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Research Article

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Assessment of Patients' Behavior with Regard to Self-Care for Rheumatoid Arthritis

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Abstract

Objective(s): *The present study aims to assess of patients' behavior with regard to self-care for rheumatoid arthritis patients and to determine the relationship between self-care and their demographic characteristics.*

Methodology: *A descriptive study was conducted Rheumatology Center/Marjan Teaching Hospital/Babylon/Iraq, the study was carried out between 25th April, 2023 to 31th March, 2024. Non-probability, purposive sample of 40 patient were selected for the purpose of the study. The questionnaire was used to collect the data includes socio demographic, self- care model. Content validity of a questionnaire is determined through panel of experts in adult health nursing and internal consistency reliability is obtained through pilot study. data are collected through the use of the questionnaire and analyzed through the application of descriptive and inferential statistical approaches which are applied by using SPSS version 23 such as frequency, percentage, mean of score, standard deviation, ANOVA and T. test.*

Results: *The results of the study indicate a low level of self-care for patients with rheumatoid arthritis, and the percentage was 90%. The results by ANOVA of the study also indicated in demographic data that present significant difference between patients' self-care at pretest and occupation at p value (0.013). While, there is no significant difference between patients' self- care at pretest and sex, monthly income, resident.*

Conclusions: *The results of the study concluded that the level of self-care behaviors was low among patients with rheumatoid arthritis and they need to be taught self-care.*

Recommendations: *Based on the results that appeared in the study, we recommend that an educational program be organized to raise the level of knowledge in self-care for patients with rheumatoid arthritis*

Keywords: Assessment, Behavior, Self-care, Rheumatoid arthritis.

Introduction

Rheumatoid arthritis (RA) is a multifactorial autoimmune disease of unknown etiology, primarily affecting the joints, then extra-articular manifestations can occur. Due to its complexity, which is based on an incompletely elucidated pathophysiological mechanism, good RA management requires a multidisciplinary approach. The clinical status of RA patients has improved in recent years due to medical advances in diagnosis and treatment, that have made it possible to reduce disease activity and prevent systemic complications. The most promising results were obtained by developing disease- modifying anti-rheumatic drugs (DMARDs), the class to which conventional synthetic, biologic, and targeted synthetic drugs belong [1].

Chronic diseases require long-term adherence to treatment is important for the control of disease as well as prevention of complications. Non-adhere may lead to worsening of the disease, which may affect patients' quality of life [17].

The onset of RA arises usually between the age of 30 and 50, but may also occur at any other age. The prevalence of RA is believed to be around 1% worldwide, although it varies considerably among different populations. It is less prevalent in developing countries than in developed countries. In the Middle East and North Africa (MENA) region, the epidemiology of RA remains poorly understood with a dearth of data on its prevalence and disease activity. A recent global burden study estimated RA prevalence

in the MENA region as among the lowest at 0.16% [2]. While in North American and Northern Europe is 0.5 to 1.1% [3].

According to few studies, within 600 million individuals worldwide who were 65 years of age or older in 2000, there will be 2 billion by the year 2050. The German Federal Statistical Office estimates that 28% of people in 2030 and 33% in 2060 will be over the age of 65 [3].

The etiology of RA is very complex and is yet to be explored properly. However, a variety of risk factors such as hormonal, genetic and environmental can contribute in the development of the disease. The most commonly involved joints are the knee, elbow, metatarsophalangeal joints (MTP), proximal interphalangeal joints (PIP), toe PIP, lumbosacral phalangeal spine, and cervical spine [4,5].

Common features of RA include daily pain, depression, fatigue, physical disability, stiffness, and associated with psychological features. Pain, inflammation and joint damage is the leading cause for disability [6]. These physical restrictions in turn often lead to psychosocial problems. In the advanced stage, it can lead to substantial loss of mobility and functioning. In common people with RA concerned to have extreme pain and restriction of joint movement [7].

Most RA patients also suffer from muscle loss, progressive evolution that leads the patient to reduce his mobility, the capacity of displacement and the social interaction, affecting the most elementary daily activities. Contributes to decreased physical function and self-care in these patients [8].

Moreover, RA may cause extra-articular signs and symptoms such as, vasculitis, rheumatoid nodules, interstitial lung disease, cardiovascular disease, lymphoma and amyloidosis. In addition, patients with RA may develop specific deformities, like ulnar deviation, swan neck deformity (hyperextension at PIPs). Boutonniere deformity (flexion at PIPs), valgus or Varus, Baker cyst in the popliteal fossa [9].

The RA complications are not limited to apparent restrictions in mobility and activities of daily living, but obscure systemic effects of such diseases can also lead to organ failure, death or serious health problems such as pain, fatigue, sleep disturbance and changes in self- image. Such conditions can cause disabilities and permanent changes in the patients. The chronic nature of rheumatic diseases necessitates obtaining the required knowledge about the disease to make sound decisions for managing the health condition and developing a treatment plan tailored to the patient's lifestyle. Fundamental objectives and strategies to deal with such diseases include suppressing inflammation and autoimmune response, controlling pain, maintaining or improving joint mobility and functional status as well as increasing the patients' awareness about the disease process. Encouraging patients to adopt correct and proper self-care behaviors is an important factor which contributes to successful management of the disease. Self- efficacy also seems extremely important in managing RA. Unpredictable courses of the disease and its varying activity can make the patients find their disease uncontrollable and this can decrease their self-efficacy in handling it [10].

