Original Research

Comparison Of Illness Perception, Quality Of Life, Psychological Capital, And Five-Factor Personality Traits In Women With Rheumatoid Arthritis And Normal Women In Isfahan

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Abstract:

Background:

This study aimed to compare the perception of disease, quality of life, psychological capital, and five personality factors in women with a psychosomatic disorder of rheumatoid arthritis and normal women in Isfahan.

Method:

The research was post-event (causal-comparative). The statistical population of this study included all women with rheumatoid arthritis in Isfahan in the spring of 2016 who were referred to medical centers in Isfahan and have medical records. The sampling method in this study was random cluster sampling, of which 30 were selected for the studied groups. The instruments used in this study included a short illness perception questionnaire (IPQ), a World Health Organization quality of life questionnaire, psychological capital scale, and a neo-five-factor personality test (short form).

Results:

The results showed that there is a difference between illness perception, quality of life, psychological capital, and five personality factors in all components except being pleasant and conscientious in women with the psychosomatic disorder of rheumatoid arthritis and normal women in Isfahan.

Conclusion:

Therefore, appropriate and timely psychological interventions can play an important role in prevention, progression of treatment, reduction of complications and outcomes, and reduction of treatment costs in patients with rheumatoid arthritis.

Keywords: Illness Perception, Quality of Life, Psychological Capital and Five Personality Factors, Rheumatoid Aarthritis

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Introduction

In the today's world, we are facing a significant increase in the incidence of chronic diseases (1). One of the chronic diseases that is almost considered in health care centers is rheumatoid arthritis. This illness is one of the progressive diseases, autoimmune and it is chronic and is associated with inflammation, pain and dryness of the joints and systemic symptoms. Global outbreak in 2010; 24% have been reported to be significantly more common in women than men (2). The prevalence of rheumatoid arthritis is estimated at 32% In Iran (3). Functional limitations and the unpredictable nature of rheumatoid symptoms have left patients with daily stress, difficulty in planning, and dependence on others for daily activities (2). And it has affected the psychological well-being of the individual. Also, daily stressors in people's lives increase fatigue and irrational anxiety about the illness and increase physical pain in patients with rheumatoid arthritis. Researchers believe that rheumatoid arthritis has many pathological effects on patients' mental health and affects various aspects of their physical and mental health (3). In one study by Al-Kandari et al. (2008) based on the results of research, they point out that rheumatoid arthritis has a negative effect on various aspects of patients' psychological health and most of the patients studied have an unfavorable condition in physical dimensions and mental activity and socio-economic (4). Also, the symptoms of severe psychological pathology such as depression and anxiety in these patients were more than the normal population. Currently, rheumatoid arthritis and its serious and unpleasant consequences are one of the most important health problems in the world. Different theorists have tried to explain the mental health status of chronic patients with different approaches, and each has covered an aspect of these disorders based on their own school of theory. In this regard, research has been done in which the factors and phenomena affected by chronic disease in the patient group and the control group have been compared and significant evidence has been obtained. Phenomena that are affected by a chronic debilitating illness are the perception of the disease, quality of life, psychological capital and the five personality structures (neuroticism, extraversion, openness to experience, agreement and conscientiousness) in these people. Perception of illness, which is a cognitive-emotional construct, includes information in five dimensions: nature, labeling and symptoms of the illness, such as fatigue and weakness, cause or belief about the underlying causes, duration, or perception of the duration of the disease in terms of whether it is acute, periodic or chronic, the expected outcomes or outcomes of the person in relation to the economic, social, psychological and physical effects, and the effectiveness of control, treatment and improvement (6) .In patients with rheumatoid arthritis, poor illness perception is associated with a variety of behavioral and emotional issues in all family members. Another variable that has attracted the attention of researchers in relation to patients with rheumatoid arthritis is the quality of life of these people. The World Health Organization (2012)'s definition of "quality of life" is: the assessment and perception of individuals of their living conditions, influenced by the cultural system and the value of the situation in which they live. In fact, a person's goals, expectations, criteria and desires have a great impact on his physical, mental, independence, social relationships and beliefs. Quality of life is one of the most important components of the overall concept of health, especially in relation to chronic patients. Therefore, the study of this phenomenon in patients with rheumatoid arthritis is very important. Psychological capital is a conceptual structure and a subset of positive psychology that is considered by researchers in relation to patients with

