for analytical purposes, participation in social roles has been viewed in three domains: interpersonal relationships, leisure and work (employment). Findings showed that more subjects with spondylitis expressed dissatisfaction with life, and that fewer expressed extreme satisfaction compared with the control group of healthy subjects. In both groups, the connectedness of participation in social roles with greater life satisfaction was calculated, with correlations higher among subjects with ankylosing spondylitis. Within the domains of participation, regression analysis showed that interpersonal relationships made the largest contribution regarding the life satisfaction scores in subjects with spondylitis. It is also interesting to note that satisfaction related to role fulfillment and time spent at work were related to life satisfaction independently of other domains of participation in the control group of healthy subjects, but that none of the dimensions that characterize job participation had an independent share in explaining life satisfaction with employed subjects with ankylosing spondylitis. By changing life priorities and re-evaluating life satisfaction in situations of coping with chronic illness, income becomes less important than social roles (Van Genderen et al., 2018).

We conclude that the findings emphasize the importance of supporting people with spondylitis to improve their participation in social roles, especially in areas such as close, interpersonal relationships and leisure activities, which are usually neglected when working with people with ankylosing spondylitis. A basic recommendation would be for healthcare professionals to take social roles into consideration when discussing care and treatment plans with their patients from the population with inflammatory rheumatism.

Aim of the Research

The aim of the research was to point out the characteristics of certain aspects of social participation of persons with rheumatoid arthritis, by determining the importance of participation in diverse roles and the effects of restrictions in role participation, by comparing the group of subjects with rheumatoid arthritis with the group of subjects from the general population.

METHOD

Sample

The study sample consisted of 65 subjects, including 28 subjects with rheumatoid arthritis and 37 subjects from the control group. The study groups did not differ in gender, age, place of residence, educational, work, family and marital status and in the degree of physical activity. The sample of subjects with rheumatoid arthritis consists of persons undergoing rehabilitation at the Institute for Rheumatology in Belgrade, a health

institution that deals with the treatment and rehabilitation of rheumatic diseases. Upon obtaining approval from the institution’s Ethics Committee, by insight into the database and medical documentation of the institution selected, the sample included patients with different duration of the disease and disease activity. The control group consisted of subjects from the general population who did not suffer from musculoskeletal diseases.

When forming a sample of subjects with rheumatoid arthritis, the criteria for exclusion from the sample were patients with cancer, NYHA Class III and Class IV heart failure, complicated and inadequately treated patients with diagnoses of glandular disease, other inflammatory rheumatic diseases.

Table 1 shows the structure of the examined groups with respect to gender.

Table 1. Structure of the examined groups in relation to gender

Group	Male		Female		Total	
	N	%	N	%	N	%
RA	4	14.3	24	85.7	28	100
K	14	37.8	23	62.2	37	100

$$\chi^2 (1. n = 65) = 3.32, p = 0.07, fi = -0.26$$

Table 1 shows that there were 47 female and 18 male subjects in the sample. In the RA group, women were more frequently represented, being 24 of them (85.7%), as well as in the control group, 23 of them (62.2%), compared to the male subjects in the RA 4 group (14.3%) and control group 14 (37.8%).

The Chi-Square of Independence, with Yates’s correction for continuity, did not show a statistically significant difference between the studied groups in relation to: gender ($\chi^2 (1. n = 65) = 3.32, p = 0.07, fi = -0.26$), place of residence ($\chi^2 (1. n = 65) = 0.54, p = 0.46, fi = 0.12$), family status ($\chi^2 (1. n = 65) = 1.63, p = 0.20, fi = -0.19$) and exercising physical activity ($\chi^2 (1. n = 65) = 0.46, p = 0.79, fi = 0.08$).

The independent samples t-test revealed that there was no statistically significant difference in age between subjects with RA (M = 57.43, SD = 11.35) and subjects from the control group (M = 61.05, SD = 10.95); t (65) = -1.30, p = 0.20, education between RA subjects (M = 3.29, SD = 0.71) and subjects from the control group (M = 3.27, SD = 1.07); t (65) = 0.07, p = 0.95, work status between subjects with RA (M = 2.64, SD = 1.50) and subjects from the control group (M = 2.68, SD = 1.51); t (65) = -0.09, p = 0.93, as well as in marital status between subjects with RA (M = 2.04, SD = 1.60) and subjects from the control group (M = 2.54, SD = 1.86); t (65) = -1.15, p = 0.25.