Self-efficacy is a person's self-confidence defined as one's belief in one's own ability to successfully organize and accomplish a particular task, behavior or any changes in cognitive status regardless of the underlying terms and conditions; it is also a prerequisite for behavior change which affects the amount of efforts and level of performance in reaching a goal. People with higher levels of self-efficacy hold a belief that they are able to control their life events effectively. Such a belief, which can affect their behaviors directly, creates a standpoint for them different from that of people with poor self-efficacy, its significant role in the initiation and maintenance of healthy behaviors, in the case of the occurrence of any chronic illnesses such as arthritis [10].

Self-care is usually defined as an individual's capability to deal with symptoms, treatment, physical and psychosocial consequences, and lifestyle changes inherent in living with a chronic status. It involves the decision-making and behaviors performed by individuals to manage illness on a daily basis and promote health, with or without the help or collaboration of healthcare providers [11].

Methodology

A descriptive study was conducted to identify a problem with numerical data that could be converted into usable statistics. The study was conducted in the rheumatology units at Marjan Teaching Hospital located in The Babylon/Iraq for the period from 25th April, 2023 to 31th March, 2024. A non-probability (purposive) sample consisting of (40) patients diagnosed with rheumatoid arthritis at Marjan Hospital and who are receiving treatment and rehabilitation.

Ethical approval was granted by the Scientific Research Ethics Committee at the College of Nursing, University of Baghdad. Patients' consent to participate in the study was obtained and a consent form was assigned. They were informed of their right to withdraw from the study.

Results

A questionnaire was developed based on a review of relevant literature and studies. The questionnaire consists of two parts; The first part includes social and demographic characteristics, which include: age, gender, level of education, marital status, occupation, monthly income, and residence. The second part includes self-care, which includes 25 items and the answer to them according to the three-point Likert scale, where it was (always, sometimes, never). The content validity of the study tool is investigated through the panel of (10) experts to determine its clarity, suitability, and adequacy to attain the objectives of the study.

Internal consistency was performed for the determination of the study instrument reliability. The Pearson correlation coefficient

(r) was used for the determination of the reliability of the study instrument. Test-retest correlation coefficients of reliability (r=0.87).

The study data were analyzed through the Statistical Package of Social Sciences (SPSS), version (23). A descriptive and inferential data statistical approaches were used including frequency, percentage, mean, mean of score, standard deviation, scores, t. test and ANOVA.

Variables			
		F	%
Age	20-less than 30	4	10.0
	30-less than 40	10	25.0
	40-less than 50	10	25.0
	50-60	**16**	**40.0**
	Total	40	100.0
Sex	Male	17	42.5
	Female	**23**	**57.5**
	Total	40	100.0
Education	Illiterate	3	7.5
	Read and write	8	20.0
	Elementary school	6	15.0
	Middle school	4	10.0
	High school	**19**	**47.5**
	Total	40	100.0
Marital status	Married	**33**	**82.5**
	Single	4	10.0
	Widow	3	7.5
	Total	40	100.0
Occupation	Governmental Employee	14	35.0
	Free business	5	12.5
	Retired	4	10.0
	Housewife	**15**	**37.5**
	Student	1	2.5
	Disabled	1	2.5
	Total	40	100.0
Monthly income	Sufficient	0	0
	Somewhat sufficient	15	37.5
	Insufficient	**25**	**62.5**
	Total	40	100.0
Resident	Urban	**23**	**57.5**
	Rural	17	42.5
	Total	40	100.0

F: Frequency, %: Percentage

Table 1: Distribution of the patient's socio-demographic characteristics (n=40).

The finding of this table indicated that regarding 40% of patients at age 50-60 years, 57.5% females, 47.5% high school graduate, 82.5% married, 37.5% housewife, 62.5% had insufficient monthly income, 57.5% urban resident.

Self-care levels	F	%
Low (1-1.66)	**36**	**90.0**
Moderate (1.67-2.33)	4	10.0
High (2.34-3)	0	0
Total	40	100

F: Frequency, %: Percentage

Table 2: Overall assessment of patients' behavior with regard to self-care for rheumatoid arthritis patients:

The finding shows that at the pretest 90% of patients had low level of self-care.

Variables	ANOVA	Sum of Squares	Df	Mean Square	F	Sig.
Age	Between Groups	.070	3	.023	1.279	.296
	Within Groups	.658	36	.018		
	Total	.729	39			
Education	Between Groups	.099	4	.025	1.381	.261
	Within Groups	.629	35	.018		
	Total	.729	39			
Marital status	Between Groups	.013	2	.006	.332	.720
	Within Groups	.716	37	.019		
	Total	.729	39			
Occupation	Between Groups	.243	5	.049	3.402	.013
	Within Groups	.486	34	.014		
	Total	.729	39			

Df: Degree of freedom; P: Significant; MS: Mean score: SD: Standard deviation; N: Sample size; f: frequency

Table 3: Relationship between self-care for rheumatoid arthritis patients and demographic Characteristics by ANOVA.

