

▪ **Basic Research****Effect of an Advanced Psycho-Educational Program on Mitigating Psychosocial Problems in Patients with Rheumatoid Arthritis**Wafaa Osman Abd El Fatah¹, Faten Mohammed Ahmed², Fathyeya Said Sayed Ibrahim³¹Assistant professor of Psychiatric / Mental Health Nursing, Faculty of Nursing, Helwan University, Egypt^{2&3}Assistant professors of Psychiatric / Mental Health Nursing, Faculty of Nursing, Benha University, Egypt.

Corresponding Author: Wafaa Osman Abd El-Fatah wafaa_abdulfattah@nursing.helwan.edu.eg

Abstract

Background :Rheumatoid arthritis (RA) is an unidentified cause of chronic, systemic autoimmune illness. The present study **aimed** to evaluate the outcome of an advanced psycho-educational program on mitigating psychosocial problems in patients with rheumatoid arthritis .**Methods :**A quasi-experimental, one-group pretest-posttest design was carried out in the Rheumatology Department located at Benha University Hospital, an institution affiliated with the Ministry of Higher Education in Benha City, Egypt, on 60-patient a purposive sample including RA diagnosis and Data Collection Tools were utilized: 1- Structured Interview Questionnaire – gathered personal characteristics and medical history, 2- “Depression, Anxiety, and Stress Scale (DASS-21)” – assessed psychological distress levels, 3-“Rosenberg Self-Esteem Scale (RSES)” evaluated self-esteem levels and 4- UCLA Loneliness Scale – measured perceived social isolation .**Results :**Patients' general degrees of despair, anxiety, and stress dropped noticeably once the psycho-educational program was put into use. Additionally, there was a substantial improvement in self-esteem and a reduction in perceived loneliness. These changes were a highly significant difference observed at $P < 0.001$.**Conclusion :**The findings of this study demonstrate that a structured psycho-educational program had positive and significantly improved psychosocial problems in patients with (RA). The intervention produced a notable reduction in depression, anxiety, and stress while enhancing self-esteem and reducing feelings of loneliness .**Implication of the study :**Therefore, integration of such programs into routine RA management can help reduce anxiety, depression, and stress while enhancing self-esteem and social support. Further research with larger sample sizes, extended follow-up periods, and assessments at multiple time points is warranted to validate and expand upon these findings. A holistic, patient-centered approach can enhance overall quality of life and treatment adherence for RA patients.

Keywords: Psychoeducational Program, Psychosocial problems, Rheumatoid Arthritis

Introduction

The symptoms of rheumatoid arthritis (RA), a persistent, systemic inflammatory illness with unknown origin, include stiffness, discomfort, and inflammation in the joints. It is believed that the general population has an overall prevalence of 1% for RA, with incidence rates rising with age to reach 5–7% in people over 65. Acute flare-ups and periods of mild symptoms alternate throughout the disease's variable course. Over time, RA causes joint deformity and degeneration in about two-thirds of individuals, increasing their level of impairment. With a female-to-male ratio of roughly 2.5:1, Women are far more likely than men to get the illness. (Schumacher, 2022)

Patients' everyday functioning is greatly impacted by the devastating and progressive nature of rheumatoid arthritis (RA) as well as their chronic pain. As the illness worsens, people could find it more difficult to keep a job, take care of the house, or participate in social and leisure activities. This drop in involvement frequently results in less enjoyment and less social support, which exacerbates emotional misery. (Smith & Johnson, 2024).

Rheumatoid arthritis (RA) significantly impacts patients' lives, and consequently, their mental health is often affected. Research confirms that RA can negatively impact psychological well-being. Individuals with RA are more likely to experience psychiatric disorders, In the general population, the incidence of dysthymia was roughly 41% while the prevalence of serious depressive illness was 17.5% among RA patients. These rates are like those seen in other chronic illnesses. Studies show depression and anxiety disorders affect 14-42% of RA patients. This heightened psychological distress in RA patients is influenced by factors like pain, disease severity, coping mechanisms, and social support. (Young, 2022).

