

# Sociodemographic, Psychological and Clinical Profile of Greek Patients with Rheumatic Diseases Undergoing Treatment in Primary Care

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**Κοινωνικοδημογραφικό, Ψυχολογικό και Κλινικό Προφίλ Ελλήνων Ασθενών με Ρευματικές Παθήσεις που Υποβάλλονται σε Θεραπεία στην Πρωτοβάθμια Φροντίδα Υγείας**

Περίληψη στο τέλος του άρθρου

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**Introduction:** Rheumatic diseases represent a broad spectrum of usually chronic conditions that can affect multiple organ or/and systems. Their impact involves not only physical performance and difficulty to perform professional or everyday tasks due to their symptoms but also uncertainty regarding personal performance, psychological distress, anxiety and depressive symptomatology with consequent effects on their family, professional and social life, and even on family income. **Aim:** The aim of this study was to describe the sociodemographic characteristics and the clinical profile through the assessment of certain characteristics and clinical parameters of patients with rheumatic diseases treated at a public outpatient rheumatology clinic in Athens. **Material and Method:** Sociodemographic and clinical data (gender, age, marital status, religion, occupation, educational level, comorbidity, pain etc.) was collected: (a) from the medical records of the patients, (b) during the patients' regular follow-up visit between July 2015 and July 2016, by using a specific questionnaire. Moreover, participants were also asked to complete Zung Self-Rating Depression Scale (SDS) and Anxiety Scale (SAS). Statistical analysis was performed with the SPSS statistical software package, version 23.0. **Results:** The majority of participants were female (61.1%) and the age group of patients >50 years old was the most represented (47.22%). 46.31% of the sample had a university-level education and the higher proportion of participants (55.56%) were married and employed (66.67%); while the 37.96% had left their job because of their disease. Rheumatoid arthritis was the most common rheumatic disease (45.37%), followed by psoriatic arthritis, (23.15%), ankylosing spondylitis

(20.37%), and systemic lupus erythematosus (11.11%). More specifically, 68.52% of patients had disease in remission but 53.71% of them stated that they experienced moderate or severe pain. It is noted that the 28.7% of those patients used antidepressant or antianxiety medication. 22.22% of the female participants had experienced a miscarriage in the past. According to our findings, 44.6% and 41.5% of the sample were assessed with a degree of depression and anxiety, respectively. More specifically, 25% were assessed with moderate to severe depression, while 21.3% exhibited moderate to severe anxiety. **Conclusions:** We found a considerable prevalence of depressive and anxiety disorders in our study and consequently an early screening in these patients is highly recommended. Our results contribute to a better understanding of the clinical, psychological and sociodemographic characteristics of patients with rheumatic diseases. This knowledge can be of great importance for the early recognition of potential risk factors and the design of nursing interventions aimed at reducing the impact of the disease on the patient's life and the appearance of psychological disorders, as well as improving the well-being of the patients with rheumatic diseases.

**Key-words:** Sociodemographic profile, rheumatic diseases, clinical characteristics, depression, anxiety.

## Introduction

In recent decades, a great variety of chronic diseases have played an important role in morbidity and mortality of the world population, affecting not only the elderly but also young people of working-age.<sup>1</sup> Among the chronic diseases, the rheumatic diseases represent a broad spectrum of conditions that affect many organ or/and systems and usually have chronic course. Rheumatoid arthritis (RA), ankylosing spondylitis (AS), psoriatic arthritis (PsA), systemic lupus erythematosus (SLE) and systemic sclerosis (SSc) are chronic inflammatory diseases that produces remarkable morbidity and disability and represent a major public health problem.<sup>2,3</sup>

By 2030, the prevalence of arthritis is estimated to have an increase affecting near 25% of the adult US population.<sup>4</sup> The 2007 updated report of the United States National Arthritis Data Workgroup has estimated that osteoarthritis affects 27 million adults; rheumatoid arthritis, 1.3 million adults, spondyloarthropathies, 0.6–2.4 million adults; and systemic lupus erythematosus, 161,000–322,000 adults in the US.<sup>5,6</sup> Rheumatic diseases are very common in the general adult population of Greece; 26.9% of adults currently have active or chronic rheumatic disease in remission; almost one in 4 adults suffers from rheumatic disease.<sup>7</sup>