The finding in this table indicated that there is highly significant difference between patients' self-care at pretest and occupation at p value (0.013). While, there is no significant difference between patients' self-care at pretest and age, education, marital status.

Variables		N	MS	SD	T test	P value
Sex	Male	17	1.435	.164	1.878	0.068
	Female	23	1.515	.103		
Monthly income	Somewhat sufficient	15	1.473	.104	0.296	0.769
	Insufficient	25	1.486	.154		
Resident	Urban	23	1.486	.136	0.242	0.810
	Rural	17	1.475	.141		

Df: Degree of freedom; P: Significant; MS: Mean score: SD: Standard deviation; N: Sample size; f: frequency

Table 4: Relationship between self-care for rheumatoid arthritis patients and demographic Characteristics by T Test.

The finding in this table indicated that there is no significant difference between patients' self-care at pretest and sex, monthly income, resident.

Discussion

Part I: Discussion of socio-demographic characteristics:

The finding of this table indicated that regarding 40% of patients at age 50-60 years, A study was conducted in Iraq, Dhi Qar, which supported the current study, as it was found that 40% of the patients were between 50 and 59 years old [13,22].

The finding of the present study shows that the high percent 57.5% of the study sample are females more than males. A study was conducted in Iraq, Waist and Dhi Qar, and the current study agreed,

as the researcher found that 61.11% were female [23].

The finding of the present study shows that the high percent 47.5% high school graduate. There is a study conducted in Iraq, Maysan, which agreed with the current study in terms of educational level, as the majority of patients were in high school graduate [20].

There is a study that agreed with the results of this study, as there was a high percentage 50% Mild certification [5].

The finding of the present study shows that the high percent 82.5% married. A study was conducted in Iraq, Diwaniyah, which supported the current study, as it was found that the majority of patients are married [24].

A study was conducted in Iraq that supported the current study, as it was found that the majority of patients' marital status was married [15]. There is a study that supported the results of this study married 80.5% [10].

The finding of the present study shows that the high percent 37.5% housewife. A study was conducted in Wasit Iraq and agreed with the current study, as it was found in the occupation variable that 47.88% of patients were housewives [25].

A study was conducted in Iraq that supported the current results, as the study found that the majority of patients are housewife women [16]. There is a study conducted in Baghdad, Iraq, that supported the current study, as it was found that 80% of patients are housewives [19].

There is a study that agreed with the results of this study, as there was a high percentage of 67.6% (125) were housewives (9).
The finding of the present study shows that the high percent 62.5% had insufficient monthly income. There is a study that agreed with the results of this study, as there was a high percentage 65 % insufficient monthly income (4). A study was conducted in Iraq, Baghdad, on the elderly, and the current study rejected the monthly income variable, as the study found that 59.4% is almost sufficient [26].

The finding of the present study shows that the high percent 57.5% urban resident. There is a study that agreed with the results of the current study within the patients' residence, and the majority of patients were residents of urban cities, at a rate of 60% [18]. A study was conducted in Iraq, Diwaniyah, Diwaniyah Teaching Hospital, on patients, which supported the current study in the residence variable, as the study found that 66.7% of them live in urban areas [24].

The finding of the present study shows that the high percent 50 % of patients had 6-10 years' period of diagnosis with rheumatoid arthritis. There is a study that agreed with the results of this study, as there was a high percentage 56.3 % More than 5 years [7].

The finding of the present study shows that the high percent 55% had chronic illness [21]. There is a study that supported the results of this study The most prevalent comorbidities were arterial hypertension and diabetes mellitus, each with 35.2% [11].

The finding of the present study shows that the high percent 75% had family history of rheumatoid arthritis. There is a study that agreed with the results of this study 68% had family history of arthritis [6].

The finding shows that at the pretest 90% of patients had low level of self-care. There is a study conducted in Iraq that supported the results of the current study, as it found a decrease in patients' self-care before giving them an educational program [14].

The finding in this demographic Characteristics ANOVA indicated that there is highly significant difference between patients' self-care at pretest and occupation at p value (0.000). While, there is no significant difference between patients' self-care at pretest and age, education, marital status and period of diagnosis.

According to demographic Characteristics T test the finding in this table indicated that there is highly significant difference between patients' self-care and sex at p value (0.000). While, there is no significant difference between patients' self-care and monthly income, resident.

Conclusion

From the results of the study, we conclude that the majority of patients had a low level of self-care for rheumatoid arthritis and need education and courses to enhance their self-care behaviours. The study also showed Age and occupation affect patients' self-care, as there was a significant relationship between them, while there was no significant relationship between other demographic data.

Recommendations

Through the results of this study, which found a decrease in self-care for patients, we recommend that there be educational and counseling programs for patients in the rheumatology center, and there are illustrative methods about self-care behaviors to prevent the exacerbation of rheumatoid arthritis and reduce complications.

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