Instruments and Method of Data Collection

Data regarding gender (male, female), age, place of residence (urban, rural area), educational level (incomplete elementary school, elementary school, secondary education, higher education, university degree), work status (employed, unemployed, householder, retired, early retirement), marital status (married, common law marriage) and family status (in the community, independently), as well as physical activities (active, inactive, occasional) of the subjects were collected using a specially constructed questionnaire for the needs of this research.

The Importance of Participation in Diverse Roles and Restrictions in Role Participation Subscales within the Modified Social Role Participation Questionnaire (Modified 2011, SRPQ) (Gignac et al., 2011) were used for determining the importance of participation in diverse social roles and the effects of restrictions in participation in diverse social roles. The authors of the original version of the SRPQ instrument are Gignac et al., (2008), and we used a modified version of the same author (Gignac, Backman, Badley, Davis, & Lacaille, 2011), (personal correspondence). The original version of the Questionnaire consisted of eleven social role domains and one global question, composed on the basis of pilot researches, psychosocial social role research, existing instruments, arthritis studies (Backman, 2006; Carr & Thompson, 1999; Gignac et al., 2000; Hewlett et al., 2001; Tugwell et al., 1987, according to Gignac et al., 2008).

The 2008 version of the SRPQ Questionnaire assessed the following three dimensions of social participation: the importance of social role, satisfaction with time spent in the role, and satisfaction with performance in social roles. More specifically, the following roles are covered: (1) in the community, religious and cultural events; (2) social events; (3) leisure; (4) hobbies; (5) informal contacts and socializing; (6) travel or vacation; (7) business; (8) education and training; (9) close and intimate relationships; (10) relationships with children/grandchildren; (11) family relationships; and (12) a global assessment of participation in social roles, i.e. in all aspects of the subjects' lives. In the literature, we find more research in which the SRPQ instrument, of different versions, (Davis et al., 2011; Gignac et al., 2013; Oude Vosher et al., 2016; Van Genderen et al., 2016; Van Genderen et al., 2017) has been used to evaluate social participation.

The objective of applying the 2011 Modified SRPQ is the assessment of an individual's perception of: 1) the importance of participation in diverse social roles, 2) the restrictions in role participation, and 3) the satisfaction with participation in social roles. The Questionnaire evaluates twelve (already described) domains. The questions are designed to help individuals reflect on their health in general or on specific conditions (e.g. knee pain associated with arthritis). Among other things, the respondents were asked whether they were currently employed, whether they were attending school, whether they were in an intimate relationship, or had children or grandchildren. The Questionnaire can be used when the sample is made up of healthy people or patients with some form of inflammatory rheumatism (osteoarthritis, ankylosing spondylitis). In our research we applied the Modified SRPQ in subjects with rheumatoid arthritis and in the general population as a control group. The assessment included two dimensions of participation in social roles, through two subscales. The significance or importance of participation in diverse roles subscale included questions under a.) and the limitations or restrictions or role participation included questions under b.) through eleven social roles domains and the twelfth which related generally to all aspects of life. The respondents were asked in the last item to take into account all the social roles previously examined. Each role in each dimension was rated on a Likert scale from 1- not at all important/no difficulty, 2- a little/some difficulty, 3-somewhat/a lot of difficulty, 4-very/unable to do, 5-extremely important/not applicable.

In order for the Modified SRPQ to be applied in our study, this instrument was translated from English into Serbian using the "double-blind translation" i.e. the Modified SRPQ (2011) version of the instrument was translated into Serbian and then

the Serbian version of the translation by another person, was again translated into English. The assessment was conducted by the interviewer conducting the interview and completing the data, or the respondent completed the questionnaire him/herself. It took 10 to 15 minutes to complete the Questionnaire.

Cronbach's coefficient of reliability was used to determine the reliability of the instrument. The Importance of Participation in Diverse Roles Subscale in our study had satisfactory internal consistency (Cronbach's alpha coefficient was 0.71), and the Restrictions in Role Participation Subscale had good internal consistency (Cronbach's alpha coefficient was 0.86).