Rheumatoid Arthritis affects a patient's entire life, including their physical, behavioral, psychological, and social aspects. The patient's family, particularly their spouses, is unavoidably impacted by the wide-ranging effects of impairment and anguish. RA patients' partners frequently deal with a variety of difficulties. They often take on extra duties, offer assistance and care, and may have a less active social life as a result of the patient's limitations. Observing the patient's anguish and suffering and dealing with the patient's mental health issues, such as depression, further strains the partner's well-being. (Hosseini Moghadam et al., 2020)

Educational interventions have emerged as a valuable complement to conventional medical care, aiming to empower patients suffering from Rheumatoid Arthritis (RA) in managing their health and daily lives. Research indicates that such interventions enhance patients' understanding of the disease and treatment strategies, leading to improved medication adherence. Additionally, some studies suggest that educational programs may contribute to better disease activity control, improving overall health, pain levels, joint swelling, tenderness, and physical function. However, conflicting findings indicate that the effectiveness of educational interventions in disease management remains uncertain, with potential variations in short- and long-term outcomes. (Galo et al., 2022).

So, Patient education may be useful in improving clinical results and psychosocial status in people with rheumatoid arthritis

Significance of Study

More pain, functional disability, higher disease activity, younger age, lower socioeconomic status, certain psychological traits, and a lack of social support are risk factors for the

development of stress. RA patients also tend to experience more interpersonal and work-related stressors than the general population. (Cock et al. 2022).

A psycho-educational program has been proven to be a useful tool for improving patients' coping mechanisms, emotional well-being, and social connections. According to **Zhang et al. (2022)**, who structured educational interventions significantly enhance patients' ability to self-manage their conditions, leading to reductions in psychological distress and improvements in self-efficacy. Similarly, **Sharpe et al. (2019)** found that group-based psycho-educational programs foster emotional support and community reduce feelings of isolation and promote mental resilience.

The researchers view this study as holding significant importance as it addresses the psychosocial challenges faced by people with rheumatoid arthritis (RA) and evaluates the outcomes of a psycho-educational program on mitigating these issues. Living with RA involves not only managing physical symptoms, such as chronic pain, joint deformities, and limited mobility but also navigating a complex web of emotional and social difficulties. These often manifest as depression, anxiety, stress, loneliness, and diminished self-esteem, which severely impact the overall quality of life.

Aim of the study:

This research aimed to evaluate the effect of an advanced psycho-educational program on mitigating psychosocial problems in patients with rheumatoid arthritis. This was accomplished through the following objectives:

- Assess the levels of psychosocial problems in patients with rheumatoid arthritis (pre & post an advanced psycho-educational program intervention)
- Design and implement an advanced psycho-educational program focused on mitigating psychosocial problems in patients with rheumatoid arthritis
- Evaluate the effect of an advanced psychoeducational program on addressing the manifestations and reducing problems among patients with rheumatoid arthritis (post-intervention)

Research hypothesis

The application of a Psychoeducational program would have a positive, beneficial impact on the psychosocial challenges experienced by individuals diagnosed with Rheumatoid Arthritis, to reduce anxiety, depression, and stress while promoting their self-esteem

Working definitions:

- **Psychological problems** in this study include symptoms of depression, anxiety, stress, and low self-esteem among Patients with Rheumatoid Arthritis
- **Social problems** in this study were limited to symptoms of social isolation or feelings of loneliness among People with Rheumatoid Arthritis.

Methods and Subject

Research design:

A quasi-experimental design was used, with just one group receiving the pre/post program. One benefit of this research design is that it is directionally focused, which means that an independent variable is used to assess a dependent variable before and after the program intervention.

Study setting:

The research was conducted in Benha City, Qalyubia Governorate, in the rheumatology department of Benha University Hospital, which is connected to the Ministry of Higher Education. The department has three rooms. Rheumatoid arthritis, systemic lupus erythematosus, osteoporosis, and scleroderma are the most often diagnosed conditions within this category.

The following criteria were used to enroll 60 rheumatoid arthritis patients as a purposive sample from the previously described settings:

Inclusion criteria:

- *Age range: 25 - 65 years old.
- *Both gender (male & female).
- * The capacity to attend meetings and reply to questions.
- * Reading and writing proficiency as well as a willingness to take part in the study.

Criteria for exclusion:

- *Patients with neurological or psychiatric disorders.
- *Patients with brain disorders (such as Alzheimer's disease, stroke, or transient ischemic attack).