The high prevalence of rheumatic diseases in the general adult population<sup>7–9</sup> and their association with significant morbidity<sup>10,11</sup> has a considerable social and economic impact.<sup>10</sup> They are among the most common diseases managed at the primary health care level, as well as the leading cause of disability in persons older than 15 years old.<sup>10–12</sup> Pain, dysfunction or symptomatology from internal organs and skin, along with hand and foot deformities are commonly seen in these patients. Rheumatic diseases, if not treated properly, can lead to joint destruction and deformity, with subsequent functional limitations and direct impact on patients' quality of life.<sup>13</sup> More specifically, if untreated, 20–30% of patients with rheumatoid arthritis will become permanently unable to carry out their routine activities in less than three years after diagnosis.<sup>14</sup> This impact overall functioning and involves even personal issues such as difficulty to perform professional or everyday tasks, uncertainty regarding personal performance, psychological distress, anxiety and depressive symptomatology with consequent effects on professional, family and social life. This may lead to changes concerning employment status and consequently affect the family income.<sup>13</sup> Patients with rheumatic diseases usually have considerable comorbidity, and the presence of psychological or psychiatric disorders is noted. There-

fore, the treatment should be multidimensional engaging different health professionals and implementing both drug and non-drug therapies, based on the individualized patient's needs.<sup>15</sup>

Thus, considering the importance of enhancing the knowledge about rheumatic diseases, this study aimed to describe the sociodemographic characteristics and the clinical profile through the assessment of certain characteristics and clinical parameters of patients with rheumatic diseases treated at a public, in the frames of National Health System, outpatient rheumatology clinic in Athens. The findings of this study provide information for the early recognition and identification of patients' psychological, social and physical needs and subsequently, the development of timely nursing assessment and interventions aimed at reducing the impact of rheumatic diseases and improving patients' quality of life.

## Material and Method

The study participated patients attending a Greek NHS rheumatology outpatient clinic with the use of Public Social Insurance, located in Athens, between July 2015 and July 2016. The sample consisted of 108 patients, aged over 18 years old, with a primary diagnosis of systemic lupus erythematosus, rheumatoid arthritis, ankylosing spondylitis and psoriatic arthritis. It is a convenience sample of patients visiting periodically the specific clinic as outpatients in the frames of their regular follow up assessment.

The protocol was approved by the local Institutional Research and Ethics Committee. Written informed consent was obtained by the researchers prior to the study participation. Data collection guaranteed anonymity and confidentiality. All subjects were informed of their right to refuse or discontinue participation in the study. Patients who presented inadequate knowledge of the Greek language and inability to effective oral verbal communication were excluded. Overall participation rate was 86.4% and no significant difference, in terms of sociodemographic and clinical variables, was noticed between non-responders and responders.

Demographic and clinical data were collected from the medical records of patients and through interviews with the use of a specific questionnaire designed by the researchers to obtain the sociodemographic and clinical data. All patients visiting the their regular follow-up visit to the outpatient clinic during the study period and fulfilled the induction criteria were asked to participate. The sociodemographic variables assessed were age, sex, race, place of residence, marital status, number

and age of children, current employment status and level of education. Regarding the clinical variables, the type and duration of the disease since diagnosis were also investigated. The intensity of pain was measured with the use of a numeric analog scale. This scale ranges from 0 to 10 – where 0 indicates absence of pain and 10 represents the maximum possible pain intensity. Disease duration was defined as the time difference between the date of diagnosis and the date of entry into the study. Additional parameters like disease activity, comorbid medical conditions, medicines in use and previous experiences were also investigated.

Moreover, the participants were asked to complete the Zung Self-Rating Depression Scale (SDS)<sup>16</sup> and the Zung Self-Rating Anxiety Scale (SAS).<sup>17</sup> Zung SDS and SAS each comprise an evaluation of 20 depression and anxiety symptoms and signs in an ascending numerical manner (each item scores from 1 to 4 points), with higher scores reflecting higher intensity of the relevant symptomatology.

The Zung Self-Rating Depression Scale is a validated 20-item self-report questionnaire with four response options per item, translated and validated in the Greek language<sup>18</sup> that is widely used as a screening tool, covering affective, psychological and somatic symptoms associated with depression. The questionnaire takes about 10 minutes to complete, and items are framed in terms of positive and negative statements. It can be effectively used in a variety of settings, including primary care, psychiatric, drug trials and various research situations. A total score is derived by summing the individual item scores, and ranges from 20 to 80, with a score of 50 or greater indicating depression. Most people with depression score between 50 and 69, while a score of 70 and above indicates severe depression. The scores provide indicative ranges for depression severity that can be useful for clinical and research purposes, but the Zung scale cannot take the place of a comprehensive clinical interview for confirming a diagnosis of depression.