Statistical Data Processing

Data processing was performed using the Statistical Package for the Social Sciences (SPSS statistics 20.0). In the analysis and processing of the obtained data, in addition to descriptive statistics and Cronbach's alpha coefficient to determine the internal consistency of the subscales used, we used the following statistical techniques: the Chi-Square of Independence, independent samples t-test, Mann-Whitney U test and Pearson's correlation coefficient. The results are presented in tables.

RESULTS

Table 2 shows the achievements of the examined groups in the Importance of Participation in Diverse Roles and Restrictions in Role Participation Subscales within the Modified SRPQ, expressed through mean values and standard deviations.

Table 2. Achievements of the Subjects with RA and Subjects from the Control Group in the Importance of Participation in Diverse Roles and Restrictions in Role Participation Subscales within the Modified SRPQ

Modified SRPQ Roles	Importance of Participation in Diverse Roles		Restrictions in Role Participation	
	RA (M ± SD)	K (M ± SD)	RA (M ± SD)	K (M ± SD)
Physical leisure	3.61 ± 0.96	3.54 ± 1.22	2.43 ± 0.96	2.19 ± 0.74
Hobbies	3.46 ± 1.07	3.84 ± 0.99	2.43 ± 0.88	1.68 ± 0.67
Community, cultural events	3.50 ± 1.14	3.00 ± 1.33	2.14 ± 0.76	1.51 ± 0.65
Social events	3.96 ± 1.26	4.19 ± 0.91	2.29 ± 0.81	1.54 ± 0.69
Casual contact	3.71 ± 1.18	4.27 ± 0.43	1.96 ± 0.84	1.08 ± 0.28
Travel, vacation	4.18 ± 0.91	4.08 ± 1.09	2.32 ± 0.95	1.70 ± 0.78
Paid job	3.86 ± 1.46	3.38 ± 1.69	1.57 ± 0.50	1.57 ± 0.50
Education	1.89 ± 1.29	2.05 ± 1.27	1.89 ± 0.31	1.92 ± 0.28
Close relationship	3.82 ± 1.28	3.54 ± 1.52	1.36 ± 0.56	1.51 ± 0.69
Relationship with children	4.46 ± 0.88	4.84 ± 0.44	1.29 ± 0.81	1.08 ± 0.49
Family relationship	4.86 ± 0.65	4.89 ± 0.39	2.11 ± 0.96	1.70 ± 0.66
All aspects of life	4.18 ± 0.77	4.22 ± 0.89	2.39 ± 0.74	1.89 ± 0.62
Total	45.50 ± 7.12	45.84 ± 6.09	24.18 ± 5.89	19.42 ± 4.17

Table 3 shows the results of examining the differences between the RA and the general population in the Importance of Participation in Diverse Roles Subscale. Mann-Whitney's U test was used to test for differences.

Table 3. *Differences between the Examined Groups in the Importance of Participation in Diverse Role Subscale*

Modified SRPQ Roles	Importance of Participation in Diverse Roles		
	U	z	P
Physical leisure	497.00	- 0.29	0.772
Hobbies	409.00	- 1.51	0.130
Community, cultural events	405.00	- 1.53	0.124
Social events	412.50	- 0.36	0.717
Casual contact	380.50	- 1.94	0.052
Travel, vacation	507.50	- 0.15	0.882
Paid job	443.50	- 1.05	0.245
Education	477.00	- 0.60	0.549
Close relationship	481.00	- 0.51	0.609
Relationship with children	399.50	- 2.14	0.033
Family relationship	485.50	- 0.72	0.473
All aspects of life	489.00	- 0.41	0.680
Total	498.50	- 0.26	0.796

The results presented in Table 3 show that there are no statistically significant differences in the perception of the importance of exercising and exercising diverse social roles between persons with rheumatoid arthritis and persons from the general population, except in the domain of relations with children/offspring, where the importance of these relationships is lower in persons with rheumatoid arthritis compared to persons from the general population.

Table 4 shows the results of examining differences between the RA and the general population on the Restrictions in Role Participation Subscale. Mann-Whitney's U test was used to test for differences.