Tools for Gathering Data: The following tools were used to collect data:

Tool (one): Semi-structured Interview Questionnaire. Established by the researchers using relevant literature to gather data on patients' medical clinical information, including the onset of the disease, family history of rheumatoid arthritis, prior hospitalization, severity of the disease, and rheumatoid arthritis complications, as well as socio-demographic characteristics, such as age, sex, educational attainment, marital status, occupation, monthly income, and family type.

Tool (2): Depression, Anxiety and Stress Scale- twenty-one Items (DASS-21) (Lovibond and Lovibond, 1995)

This scale was developed by **Lovibond and Lovibond (1995)** and consists of three subscales: Stress, anxiety, and depression. Seven elements total, broken down into subscales with related topics, make up each of the three DASS-21 scales.

Total Scoring System for Depression, Anxiety, and Stress Scale (DASS-21):

Level	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely severe	28& more	20or more	34or more

Tool 3: Rosenberg Self-Esteem Scale:

The 10-item measure, which was created by Rosenberg (**Rosenberg, 1965**), measures both positive and negative self-perceptions. It is thought that this scale is unidimensional. A 4-point Likert scale, with 3 representing strongly agree and 0 representing strongly disagree, was used to answer all of the questions.

Scoring system for the Rosenberg Self-Esteem Scale

The following is the assignment for each response:

- Positively Worded Statements (Higher score indicates higher self-esteem)

- Statements: 1, 3, 4, 7, 10 Scoring: Strongly Agree = three, Agree = two, Disagree = one & Strongly Disagree = zero
- Negative Wording in Statements (Higher score indicates lower self-esteem)
- Statements: 2, 5, 6, 8, 9 Scoring: Strongly Agree = zero, Agree = one, Disagree = two & Strongly Disagree = three

Calculating the Total Score

- Sum scores for all 10 statements. Score Range: 0 – 30

Low self-esteem	0 – 14
Moderate self-esteem	15 – 24
High self-esteem	25 – 30

Tool 4: UCLA Loneliness Scale (Russell et al., 1978):

The scale was developed by Russell et al., (1978). The scale contains 20 items which is used to assess both subjective and objective emotions of social isolation and loneliness

- O means that I often feel this way. (Total Loneliness)
- S means that I sometimes feel this way. (High Loneliness)
- R means that I rarely feel this way. (Moderate Loneliness)
- N means that I never feel this way. (Low Loneliness)

Scoring System for UCLA Loneliness Scale

Each statement is rated on a **four-point scale**: Never = one point, Rarely = two points, Sometimes = three points & Often = four points

Total Score Calculation

- Sum scores for all **20 items** (if using the full scale). **Score Range: 20 – 80**

Low loneliness	20 – 34
Moderate loneliness	35 – 49
High loneliness	50 – 80

Content validity and reliability among tools

To achieve the criteria of validity and reliability of the data collection measurements in the study, the tools were translated into Arabic by a certified translation office, retranslated into English and then compared to the original version to validate that the translation (the Arabic version) had the same meaning as the original version by (5) of mental health nursing professors.

Cronbach's alpha reliability analysis was used to verify the instruments' dependability.

T tools	I tems	Cronbach Alpha
Depression Anxiety Stress Scales (DASS)	21	0.837
Self-esteem scale	10	0.851
Feeling of loneliness	20	0.862

Procedures:

Administrative approval

The Benha University Hospital's director in Benha City received formal letters from the Faculty of Nursing outlining the purpose of the study and asking for their consent to collect data and include patients in the research process.

Ethical considerations

The Faculty of Nursing's Scientific Research Ethical Committee provided ethical approval before the study of conducted. Helwan University. No (43) on 7/10/2024. Before beginning the study, the researchers defined the objectives and goals for each patient involved, emphasizing that all data collected were confidential and would only be used for scientific purposes. Before participating in study, the patients provided informed consent. The subjects were told that they might opt out of the study at any time and that they could choose not to participate. Moreover, they experienced no adverse effects from the trial.

Pilot study:

Before fieldwork, a pilot study was carried out to design and test the tools to assess their viability and clarity and to gauge how long they would take to complete. Ten percent (6) of the patients who were subsequently enrolled in the main study sample participated in this pilot study. Its goals were to evaluate the tools' content validity, clarity, applicability, and relevance; calculate how long it would take to finish the sheet and make any necessary adjustments.