Self-rating Anxiety Scale is a self-report assessment device, introduced by Zung, that has been widely used in research and in clinical practice for the detection of anxiety. SAS consists of 20 items rated on a 1–4 Likert type scale. Five of the items are reverse scored. Answering the statements, a person should indicate how much each statement applies to him or her. Overall assessment is done by total score. The total SAS score range from 20 (no anxiety at all) to 80 (severe anxiety), with 20–44 as Normal Range, 45–59 Mild to Moderate Anxiety Levels,

60–74 Severe Anxiety Levels, 75–80 Extreme Anxiety Levels.

### Statistical analysis

The descriptive data is reported using frequencies, percentages, means and standard deviations. The analysis was performed with the SPSS Statistical software package, version 23.0. The significance level  $\alpha$  was set below 5%.

### Results

The study enrolled in total 108 patients (42 (38.9%) were men and 66 (61.1%) were women) with rheumatic diseases. The vast majority were Greek (96.3%), living in the broader area of Athens (75.94%) and only 18.51% were residents from urban and 5.55% rural areas mainly from Attica. Moreover, the greater age group was that of >50 years old (47.22 %) and they were married (55.56%), with children (71.3%). Regarding their educational level the vast majority (93 patients, 86.12%) had at least attended secondary school and fifty patients (46.31%) were university graduates. Almost two of three patients (66.67%) were employed, while the 13.89% of the participants were housekeepers. It was noticeable that 37.96% of the participants included in this study stated that they had left their job due to health-related reasons. More analytically the sociodemographic characteristics of the participants are presented in table 1.

The clinical characteristics of the study population are illustrated in table 2. Rheumatoid arthritis was the most common rheumatic disease (49 patients, 45.37%), followed by psoriatic arthritis, (25, 23.15%), ankylosing spondylitis (22, 20.37%), and systemic lupus erythematosus (12, 11.11%). Disease duration ranged from 1 month to more than 10 years. Almost one in three participants (31.48%) did not achieved remission and was suffering from active disease, with pain and inflammation at that point in time; while the remaining 68.52% of the patients had inactive disease or limited symptomatology, which means that they had achieved clinical remission. However, that was achieved due to adequate therapy and that is also expressed by the fact that 99 (91.67%) are under rheumatologic drug therapy.

Fifty patients (46.29%) reported no or mild pain (0-2), 35 (32.41%) moderate pain (3-6) and 23 (21.30%) severe pain (7-10). Cardiovascular disease was the most common comorbid medical condition among the participants of the particular study sample, followed by autoimmune disease, diabetes mellitus and depression. The major-

ity of our patients (91.67%) were under rheumatological treatment; while 28.7% of them also used antidepressant or antianxiety medication. It is noted that 22.22% of the patients had experienced a miscarriage in the past. Moreover, 48.1% of the participants stated that another individual from their friendly or family environment was suffering from a rheumatic disease. Regarding the level of information for their health problem, 18.5% of the participants reported being not well informed of their health problem, while 21.3% were well informed and 25% very well-informed patients.

The results with the use of Zung Self-Rating Depression Scale (SDS) and Anxiety Scale (SAS) revealed that 44.6% of patients present a degree of depression. Among patients exhibiting depression, 13% were found to have severe depression, 12% had moderate depression and 19.6% had mild depression. Moreover, 41.5% of the participants reported anxiety symptoms. A percentage of 4.3% reported severe anxiety levels, whereas 17% of patients experienced moderate anxiety and the majority (20.2%) mild anxiety.