Table 4. *Differences between the Examined Groups in the Restrictions in Role Participation Subscale*

Modified SRPQ Roles	Restrictions in Role Participation		
	U	z	P
Physical leisure	445.00	- 1.09	0.274
Hobbies	273.00	- 3.45	0.001
Community, cultural events	288.00	- 3.28	0.001
Social events	255.50	-3.74	0.000
Casual contact	213.50	-4.89	0.000
Travel, vacation	327.50	-2.67	0.007
Paid job	516.00	-0.03	0.975
Education	504.50	- 0.36	0.721
Close relationship	464.00	- 0.84	0.400
Relationship with children	459.00	-1.69	0.091
Family relationship	395.00	-1.76	0.079
All aspects of life	326.00	-2.76	0.006
Total	264.50	-3.25	0.001

The results presented in Table 4 indicate the presence of statistically significant differences between subjects with RA and those from the general population. Namely, the importance of restrictions in role participation is statistically significantly more pronounced in the group of subjects with rheumatoid arthritis in domains of hobbies, in community activities, social events, travel and vacations, daily contacts, but also in overall community activities. Finally, on the subscale as a whole, there is a statistically significant difference to the detriment of subjects with RA. In other words, restrictions significantly limit the social participation of people with rheumatoid arthritis.

Table 5 shows the results of establishing the links between certain demographic variables and the self-perception of participation in diverse roles of persons with rheumatoid arthritis. Pearson’s correlation coefficient was used to determine the association.

Table 5. Association between demographic variables and achievements of respondents with RA in the Importance of Participation in Diverse Roles and the Restrictions in Role Participation Subscales within the SRPQ

	Importance of Participation in Diverse Roles	Restrictions in Role Participation
Gender	0.088	0.048
Age	- 0.132	0.315
Place of residence	- 0.102	- 0.020
Education	0.292	- 0.251
Employment status	- 0.007	0.554**
Family status	- 0.120	0.064
Marital status	- 0.099	0.064
Physical activity	- 0.346	0.310

Regarding the results of the association between demographic variables and participation of diverse roles of persons with rheumatoid arthritis shown in Table 5, it can be seen that restrictions related to increased unemployment, i.e. decreased work engagement are more frequently present, while other variables are not associated with the respondents’ achievements on the Importance of Participation in Diverse Roles and the Restrictions in Role Participation subscales.

DISCUSSION

The aim of the research was to point out the characteristics of certain aspects of social participation of persons with rheumatoid arthritis, by determining the importance of participation in diverse roles and the effects of restrictions in role participation, comparing the group of subjects with rheumatoid arthritis with the group of subjects from the general population. The results obtained in this study show that there are no statistically significant differences in the perception of the importance of participation in diverse roles between persons with rheumatoid arthritis and persons from the general population, except in the domain of offspring relationships, where the importance of these relationships is lower in persons with rheumatoid arthritis to persons from the general population. The results in the referred subscales are different

from the results obtained by the research conducted by Genderen et al., (2016) where one of the versions of the SRPQ Questionnaire was used as an assessment tool.

In that study, unlike RA patients, people with ankylosing spondylitis, which belongs to the group of inflammatory rheumatism, gave greater importance of participation in diverse roles compared to the control group, which contradicts the hypothesis set by the author. In contrast, in the findings of Gignac and the author (2013), the assessment of the importance of participation in diverse roles of patients with osteoarthritis which included 177 middle-aged and elderly subjects (≥ 40) compared to the control group is without statistically significant differences, which is consistent with our results (Gignac et al., 2013, according to Genderen et al., 2016). It is certainly important to bear in mind here that there are specificities in the clinical picture of RA in relation to other forms of arthritis (O'Brien & Backman, 2010: 112-113), however, the accompanying symptoms, limited mobility and functionality in daily activities as well as the possibility of participation in family and social roles represent an important and common outcome for patients with some form of arthritis (Alliance for the Canadian Arthritis Program, 2005, according to Davis et al., 2009).

According to our results, the existence of restrictions in role participation is statistically significantly more pronounced in the group of rheumatoid arthritis subjects in domains of hobbies, in community activities, social events, travel and vacations, daily contacts, but also in overall community activities. Thus, restrictions significantly limit the social participation of persons with rheumatoid arthritis. And in the studies mentioned above (Genderen et al., 2016; Gignac et al., 2013), we find that the group of arthritis patients has significantly more restrictions in roles related to leisure, work, and travel and vacation activities. We associate this state of affairs with the clinical picture of RA that we already know: pain, decreased range of mobility in the joints, decreased muscle strength and hand strength, stiffness of varying intensity, fatigue and decreased general functionality of the person. Thus, the findings of Benka and Nagyova's study (2016) indicate an association between social participation, characteristic symptoms of RA (pain, fatigue, functional limitations), psychosocial variables, and personal resources. The study found significant limitations in the area of social participation, as well as that patients with greater restrictions in social participation reported more symptoms of pain, fatigue and impaired functionality, higher levels of anxiety and depression, regardless of whether in the earlier stage of the disease or with confirmed chronic arthritis. There may not have been a significant difference in the duration of the disease, since patients with a disease duration of up to four years already met the criteria for the early RA group, and in some way they had already adjusted to their condition.