Pilot study results

Following the pilot study, the following conclusions were reached:

- The tools were applicable and straightforward, although a few sentences in each scale were reworded to make them simpler to grasp.
- The instruments were legitimate and pertinent.
- No issues were found that would impede the data collection procedure.
- After this pilot research, the instruments were prepared for usage.

Designing phase:

By establishing objectives, arranging the learning material, and designing methods and media, this phase sought to create an advanced psycho-educational program.

Development of an advanced psycho-educational program for patients:

Researchers developed the psycho-educational program by conducting a pilot study& reviewing relevant literature. The program was designed to assess its impact on psychosocial issues among patients with Rheumatoid Arthritis. The psycho-educational program consisted of eight sessions (theoretical and practical sessions), which were designed based on findings from the assessment tools and a comprehensive review of the literature. The study was conducted over three months, from early October 2024 to the end of December 2024. Data collection takes place twice a week in the morning, specifically from ten AM to twelve PM. The participants, all diagnosed with Rheumatoid Arthritis, They were divided up into six groups, with ten patients in each category. Three separate stages were followed in the study's implementation: pre-assessment, implementation, and evaluation.

Pre-assessment Phase:

The interviewees were given a comfortable, confidential area. Orientation was done about the researchers' name, purpose, significance, and content of the study. Subjects were interviewed and pre-assessment was done using (I): Structured Interview Questionnaire (II): Depression, Anxiety, and Stress Scale. (III): Rosenberg Self-Esteem Scale (IV): UCLA Loneliness Scale. This program had a broad goal and was broken up into sessions, each of which had a distinct goal. Several instructional strategies, including brainstorming, lectures, discussions, and giving examples, were used to accomplish this. Media included role-playing, data shows, films, and

images. Each session concluded with a summary, comments, and additional explanations for any unclear points. For eight sessions, the patients were enrolled. Every week, there were two-morning sessions. Theory takes 30 to 40 minutes per session, and practice takes 45 to 60 minutes per day.

Implementation phase

- The studied group received regular medical care as well as a program that included talks and training materials on coping mechanisms for stress and anxiety, with a focus on healthy living, depression coping mechanisms, pain management, coping mechanisms, problem-solving techniques, and muscle relaxation.
- Group session guidelines were established at the first meeting. All information discussed in the group should be kept completely private and should not be shared with anybody outside the group. It was stressed how important it is to participate and treat one another with respect.
- The frequently employed progressive muscle relaxation techniques were concluded with relaxation exercises. The participants received instruction in relaxing techniques. During one of the activities, the patient was invited to share with the group an event that had made them angry. We identified and talked about the patient's hostile and stressed reactions. The participants' anxious and irate reactions were changed via behavioral techniques.
- In a different experiment, behavioral tactics and other problem-solving skills were applied to scenarios that were characterized as dangerous. Together with the patient in question, the group observed, discussed, and reformulated the actual situation; the other participants actively offered solutions. The patient who had brought up the issue assessed and appraised these.

The following topics were covered in the sessions of the intervention program:

The researcher created the program content in the form of a booklet, which was given to patients during the first session, based on the findings from the evaluation instruments and literature review. Psycho-educational sessions were centered on:

The first session: introduces the participants to one another, explains the procedure's goals, and pays attention to their concerns and emotions.

The second session: Depending on understanding the nature of rheumatoid arthritis, training in a variety of preventive methods, treatments, and disease complications and consequences.

The third session: Instruction on stress and anxiety management techniques with a focus on lifestyle

The fourth session: Education in depression management techniques.

The fifth session: instruction on coping mechanisms and problem-solving techniques.

The sixth session: Training in pain management techniques.

The seventh session: Relaxation training

The eighth session: Conclusion and summary, going over the training materials, and getting patient input

Evaluation phase: An evaluation was done using Structured Interview Questionnaire, Depression, Anxiety and Stress Scale, Rosenberg Self-Esteem Scale, and UCLA Loneliness Scale to evaluate the effect of an advanced psycho educational program on psychosocial problems among Patients with Rheumatoid Arthritis.