### Discussion

The results of the study, despite the limitations are presenting a view of the social and clinical profile of patients with rheumatic diseases. There was a slight predominance of female patients (61.1%) but this gender distribution was not unexpected since this is consistent with existing literature indicating a slight gender difference, with greater incidence of rheumatic diseases among women compared to men.<sup>8,19-21</sup> The higher prevalence of rheumatic diseases among women and the higher incidence of autoimmune connective tissue disorders in women has been widely acknowledged and there is still a great interest whether there is a hormonal influence effect or not.<sup>5,22-24</sup>

Females have enhanced immunoreactivity, compared with males, with higher immunoglobulin levels and enhanced antibody production to antigen stimulation.<sup>25</sup> Oestrogen and prolactin are both proinflammatory hormones<sup>26</sup> and the increased exposure in women may, in part, explain the high female: male ratio. The reason for this gender difference has not been fully established, but studies have postulated that lower levels of testosterone, high prolactin levels during breastfeeding and greater severity of symptoms, may be possible explanations.<sup>27</sup> Moreover, according to previous reports in Greece, rheumatic diseases were more common among women than men, with a ratio of 1.7:1 and a prevalence that was

**Table 1.** Sociodemographic characteristics of the study population (n=108)

Variables	Groups	n (%)
Gender	Female	66 (61.1%)
	Male	42 (38.9%)
Age group (years)	<20	2 (1.86%)
	20–29	10 (9.26%)
	30–39	18 (16.66%)
	40–49	27 (25%)
	>50	51 (47.22%)
Race	Greek	104 (96.3%)
	Other	4 (3.7%)
Residence	Athens	82 (75.94%)
	Urban area	20 (18.51%)
	Rural area	6 (5.55%)
Marital Status	Married	60 (55.56%)
	Living with partner	6 (5.55%)
	Single	23 (21.3%)
	Separated/Divorced	14 (12.96%)
	Widowed	5 (4.63%)
Having children	Yes	77 (71.3%)
	No	31 (28.7%)
Number of children	0	31 (28.7%)
	1	26 (24.07%)
	2	43 (39.82%)
	>2	8 (7.41%)
Age of children (years)	0–2	2 (1.85%)
	3–6	16 (14.81%)
	7–11	12 (11.11%)
	12–18	36 (33.33%)
	>18	42 (38.9%)
Level of education	Illiterate	6 (5.55%)
	Primary School/Elementary	9 (8.33%)
	High School/Secondary	43 (39.81%)
	University graduates	20 (18.51%)
	Technological Educational Institute graduates	21 (19.48%)
	Master degree (MSc)	6 (5.55%)
	Doctoral degree (PhD)	3 (2.77%)
Employment status	Unemployed	6 (5.55%)
	Housewife/Housekeepers	15 (13.89%)
	Retired	15 (13.89%)
	Public servants	14 (12.98%)
	Employees in private sector	26 (24.07%)
	Medium/small business owners	32 (29.62%)
Quit job	Yes	41 (37.96%)
	No	67 (62.04%)

**Table 2.** Clinical characteristics of study population (n=108).

Variables	Groups	n (%)
Clinical diagnosis	Rheumatoid arthritis	49 (45.37%)
	Psoriatic arthritis	25 (23.15%)
	Ankylosing spondylitis	22 (20.37%)
	Systemic lupus erythematosus	12 (11.11%)
Disease duration	1 month to 2 years	21 (19.44%)
	3 to 5 years	19 (17.59%)
	6 to 10 years	25 (23.15%)
	>10 years	43 (39.82%)
Disease activity	Relapse	34 (31.48%)
	Remission	74 (68.52%)
Intensity of pain 11-point Likert scale (0= no pain; 10=maximum possible pain)	No to Mild (0–2)	50 (46.29%)
	Moderate (3–6)	35 (32.41%)
	Severe (7–10)	23 (21.30%)
Comorbidity	Yes	44 (40.74%)
	No	64 (59.26%)
Comorbid medical disease	Cardiovascular disease	19 (17.59%)
	Autoimmune disease	14 (12.96%)
	Diabetes mellitus	9 (8.33%)
	Depression	2 (1.85%)
Rheumatological drug use	Yes	99 (91.67%)
	No	9 (8.33%)
Experience of a miscarriage	Yes	24 (22.22%)
	No	84 (77.78%)
Previous experience	Yes	52 (48.1%)
	No	56 (51.9%)
Health information	Poor	20 (18.5%)
	Enough	38 (35.2%)
	Good	23 (21.3%)
	Very good/excellent	27 (25%)
Antidepressant or antianxiety medication use	Yes	31 (28.7%)
	No	77 (71.3%)

increasing with age.<sup>8</sup> This last notice was in accordance to our findings, since we also noticed an increased ratio in relevance to higher age.