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rheumatoid arthritis. One of the requirements of effective interventions in improving the mental health of patients with rheumatoid arthritis is to pay attention to their psychological capital factor. Another factor that both affects the mental condition of patients with rheumatoid arthritis are personality structures such as personality traits, personality factors and personality types. Personality has long been considered as a composite structure that encompasses a set of different concepts such as attitudes, values and beliefs, feelings and behaviors (7). Personality features can be considered as one of the mediating factors in the process of changes in the mental status of patients with rheumatoid arthritis, so that in fact these are personality tendencies (basic tendencies) that interact with the individual environment (external effects) are involved in how to adapt to the disease. Although various studies have pointed out the importance of disease perception, quality of life, psychological capital and five personality factors for the mental and physical condition of patients with rheumatoid arthritis, so far in Iran these components have not been studied in patients with rheumatoid arthritis. Therefore, in the present study, we compare the perception of disease, quality of life, psychological capital and five personality factors in women with rheumatoid arthritis and normal women in Isfahan.

Method

This research which is targeted in the field of applied research, was designed and conducted by causal-comparative method. The statistical population of the present study included all women with rheumatoid arthritis in Isfahan in the spring quarter of 2016 who were referred to medical centers in Isfahan and have a medical record. According to the existing limitations, the sampling method in the present study was available sampling. Among the women with rheumatoid arthritis in Isfahan who were referred to the medical centers of Isfahan, according to the sample size proposed for comparative causal research, a sample of 30 people will be selected in a cluster random manner. The reasons for considering 30 people as the sample size was that, firstly, according to the proposal (8). For relational research, a sample of 30 people is sufficient. Secondly, according to the information obtained from medical centers, in the period of three months intended for sampling, the number of women with rheumatoid arthritis in Isfahan who go to medical centers in the city Isfahan did not exceed 200 people, which according to this volume of the population, 30 people will represent the community (Cohen, 2008). In the group of ordinary women, 30 people were selected based on Morgan table. The data collection method of the present study was as follows: 30 people who were referred to medical centers and specialized offices of rheumatoid arthritis between April 2016 and June 2016 were selected as the sample group and given short questionnaires. Disease Perception (IPQ); World Health Organization Quality of Life Questionnaire; Psychological Capital Scale (9) answered the five-factor neo-personality test (short form). In the next step, the collected data were entered into SPSS software version 22 to perform the necessary statistical analysis. The instruments used in the present study included the Short Disease Perception Questionnaire (IPQ); World Health Organization Quality of Life Questionnaire; Psychological Capital Scale Lutans et al. (2004); The five-factor personality test was neo (short form), each of which is described below:

*** Short Disease Perception Questionnaire (IPQ):**

The Disease Perception Questionnaire (IPQ) is a 9-item scale designed to assess the emotional and cognitive visualization of disease. The questions measure outcomes, duration, personal control, treatment control, nature,

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concern, cognition, emotional response, and cause of the disease, respectively.

World Health Organization Quality of Life Questionnaire:

In this study, to measure the quality of life of sample members, the quality of life questionnaire of the World Health Organization is used, which was designed by the World Health Organization (1998). The short form of this questionnaire has 26 questions and evaluates the four areas of physical health, mental health, social relations and environmental health with 24 questions (7, 6, 3 and 8 questions, respectively). In Iran, Nejat et al. (2006) have standardized this scale and obtained the alpha coefficient of the questionnaire for the healthy population in the field of physical health 0.70, mental health 0.73, social relations 0.55 and environmental communication 0.84 and reported the reliability coefficient of the retest method as 0.7 after two weeks.