Statistical analysis:

The acquired data were processed, tabulated, and statistically analyzed using Statistical Package for Social Science (SPSS) version 20 for Windows, which ran on an IBM-compatible computer. Descriptive statistics were used (e.g., frequency, percentages, mean, and SD). The quantitative variables were compared using the paired t-test, with independent samples. The T test (t) was used to compare means of two categories, while the One-Way ANOVA Test is used for more than two categories. The correlation coefficient test (r) was employed to determine the relationship between the variables under study. Cronbach's Alpha was used to determine the reliability of the study tools. A significant level value was defined as $p < 0.05$, and a highly significant level value as $p < 0.001$. There was no statistically significant change when $p \geq 0.05$.

Results

Table (1) illustrates that 36.7% of the studied patients aged between 35-<45 years old “had a mean \pm SD 43.66 ± 6.86 ” years and 65% were female. and (65%) were female Also, 50.0% had secondary education. Regarding marital status, 63.3% were married, 90.0% were working. Moreover, the majority (86.7%) of their monthly income was enough, and (65.0%) had nuclear-type families.

Table (2) shows that 60.0% of the patients studied suffer from a disease for 5 to 10 years. 20.0% had a family history of rheumatoid arthritis, and 66.6% were first-degree relatives. Also, 13.3% had a previous hospital admission and 62.5% had a hospitalization one-time. Furthermore, 60.0% of them have a moderate level of disease. and 50.0% of them reported an Unstable psychological status.

Table (3) clarified a marked decrease in patients' total depression, after implementation of a psychoeducational program with a highly statistically significant difference at ($P = < 0.001$). In addition, 50.0 % of studied patients had severe levels of depression pre-program intervention. but 53.3% of them had a mild level of depression after the program applied.

Table (4) highlights patients' total anxiety levels before and after the psychoeducational program intervention. A significant reduction in total anxiety was observed following the program's implementation, with a highly significant difference ($P < 0.001$). Notably, before the program, 73.4% of the participants experienced extremely severe anxiety, whereas post-implementation, 56.7% of them reported a moderate level of anxiety.

Table (5) presents patients' total stress levels before and after the implementation of the psychoeducational program. The findings indicate a significant reduction in stress levels post-program, with a highly statistically significant difference ($P < 0.001$). Specifically, 56.7% of the participants experienced severe stress before the program, whereas the same percentage reported only mild stress after its implementation.

Table (6) illustrates the patients' total self-esteem levels before and after the application of the psychoeducational program. The results show a significant improvement in self-esteem post-program, with a highly statistically significant difference ($P < 0.001$). Notably, 60.0% of the participants had a moderate level of self-esteem before the program, whereas 50.0% achieved a high level of self-esteem after its execution.

Table (7) The table presents the patients' total feelings of loneliness before and after the application of the psychoeducational program. The findings indicate a significant improvement in loneliness levels post-program, with a highly statistically significant difference ($P < 0.001$). Specifically, 46.7% of the participants experienced a high level of loneliness before the program, whereas 73.3% reported a low level of loneliness after its execution.

Table (8) revealed a highly significant statistically negative correlation between patients' depression, anxiety, stress, loneliness, and their self-esteem before & after psycho-educational program intervention at $p < 0.01$. While a significant statistically positive correlation between patients' depression, anxiety, stress, and loneliness pre and post-implementation of the psycho-educational program at $p < 0.01$.

Table (1): Number & percentage of the studied patients regarding their socio-demographic data (n=60).

Socio-demographic data		No	%
Age			
25 < 35 Years		16	26.7
35 < 45 Years		22	36.7
45 < 55 Years		14	23.3
55 ≤ 65Years		8	13.3
43.66 ± 6.86	Mean ±SD		
Gender			
Male		21	35.0
Female		39	65.0
Education Level			
Don't read & write		16	26.7
Read and write		12	20.0
Secondary education level		30	50.0
High education level		2	3.3
Marital status			
Single		4	6.7
Married		38	63.3
Divorced		2	3.3
Widowed		16	26.7
Occupation			
Work		54	90.0
Don't work		6	10.0
Monthly income			
Enough		52	86.7
Not enough		8	13.3
Type of family			
Nuclear		39	65.0
Extended		21	35.0

Table (2): number& percentage of the studied patients regarding their medical history (n=60)