According to Kaas and Tothova (2017), the most common and persistent symptom of pain occurs in nearly 98.5% of RA patients tested with the pain having varying intensity and frequency. The aforementioned researchers examined the quality of life of persons with RA within six domains (physical and mental health, level of independence, social relations, environment and spirituality) as well as the overall quality of life in relation to the general population of the Czech Republic. The results of the research showed that the differences in the areas related to experience, social relations, environment and spirituality are statistically significant, but to a lesser extent compared to significantly

worse quality of life in the domains of physical health (98.5% as a reason for pain, 94% of fatigue) and the level of independence. The obtained findings are at odds with some of the studies cited by Kaas and Tothova, which highlight the numerous problems that the symptoms of pain, fatigue, and others cause within family participation, married life, and social relationships (Broome & Llewelyn, 1995; Chung et al., 2016; Hari, 2015). The lower statistical significance in the social domain should certainly not be neglected when planning rehabilitation, as some aspects of the mentioned areas were evaluated very negatively. The qualitative research design and the individual approach certainly reveal in more detail in which domains of quality of life these patients have problems and whether they are solely due to the disease itself or due to other circumstances, since healthy people also face physical and social restrictions (Kaas & Tothova, 2017).

Regarding the association between demographic variables and the participation in diverse roles of persons with rheumatoid arthritis, the presence of restrictions related to increased unemployment, i.e. decreased work engagement, was shown to be more frequent, while other variables were not associated with the achievement of the respondents in the Importance of Participation in Diverse Roles and the Restriction in Role Participation subscales. The chronicity of typical arthritis symptoms, functional limitations caused by the inflammatory process, limited mobility and deformities can be a cause of physical disability and have an impact on loss of job, income, or change in family status (Giacomelli et al., 2015; Van Jaarsvel et al., 1998).

A group of Dutch researchers (Van Jaarsvel et al., 1998) found a negative impact of RA on work ability and social participation in the first years of illness, more accurately according to their results in the first six years of symptom recording. The cross-sectional study involved 363 patients with a disease duration of SD of 2.8 years. It was found that in the group of men aged 45-64, there were 63% of unemployed compared to 32% according to the general data ($p < 0.01$), while in the female patients in the same age group 76% were unemployed compared to 67% according to the general data ($p < 0.05$). 59% of employed patients reported to have had problems at work due to RA while the number of hours in a work week is reduced. 41% of the unemployed patients believe it is a consequence related to RA.

Activities related to unpaid and home-based, day-to-day chores have also been reduced. People with RA have difficulties in the workplace due to the daily pain in various segments, especially the hands, they become fatigued quickly, they are endangered by physically demanding working conditions and an unsuitable environment. The discrepancy between work requirements and the ability of an employee with chronic health problems results in reduced self-efficacy and absenteeism. According to some data, RA employees are absent for 40 days per year compared to the average 6.5 days of sick leave (National Audit Office, London, 2009), which implies reduced productivity, and the impact of this chronic illness is not only reflected in the high cost to the individual and the employer but also the society. Ongoing health problems in relation to work requirements threaten the employee's status, hence one-third of RA employees leave work within three years of diagnosis and as much as 50% within ten years (Hammond et al., 2017).

CONCLUSION

Based on the results of the research, it can be concluded that persons with RA do not differ greatly from those of the general population when it comes to the perception of the importance of participation in diverse roles in the social context in which they exist, which is largely in line with the findings of other researchers. However, the restrictions characteristic for RA significantly limit the social participation of these persons. The findings of this research may be of use to practitioners in working directly with people with RA in the rehabilitation process. On the other hand, these findings could serve as a starting point for future studies focusing on the issue of social participation of persons with RA.

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