According to our finding the majority of patients were older than 50 years old. This finding shows that rheumatic diseases are more common in this age group and is consistent with previously reported data.<sup>8,23,24</sup> The majority of people suffering from rheumatic diseases are elderly and since the age of the population is increasing, the

burden related to these diseases is expected to increase in the near future.<sup>28</sup>

Greece is located in southeastern Europe and has ethnic homogeneity, since the majority of inhabitants are Caucasian Greeks.<sup>29</sup> Therefore, the Greek population is a relatively homogeneous Caucasian population. Consequently, the majority of patients in our study were Greek.

The majority of the sample was noted to be married and have children. Other researchers, such as Viswanath

et al<sup>30</sup> concluded to similar results. This finding may be partially explained by the age distribution. A great proportion of our sample patients are aged between 30 and 50 years reflecting adults who are in the appropriate age group to be married. The above data may indicate a cohort with a lower level of rheumatic disease burden. The contribution of the individual components of this category was not further analyzed, hence it is not possible to infer any further information about the contribution of each component to this finding.

The proportion of participants with a university education was quite high (46.31%) in our study. They were previous studies such as Docampo et al<sup>31</sup> or Mayorga et al<sup>32</sup> who also reported samples with patients with high educational level (their sample included a higher percentage of individuals who have attended a university). On the other hand, there are several other studies that found elevated percentages of the population with low levels of education, like Martín-Aragón et al,<sup>33</sup> who studied a group where there was a predominance of individuals who have completed primary studies. It is obvious that this difference is due to the methodology limitations of each study and that in most cases the selection of the participants is not random but it is rather a convenience sample such as in our case.

We found that disease clinical parameters suggested a rheumatic disease cohort with generally low disease activity and relatively low visual analogue scale scores for pain. Characteristically, a high percentage of 46.29% of our patients rated no or mild pain. Disease remission reported in this study was 68.52% among the participants, achieved of course with adequate drug therapy. Mikuls and Saag<sup>34</sup> also concluded to high remission rate (up-to 95%) recorded in their study. In other reports, there is low remission rate, like Viswanath et al<sup>30</sup> or Owino et al<sup>35</sup> who studied a group in which the remission rate was approximately 12%. The data varies widely in the literature. Based on the low levels of disease activity and moderate levels of pain reported in this study, it appears that rheumatic disease in the majority of the sample was well managed. The possible contributing factors to the high remission rate recorded in our study include good compliance with medication and good management due to scarcity of adequately trained health personnel.

The above data once again indicates a cohort with a lower level of rheumatic disease burden. That means that a great number of participants are not suffering from symptoms that limit their ability to be active workers and therefore this explains in a satisfactory way that the

majority of the participants were employed, despite the age distribution. Someone would think that this is partly unexpected in the context of a condition like rheumatic diseases, mainly since previous studies have already illustrated the negative impact of rheumatic diseases on allowing sufferers to sustain employment mainly due to the functional disabilities associated with the disease.<sup>36,37</sup> However, in accordance to this finding, Díaz-Mendoza et al<sup>38</sup> reported in their study that 70% of the patients with rheumatic disorders stated that their disease did not affect them or affected them very little, in response to the question of how difficult was to get a job due to their disease. Furthermore, 75% answered that their disease did not affect or affected very little their ability to carry out their work.<sup>38</sup>

The differences concerning the level of education and of professional standing are easily explained by the dissimilarities in the municipalities in which the studies are carried out and the selection of the patient samples (reference population, primary care or specialized clinics etc.).

The above clinical and physical characteristics revealed that the majority of the participants seem to have good functional status overall, despite the chronicity of the disease. It is noticeable that almost four in ten patients have been diagnosed with a rheumatic disease for more than 10 years. This finding was partly explained by the adequate management and the compliance with therapy, since all the participants were attending a regular follow up treatment program. However we have to acknowledge that there is also a case of a number of external factors such as economic crisis to affect the high employment status. We found that there was a number of participants that were suffering from symptoms related to their rheumatic disease but they still were active workers. This may reflect the resilience of the study population, the adequate rheumatic disease control and/or the economic demands of a population group in a country affected by economic crisis that forces them to continue employment, even in the face of the challenges of living with rheumatic disease. Furthermore, the high employment rate of our patients is compatible with the fact that the majority are highly educated and therefore their jobs may be less demanding in relevance to the physical constraints due to the disease. Moreover, their higher education may be beneficial in the understanding of the disease, the selection of the adequate treatment and better compliance.