Items	No.	%
Onset of the disease		
Less than 5 years	16	26.7
From 5 to 10 years	36	60.0
More than 10 years	8	13.3
Family history of rheumatoid arthritis		
Yes	12	20.0
No	48	80.0
If the answer is yes, what is the kinship? (n=12)		
First degree relatives	8	66.7
Second-degree relatives	4	33.3
Previous hospital admission		
Yes	8	13.3
No	52	86.7
If the answer is yes, what is the frequency of hospitalization? (8)		
Once	5	62.5
Twice	2	25.0
Three and more	1	12.5
Severity of disease		
Mild	16	26.7
Moderate	36	60.0
Sever	8	13.3
*Complication of rheumatoid arthritis		
Movement difficulties	12	20.0
Joint deformities	2	3.3
Sleep disorder	4	6.7
Unable to practice daily activities	16	26.7
Unstable psychological status	30	50.0

(*) select more answers

Table (3): Distribution of depression total levels among the studied patients pre- & post-program implementation (n=60).

Levels of Depression	Pre-program		Post-program		X ²	p-value
	No.	%	No.	%		
Normal	0	0.0	4	6.7	26.35	0.000**
Mild	2	3.3	32	53.3		
Moderate	12	20.0	16	26.7		
Sever	30	50.0	8	13.3		
Extremely severe	16	26.7	0	0.0		

Table (4): distribution of Anxiety total levels among the studied patients' pre & post-program implementation (n=60).

Levels of Anxiety	Pre-program		Post program		X ²	p-value
	No.	%	No.	%		
Normal	0	0.0	4	6.7	36.38	0.000**
Mild	0	0.0	6	10.0		
Moderate	8	13.3	34	56.7		
Sever	8	13.3	16	26.6		
Extremely severe	44	73.4	0	0.0		

Table (5): distribution of Stress total levels among the studied patients pre- & program implementation (n=60).

Levels of Stress	Pre-program		Post-program		X ²	p-value
	No.	%	No.	%		
Normal	2	3.3	20	33.3	26.37	0.001**
Mild	4	6.7	34	56.7		
Moderate	20	33.3	6	10.0		
Sever	34	56.7	0	0.0		

Table (6): distribution of total self-esteem levels among the studied patients pre- & post-program implementation (n=60).

Levels of Self-esteem	Pre-program		Post-program		X ²	p-value
	No.	%	No.	%		
High	4	6.7	30	50.0	24.85	0.000**
Moderate	36	60.0	26	43.3		
Low	20	33.3	4	6.7		
Mean \pm SD	12.43 \pm 4.19		18.96 \pm 2.35		t=9.332	0.000**

Table (7): distribution of feelings of loneliness total levels among the studied patients pre- & post-program implementation (n=60).

Levels of feelings of loneliness	Pre-program		Post program		X ²	p-value
	No.	%	No.	%		
High	28	46.7	4	6.7	17.35	0.000**
Moderate	18	30.0	12	20.0		
Low	14	23.3	44	73.3		
Mean \pm SD	42.23 \pm 14.5		23.43 \pm 11.6		t=12.93	0.000**

Table (8): Correlation between patients' overall levels of depression, anxiety, stress, self-esteem, and loneliness before and after the program intervention (n=60).

Variables		Total depression		Total anxiety		Total stress		Total self-esteem	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post
Total anxiety	r ² p	0.907 0.000* *	0.937 0.000* *						
Total stress	r ² p	0.954 0.000* *	0.985 0.000* *	0.867 0.000* *	0.927 0.000* *				
Total self-esteem	r ² p	-0.498 0.005* *	-0.704 0.000* *	-0.378 0.007* *	-0.708 0.000* *	-0.643 0.000* *	-0.715 0.000* *		
Total loneliness	r ² p	0.787 0.000* *	0.717 0.000* *	0.709 0.000* *	0.673 0.000* *	0.791 0.000* *	0.708 0.000* *	-0.566 0.001* *	-0.574 0.000* *

Discussion:

Living with rheumatoid arthritis (RA) involves more than just physical pain; it is a continuous journey filled with emotional, psychological, and social hurdles. Loneliness, worry, and mental tiredness might result from ongoing discomfort, unplanned flare-ups, and limitations on day-to-day activities. Beyond the outward signs, the patient experiences a more profound struggle, a decline in self-worth, a growing sense of loneliness, and mounting stress that progressively impacts them beyond the illness. Psych educational programs are vital because they give patients the knowledge, coping skills, and emotional support they need. These programs help individuals have confidence and value enhancing their understanding and management of their condition.