*** Psychological Capital Scale Lutans et al. (2004):**

According to Lutans et al. (2004), psychological capital is a positive psychological state and a realistic and flexible approach to life, which consists of four constructs of hope, optimism, resilience and self-efficacy, and each of them as a capacity. It is considered positive psychologically. A questionnaire developed to measure psychological capital by Lutans et al. (2004) uses standardized values that are widely used for structures that measure hope, resilience, optimism, and self-efficacy, and its validity and reliability. Subscales have also been proven. The questionnaire consists of 24 questions, each subscale consists of 6 items, and the subject answers each item on a 6-point scale (strongly disagree to strongly agree) Likert.

*** Neo five-factor personality test (short form):**

This test consists of 60 items that examine the five traits of personality. This test was developed by Costa and McCreer (1972) and is scored on a five-point Likert scale from strongly disagree to strongly agree. Each factor with a factor of 12 scores was between zero and 48. The five major traits of personality are: neuroticism, extraversion, openness to experience, agreement, and conscientiousness. In this study, statistical analysis was performed by software (22 SPSS) and due to the nature of the research variables, multivariate analysis of variance (MANOVA) is used to analyze the data. Using this test, disease perception, quality of life, psychological capital and five personality factors in women with rheumatoid arthritis and normal women in Isfahan were compared. Multivariate analysis of variance was used and the effect of independent variable (rheumatoid arthritis) on dependent variables (disease perception, quality of life, psychological capital and five personality factors) was measured.

Results

Findings related to demographic information of sample members including age, education and marital status are given in Table 1. The results of independent t-test showed that there was no significant difference in age between the two groups of women with rheumatoid arthritis and normal women. Also, the results of Chi-square test showed that there is no significant difference between rheumatoid arthritis and normal women about the level of education between the two groups of women with arthritis in terms of marital status. These findings indicate a high proportion of members of the two groups in demographic indicators.

Table 2 shows the mean and deviation of research variables. Based on these results, there is a significant difference between the two groups in all variables.

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Multivariate analysis of variance was used to compare the scores of subjects in normal and sick women. The scores of each of the variables showed that there was no violation of this assumption and the data are normal (p> 0.05. The results of the box test to examine the assumption of homogeneity of the variance matrix were not statistically significant (p>0/05)) and this means to establish the above assumption, therefore, the use of multivariate analysis of variance statistical test is unobstructed.

As the results of Table 3 show, the difference between the performance of normal and sick groups in all variables except the factor of being pleasant and conscientious is significant.

Discussion

This study was performed to compare the perception of disease, quality of life, psychological capital and five personality factors in women with rheumatoid arthritis and normal women. The results of data collection showed that there is a significant difference between perception of disease, quality of life, psychological capital and five personality factors in women with rheumatoid arthritis and normal women in Isfahan confirms this research hypothesis. By examining the mean and standard deviation in these two groups of women with rheumatoid arthritis and normal women, the results show a significant difference between the two groups in terms of the variables studied. The results of analysis of variance between the two groups also showed a significant difference between the performance of the two groups in all variables except the factor of being pleasant and conscientious (P> 0.05).

These results are consistent with the results of research by Kiamarsi et al. (2020); (2) Younesi, Kafi, and Ghanbari (2015), (10). Dashgar and Teymouri (2014); (11) Faramarzi et al. (2013) (12), Farnam, Soomi, Saremi, and Farhang (2008), Tazik-Galibavik, Meljkavik, Negorni, Lazroyk, and Nikalik (2010), (13) Zarpour and Besharat (2011) (14) Philpovik et al. (2013), (15) Hall et al. (2015), (16). There are several studies that have reported an association between rheumatoid arthritis and lower levels of mental health and a higher prevalence of mental disorders. Khairjoo et al. (2012) (17) compared the health-promoting style of female patients with rheumatoid arthritis with healthy women and its relationship with demographic factors (age, duration of illness, income, and education). The results showed that healthy women had higher overall scores on health-promoting lifestyle and its subscales compared to patients with rheumatoid arthritis. In addition, it was found that there is a significant difference between components of health-promoting lifestyle (except stress management), including health responsibility, physical activity, nutrition, self-fulfillment and interpersonal support in healthy women and women with rheumatoid arthritis. The results of multiple regression analysis also showed that education alone explains 28% of the variance of health-promoting lifestyle in female patients with rheumatoid arthritis. In explaining these findings, it can be said that people with neurotic personality traits have low emotional stability. These people are very worried and anxious. People with this personality disorder are more likely to develop rheumatoid arthritis because the level of anxiety in patients with the disorder is very high. Anxiety is considered as one of the relatively stable personality traits of these patients (13).