On the other hand, we have to notice that 37.96% of the participants left their job due to the disease burden that reduced or restricted a patient's ability to work or perform different tasks. Rheumatic diseases represent a major public health problem recognized as a leading cause of disability that can greatly affect the productivity or functional capacity of an individual.<sup>2</sup> Patients struggle most of the time to overcome the debilitating nature of their disease and this affects different aspects of their daily life.<sup>37</sup> In regard to the Greek adult population, rheumatic conditions stand as the first cause of chronic health problems with both long- and short-term disabilities.<sup>3</sup>

It was noticeable that more than one in four women stated an experience of spontaneous miscarriage in the past because of their disease and treatment. In a previous study, Østensen<sup>39</sup> had also reported an increased rate of pregnancy loss, observed due to autoantibodies which are present in most of the rheumatic diseases and can interfere with fertilization, implantation, embryonic development and placental function. In addition, a great percentage of the participants stated having no children.

A total of forty-four out of the one hundred and eight study patients (40.74%) had various co-morbid conditions. The most common co-morbid condition in our sample was cardiovascular disease, followed by autoimmune disease, diabetes mellitus and depression. Mayorga et al<sup>32</sup> also found an elevated prevalence of diabetes mellitus in their sample. Additionally, in the study by Junior et al<sup>40</sup> depression and diabetes were between the main comorbidities found among their patients. Interestingly, Joyce et al<sup>41</sup> reported that depression in patients with rheumatic diseases could stand as an independent risk factor for cardiovascular disease. Our findings indicate a great proportion of patients under antidepressant or anti-anxiety treatment and quite high incidence of depression. Therefore, depression can be acknowledged as a comorbid condition. Additionally, more than one-third of respondents was assessed with anxiety (41.5%) or/and depression (44.6%). These results are consistent with the previously described findings in literature, as the prevalence of anxiety and depression in patients suffering of rheumatic diseases have been found higher than the general population in several studies.<sup>42-45</sup> It is undeniable that patients with rheumatic diseases struggle most of the time to overcome the debilitating nature of their disease and this affects different aspects of their daily

life. Therefore, this contributes to high level of anxiety and depression, which probably justifies the finding of this study.

Our study is limited by the lack of control group. A multinational study revealed a prevalence of depressive and anxiety disorders in the Greek primary care setting at 6.5% and 15%, respectively.<sup>46</sup> Therefore, despite the absence of a control group, it can be rationally assumed that our population with rheumatic disease exhibited increased prevalence of depression and anxiety disorders. A recent study estimated the prevalence of major depressive disorder (MDD) at 25.4 % (using the Mini International Neuropsychiatric Interview or MINI) among Greek patients diagnosed with rheumatology diseases attending the outpatient rheumatology department.<sup>47</sup> It is evident that the prevalence rate in studies examining the prevalence of depression and anxiety in rheumatic diseases may be different, affected by methodological issues and due to the use of different diagnostic tools.

Depression and anxiety within the context of a chronic, potentially disabling condition like rheumatic diseases is a significant, but complex phenomenon to understand and investigate. Despite some of the challenges faced with screening for detecting and diagnosing depression; when identified, depression has been found to be responsive to antidepressant medication. This may indicate a need for closer monitoring of depression and anxiety, more regular referral to specialist psychiatric services of patients who are not optimally responsive to first-line antidepressant treatment and/or the need for a multidisciplinary approach to the management of depression and anxiety in these patients.<sup>42-45</sup>

The management of the aforementioned factors in rheumatological disorders may be improved by adopting a stepped care approach targeting these associated factors. Health care professionals should support patients in a professional manner by providing clear, relevant information and planning a self-care program based on assessment of their needs. Holistic approach demands emphasis on education so as to enable patients to manage effectively their new life and safety. 46.3% of our participants were very well or well-informed patients. Detailed information allows patients to gain control over symptoms or treatment and may improve care process or facilitate self-care. Discussing about the disease may help to rectify false beliefs and set realistic goals. Moreover, patients may seek for guidance and information to confront with health-related issues. Adequate knowledge

is a tool for patient to manage and cope with the burden of a disease.<sup>48</sup>

On the contrary, the 18.5% of the participants reported being little informed of their health problem. Insufficient information may arise several doubts that undermine effective therapy since patients do not know the precise way to handle with the disease. Furthermore, several misconceptions may result in self-imposed restrictions that can adversely affect common activities. Therefore, patient being unable to understand the provided information should be early recognized by health-care professionals.<sup>48</sup> Almost, half of the participants stated that at least another individual from their family or friendly environment suffers from a rheumatic disease. It is well acknowledged that the degree of awareness about the disease and the effectiveness of care is interrelated with better psychological defenses and is influenced by previous experiences. Consequently, the influence of previous experiences may be crucial for the adequate disease management and especially for patients with no or limited information.