The current study's findings show that RA is more common in middle-aged people and that women are disproportionately affected, often experiencing worse psychosocial outcomes compared to men due to hormonal and social factors. The majority of the participants ages 35 and 45, had a Mean±SD 43.66 ± 6.86 years, and the researchers believe this could be because the disease is more common in this age group (Uhlir & Kvien, 2014).

According to the current study's findings, over 60% of them were married. Most of them were also at work. Researchers believe this could be because more study participants are married and have greater responsibilities. Additionally, the majority of them had nuclear families and an adequate monthly income (65%). This may have to do with the fact that working hard, being financially stable, and having a job can provide people a sense of security, which may lessen the psychological effects of rheumatoid arthritis. People who lead more stable lifestyles might be more mentally resilient, which could account for the improvements that have occurred after the program. Cohen et al. (2019) observed that the majority of the samples examined were consistent with this outcome. This finding aligns with Cohen et al., (2019), who reported that most of the samples in the study are married and employed.

The current study finding explained that The majority of patients had rheumatoid arthritis for 5-10 years, disease severity was moderate for most patients, with complications including

movement difficulties and unstable psychological status, and this may be due to chronic diseases like rheumatoid arthritis often lead to cumulative psychological and social strain. The longer someone has lived with the condition, the more likely they are to experience psychological and social distress. Similarly, **Matcham et al. (2014)** found that depression rates among RA patients rise considerably as the disease advances, highlighting an increasing mental health burden over time. These outcomes are not surprising, as **Covic et al. (2012)** highlight that persistent pain and increasing disability often amplify emotional distress. Moreover, **Katz et al. (2016)** underscore that chronic exposure to disease symptoms can take a heavy toll on emotional well-being

The findings of the current study showed a significant reduction in depression levels among rheumatoid arthritis (RA) patients after participating in the Psychoeducational program, With highly significant statistical differences. pre the intervention, 50% of participants exhibited severe depression, post-program, these figures dropped dramatically, "This marked improvement aligns with previous findings indicating the effectiveness of Psychoeducational interventions in addressing the emotional burden of chronic illnesses like RA. **Matcham et al. (2014)** demonstrated that cognitive-behavioral and Psychoeducational approaches are among the most effective in reducing depression symptoms in RA patients. By fostering self-management skills and coping strategies, these programs help patients regain a sense of control, reducing feelings of helplessness commonly associated with chronic conditions.

Similarly, **Hewlett et al. (2005)** emphasized "the role of educational interventions in enhancing patients' psychological well-being by demystifying the disease process and offering practical tools for symptom management". The significant shift toward mild or normal levels of depression post-program These findings correspond with those of **Katz et al., (2016)**, who reported that patient education helps reduce psychological distress by fostering self-efficacy and confidence in managing disease symptoms.

Moreover, an advanced Psychoeducational program in the present study likely offered participants a supportive environment where they could share their experiences and receive validation, which is crucial for reducing feelings of isolation and depression. This social aspect of the intervention echoes findings by **Covic et al., (2012)**, who highlighted the importance of peer support in improving mental health outcomes in chronic illness populations."

The findings of the current study indicate a notable reduction in anxiety levels among individuals with rheumatoid arthritis (RA) patients following the Psychoeducational program resulting in a highly significant statistical difference. Before the intervention, an alarming majority of participants exhibited extremely severe anxiety, Post-program, these figures dramatically shifted, with no patients reporting extremely severe anxiety These findings align with previous research emphasizing the effectiveness of Psychoeducational interventions in reducing anxiety among individuals with chronic diseases The program likely empowered participants by providing them with practical skills to manage stressors associated with their condition, including pain management techniques and cognitive reframing exercises to challenge anxious thoughts. **Matcham et al., (2016)** reported that anxiety is a common psychological burden for RA patients, often exacerbated by the unpredictable nature of the disease and the fear of physical decline. Psychoeducational programs, by promoting disease knowledge and offering coping strategies, help alleviate these concerns and foster a sense of control, ultimately reducing anxiety. Additionally, the significant decline in anxiety post-program supports the results of **Covic et al., (2012)**, By emphasizing the role of patient education in alleviating emotional distress among individuals with chronic illnesses.