Conclusion

According to the results of the research, it can be indicate that the perception of disease, quality of life, psychological capital and the model of five personality factors in women with rheumatoid arthritis and normal women in Isfahan have a significant relationship. Therefore, performing appropriate and timely

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psychological interventions can play an important role in prevention, treatment progress, reduction of complications and consequences and reduction of treatment costs for these patients. Since personality traits are involved in the frequency of symptoms in patients with rheumatoid arthritis, psychotherapy interventions along with medication are recommended for these patients.

Planning is essential to improve the mental health and quality of life of rheumatoid patients by teaching them constructive coping strategies, problem-solving skills, and stress management.

It seems that due to the high neuroticism personality traits of these patients, it is better for internal medicine specialists or subspecialists along with medical drugs to recommend referral to experienced psychologists for psychotherapy. This research, like other researches, faced with limitations and problems that should be considered in the application of the findings. Among these limitations can be mentioned the following: The place of this research is the city of Isfahan and may play a role in generalizing the results of cultural differences. Due to lack of time and sample size and lack of in-house criteria, the researcher can use It was not larger than the sample size, although the formulas for calculating the sample size indicate that the sample size in the research is sufficient.

References

1. Falvo, D., & Holland, B. E. (2017). Medical and psychosocial aspects of chronic illness and disability. Jones & Bartlett Learning.
2. KasperKasper D.L., Braunwald, E., Fauci, A., Hauser, S. (2005). Harrison's principles of internal medicine, disorder of immune system & connective tissue. New York: McGraw-Hill.
3. KiamarsiKiamarsi, A; Bagheri, F; Yousefi, A.; Hassanzadeh, B (2019). Comparison of coping strategies with stress and self-comp.
4. assion in women with and without rheumatoid arthritis. Journal of Psychological Development. 9 (55): 18-11.
5. .Al-Kandari, F., Vidal, V.L., & Thomas, D. (2008). Health-promoting lifestyle and body mass index among college of nursing students in Kuwait: A correlational study. Nursing and Health Sciences, 10, 43–50.
6. Akhani A IZ, Bagherian-Sararoudi R, Khorvash F.Investigating the effect of illness perception on the relationship between early maladaptive schemas and level of motor disability inmultiple sclerosis patients. J Res Behave Sci 2013; 10: 609-18.
7. SharpeSharpe, L, Curran, L. (2006). Understanding the process of adjustment to illness. Soc Sci Med. 62: 1153-66.
8. Chen, S., Bond, M. H & Cheung, F. M. (2006). Personality corelates of social axioms: are beliefs nested whin pesonality. Personality and individual differences.40.509-58.
9. Delavar A. (2010). Qualitative methodology. Strategy Magazine. Volume 19, Number 54 (Special Qualitative Research) .307-329.
10. Luthans, F., Youssef, C. M., & Avolio, B. (2004). Psychological capital: Developing the human competitive edge. New York, NY: Oxford University Press.
11. YounesiYounesi F, Kafi M, Ghanbari A. (2016). A comparative study of personality traits in patients with irritable bowel syndrome and healthy individuals. Journal of Guilan University of Medical Sciences, 25 (98): 3
12. Dashgar M, Timurid S. (2014). Relationship between personality traits and gastrointestinal inflammation. The First International Conference on Psychology and Behavioral Sciences.