### Limitations

Our study has certain limitations. The patient group was relatively small and it was a convenience sample from a specific outpatient clinic, therefore it is referenced from a specific sector of the Greek population and therefore limits the ability to generalize results to Greek population. Moreover, the sample were individuals with rheumatic diseases who visited the outpatient clinic at a specific time period. The findings may, therefore, not be generalizable to the greater Greek population where access and standard of healthcare may be dependent on resources and settings (provincial variations, public versus private healthcare, rural versus urban, outpatient versus inpatient).

In addition, there was not used a control group to provide a comparison of the sociodemographic and psychological characteristics of the study population with a representative sample of general Greek population. However, the sociodemographic and clinical characteristics were compared to those described in international and national literature. Moreover, our observations were collected at a specific time period; therefore, it cannot be said whether these observations are a constant factor in the studied population or a finding at only one point in time. In this study, the diagnoses and the severity of anxiety and depression were based on self-reported scales and as such, are limited to self-perception rather than a more

objective and structured clinical interview. Recall bias by patients should also be acknowledged during the survey.

### Conclusions

This study presented the sociodemographic, psychological and clinical profile of patients with common rheumatic diseases seen in a public outpatient rheumatology center. We found that rheumatic diseases were associated with marked comorbidity, also involving psychological-psychiatric disorders, like depression and anxiety. The use of medications is high and the diseases have a considerable impact on daily life. Conclusively, rheumatic diseases constitute a major health problem and the study of sociodemographic and clinical profile of patients may contribute to the knowledge and early recognition of potential risk factors.

It is noted that health professionals may have failed to primarily detect patients experiencing mild to moderate or even severe depressive or anxiety symptoms. An important goal of comprehensive rheumatic disease management should be to sensitize the clinician to the need and the means to detect and treat early psychological-psychiatric disorders like depression and anxiety because their incidence is high among patients with rheumatic diseases. The early detection and treatment of their psychological-psychiatric disorders as well as their social and physical needs is estimated that would improve more the quality of life and well-being of these patients. We recommend that in order to eliminate emotional burden of this sensitive and challenging population a continuous evaluation by a multidisciplinary team should be implemented.

More specifically, the results regarding the sociodemographic and clinical variables are essential for the planning of care/nursing actions for these clients. This knowledge allows health professionals and, especially, nurses to develop strategies aimed at controlling or reducing predictors of a worse impact of the disease and/or how to direct specific actions for those most vulnerable to a worse impact. Moreover, a deeper knowledge regarding the sociodemographic and clinical characteristics could be beneficial for a better care planning and for the development of an appropriate strategy for a high quality care provided to outpatients with rheumatic disease.

More studies of this kind are needed to better understand and manage the complexity of rheumatic diseases. Ending, this study may provide a gateway to further research into the complex interaction between the human immune system and the human psychism.

## ΠΕΡΙΛΗΨΗ

**Κοινωνικοδημογραφικό, Ψυχολογικό και Κλινικό Προφίλ Ελλήνων Ασθενών με Ρευματικές Παθήσεις που Υποβάλλονται σε Θεραπεία στην Πρωτοβάθμια Φροντίδα Υγείας**

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**Εισαγωγή:** Οι ρευματικές παθήσεις αντιπροσωπεύουν ένα ευρύ φάσμα νοσηρών καταστάσεων που επηρεάζουν πολλά όργανα και συστήματα και συνήθως έχουν χρόνια πορεία. Ο αντίκτυπος των ασθενειών αυτών περιλαμβάνει προσωπικά ζητήματα όπως είναι η δυσκολία εκτέλεσης επαγγελματικών ή καθημερινών καθηκόντων, η αβεβαιότητα όσον αφορά στην προσωπική απόδοση, η ψυχολογική δυσφορία, το άγχος και η καταθλιπτική συμπτωματολογία με συνεπακόλουθες συνέπειες στην επαγγελματική, την οικογενειακή και κοινωνική ζωή, ακόμη και στο οικογενειακό εισόδημα. **Σκοπός:** Σκοπός αυτής της μελέτης ήταν να καταγραφούν τα κοινωνικοδημογραφικό, ψυχολογικό και κλινικό προφίλ των ασθενών με ρευματικά νοσήματα που παρακολουθούνται στα εξωτερικά ιατρεία δημόσιας ρευματολογικής κλινικής στην Αθήνα. **Υλικό και Μέθοδος:** Έγινε συλλογή των κοινωνικοδημογραφικών και κλινικών χαρακτηριστικών (φύλο, ηλικία, οικογενειακή κατάσταση, θρησκεία, επάγγελμα, εκπαιδευτικό επίπεδο, συννοσηρότητα, πόνος κ.λπ.): (α) από τους ιατρικούς φακέλους των ασθενών, (β) με τη χρήση ειδικού ερωτηματολογίου κατά τη διάρκεια της τακτικής παρακολούθησης των ασθενών κατά τη χρονική περίοδο Ιουλίου 2015 – Ιουλίου 2016. Οι ασθενείς επίσης συμπλήρωσαν τις κλίμακες Zung Self-Rating Depression Scale (SDS) και Anxiety Scale (SAS). Η στατιστική ανάλυση των στοιχείων έγινε με το στατιστικό πακέτο Statistical Package for Social Sciences (SPSS), version 23.0. **Αποτελέσματα:** Η πλειοψηφία των συμμετεχόντων ήταν γυναίκες (61,1%) με την ηλικιακή ομάδα των >50 ετών να εμφανίζει αυξημένη συχνότητα (47,22%). Το 46,31% του δείγματος είχε πανεπιστημιακή εκπαίδευση και ήταν έγγαμοι (55,56%), με πλήρη απασχόληση (66,67%), ενώ το 37,96% δήλωσε ότι είχε εγκαταλείψει την εργασία του λόγω της ασθένειας. Η ρευματοειδής αρθρίτιδα ήταν η πιο συχνή διάγνωση (45,37%), ακολουθούμενη από την ψωριασική αρθρίτιδα (23,15%), την αγκυλοποιητική σπονδυλίτιδα (20,37%) και τον συστηματικό ερυθρεμάτωδη λύκο (11,11%). Το 68,52% των ασθενών εμφάνιζε ύφεση των συμπτωμάτων της νόσου, ενώ το 53,71% παρουσίασε μέτριο ή σοβαρό πόνο. Σημειώνεται ότι το 28,7% αυτών των ασθενών χρησιμοποιούσε αντικαταθλιπτική ή αγχολυτική φαρμακευτική αγωγή. Το 22,22% γυναικών που πήραν μέρος στη μελέτη είχε βιώσει αποβολή στο παρελθόν. Τα ευρήματα έδειξαν ότι το 44,6% και το 41,5% του δείγματος εμφάνιζαν κάποιον βαθμό κατάθλιψης και άγχους αντίστοιχα. Το ένα τέταρτο αυτών (25%) είχε μέτρια έως σοβαρή κατάθλιψη, ενώ το 21,3% παρουσίασε μέτρια έως σοβαρή αγχώδη διαταραχή. **Συμπεράσματα:** Δεδομένης της υψηλής συχνότητας των καταθλιπτικών και αγχωδών διαταραχών στη μελέτη μας, συνιστάται η έγκαιρη διάγνωσή τους. Τα αποτελέσματα που προέκυψαν από τη μελέτη αυτή συμβάλλουν στην καλύτερη κατανόηση των κλινικών, ψυχολογικών και κοινωνικοδημογραφικών χαρακτηριστικών των ασθενών με ρευματικές παθήσεις. Η γνώση αυτή μπορεί να έχει μεγάλη σημασία για την έγκαιρη αναγνώριση των πιθανών παραγόντων κινδύνου και για τον σχεδιασμό των νοσηλευτικών παρεμβάσεων με στόχο τη μείωση των επιπτώσεων της νόσου στη ζωή του ασθενούς, τη μείωση των ψυχικών διαταραχών και τη βελτίωση της ευημερίας των ασθενών με ρευματικά νοσήματα.

**Λέξεις-ευρετηρίου:** Κοινωνικοδημογραφικό προφίλ, ρευματολογικές παθήσεις, κλινικά χαρακτηριστικά, κατάθλιψη, άγχος.

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