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13. Faramarzi M, Kashifard M, Shokri Shirvani c. (2012). Comparison of some personality traits of patients with functional indigestion with healthy individuals. Journal of Babol University of Medical Sciences, 15 (4): 57.
14. Tosic-Golubovic S. Miljkovic S. Nagorni A. Lazarevic D. Nikolic G. 2010. Irritable bowel syndrome, anxiety, depression and personality characteristics. Psychiatrist Danube, 22 (3): 418-4.
15. Zarpour S. Besharat MA. 2011. Comparison of personality characteristics of individuals with irritable bowel syndrome and healthy individuals. Procedure - Social and Behavioral Sciences, 30: 84 - 88.
16. FiresteinFirestein, G.S. (2001). Etiology and pathogenesis of rheumatoid arthritis. In G.S, Firestein., R.C., Budd., E.D. Harris., E.B., McInnes., S, Ruddy., & J.S. Sergent. Eds, Kelley's textbook of Rheumatology (pp. 921-966). W.B. Saunders Company, Philadelphia, PA.
17. LemboLembo AJ et al. 2015. Conscientiousness is modified by genetic variation in catechol-O-methyltransferase to reduce symptom complaints in IBS patients. Brain and Behavior, 5 (1): 39-44.
18. Hall KT. Tolkin BR. Chinn GM. Kirsch I. Kelley JM. Lembo AJ et al. 2015. Conscientiousness is modified by genetic variation in catechol-O-methyltransferase to reduce symptom complaints in IBS patients. Brain and Behavior, 5(1): 39-44.
19. Khair jou . Jomheri,F . Ahadi.H, Farsh Baf. M, Sefat.F (2011). Comparison of health-promoting lifestyle in female patients with rheumatoid arthritis with healthy women and its relationship with demographic factors. Knowledge and Research in Applied Psychology: Volume 13, Number 4 (50 consecutive); From page 61 to page 70.

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Tables

Table 1: Demographic characteristics of women with rheumatoid arthritis and normal women in Isfahan

	Normal.	**Studied variable**		**Patient**		
	Number	**%**	**Frequency%**	**Number**	**%**	**Frequency%**
Age						
19-25	24	80	80	3	10	10
26-30	3	10	90	5	16.7	16.7
31-35	3	10	100	2	6.7	33.3
36-40	0	0	0	13	43.3	76.7
41-45	0	0	0	2	6.7	83.3
46-52	0	0	0	5	16.7	100
arried Status						
Single	25	83.3	83.3	6	20	2
Married	5	16.7	16.7	100	80	100
Education						
Diploma	0	0	0	10	33.3	33.3
Associate degree	21	70	70	7	23.3	56.7
BH	4	13.3	83.3	0	0	56.7
Master'degree	5	16.7	100	13	43.3	100

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Table 2: Mean and standard deviation of disease perception, quality of life, psychological capital and five personality factors in two groups of normal and sick women

Group	Variable	Number	Mean	Standard deviation
Normal	Preception of illnes	30	40.56	8.27
	Life Quality	30	76.0	14.51
	Psychological capital	30	99.0	18.50
	Psychotic	30	31.96	7.96
	Extraversion	30	35.30	5.59
	Flexibility	30	34.10	3.86
	Being Pleaseant	30	32.0	5.35
	Conscientious	30	37.76	5.22
Patient	Preception of Illness	30	62.90	6.85
	Life Quality	30	62.83	15.56
	Psychological capital	30	75.90	18.88
	Psychoti	30	35.23	5.17
	Extraversion	30	28.20	8.40
	Flexibility	30	26.56	5.30
	Being Pleaseant	30	29.53	7.44
	Conscientious	30	34.76	7.50

Table 3: Results of analysis of variance comparing disease perception, quality of life, psychological capital and five personality factors in two groups of normal and sick women

Source Of changes		Sum of Squares	Freedom degree	Mean of Squares	F	Significance	Statistical power
Group membership	Preception Of illness	7481.665	1	7481.665	1.6082	0/0001	1.100
	Quality Of life	2680.017	1	2680.017	1.8321	0/001	923%
	Psychological Capital	8120.067	1	8120.067	2.2363	0/0001	997%
	Psychotic	160.067	1	160. 067	4.148	46%	517%
	Extraversion	756.150	1	756.150	1.821	0/0001	996%
	Flexibility	851.267	1	851.267	3.4989	0/0001	1.100
	Being Pleasant	8	1	98/817	2.349	131%	326%
	Conscientious	135	1	135	3.229	78%	424%

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