The social and interactive aspects of the Psychoeducational sessions also played a vital role. **Sharpe et al., (2019)** emphasized that group-based Psychoeducational interventions offer patients the chance to share experiences and receive emotional validation, reducing feelings of isolation and fostering resilience. This aligns with the current study's findings, as participants may have felt less alone in their struggles after connecting with others facing similar challenges.

Moreover, the transition from severe to moderate anxiety for many participants highlights the gradual but meaningful impact of educational and cognitive interventions. **Lutgendorf et al. (2020)** pointed out that Psychoeducational interventions help patients reframe their experiences, reducing the perception of RA as a catastrophic condition and fostering adaptive coping mechanisms.

In conclusion, the findings of this section of the study highlight the crucial role of Psychoeducational programs in reducing anxiety for RA patients. By addressing psychological, social, and educational patients' needs, these programs offer a holistic approach to fostering mental well-being and resilience. " Also, The findings of the current study demonstrate a substantial decrease in stress levels among rheumatoid arthritis (RA) patients following the Psychoeducational program. Before the intervention, more than 50% of participants reported severe stress. Post-program, none of the participants remained in the severe category from the post-program view, this may be due to educational interventions that promote coping strategies and self-management skills, which can help patients reframe their perception of stress and reduce its intensity. Furthermore, advanced psychoeducational programs reduce stress by fostering a sense of control and agency

This finding is consistent with **Covic et al., (2012)**, who mentioned that participants who learned cognitive and behavioral strategies to manage both the physical and emotional aspects of RA reported significant improvements in psychological well-being. The practical tools provided in such programs, including relaxation exercises and stress management techniques, likely contributed to the significant reduction in stress levels observed in the current study.

The social and interactive components of the program also played a crucial role. Group-based sessions allowed participants to share experiences and receive emotional support, which has been shown to alleviate stress. **Sharpe et al., (2019)** emphasized that peer support in Psychoeducational environments fosters a sense of community and helps alleviate feelings of isolation, which are common among RA patients. In addition, reducing chronic stress has implications for physical health outcomes in RA patients. **Lutgendorf et al., (2020)**, As stated, extended periods of stress can amplify inflammatory responses and enhance pain sensitivity. Lowering stress levels not only offers psychological relief but also contributes to physical well-being, making advanced psychoeducation a well-rounded and holistic approach.

Ultimately, the findings from this section of the research highlight the transforming power of sophisticated psycho-educational programs in reducing stress for RA sufferers. These treatments help individuals with the emotional and physical weight of chronic illness by arming them with knowledge, coping mechanisms, and social support. "The present study result highlights a significant improvement in self-esteem among rheumatoid arthritis (RA) patients following the Psychoeducational program led to a highly significant statistical difference. From the perspective of the researchers, this may be due to advanced psychoeducational programs, empowering patients with disease management strategies and fostering a sense of competence,

helping rebuild confidence and self-efficacy. By equipping participants with knowledge about RA and practical coping mechanisms, the Psychoeducational program may have reinforced participants' sense of control over their condition, leading to improved self-esteem.

The educational and cognitive components of the program likely played a crucial role in these improvements. **Bandura (1997)** Suggested that self-efficacy, or confidence in one's capacity to handle challenges, is a critical determinant of self-esteem. Furthermore, the social aspects of the intervention likely contributed significantly. **Sharpe et al. (2019)** found that group-based Psychoeducational programs create environments where participants feel validated and supported, which can foster greater self-acceptance and positive self-regard. Engaging with peers who face similar challenges helps patients recognize their strengths and capacities, reducing self-stigma and promoting a healthier self-image. The psychological benefits observed in this study may also have physical health implications. **Lutgendorf et al. (2020)** noted that improvements in self-esteem and self-efficacy is commonly linked to greater adherence to treatment plans and enhanced overall health outcomes in individuals with chronic illnesses.

Furthermore, the current study result illustrates a Notable decrease in loneliness among rheumatoid arthritis (RA) patients following the Psychoeducational program, with a highly significant difference this may be due to the patients with RA often facing social isolation due to physical limitations, fatigue, and pain, which restricts their ability to maintain relationships and participate in social activities. This isolation frequently contributes to heightened feelings of loneliness and psychological distress. The significant reduction in loneliness post-program can be attributed to the social support and validation provided during the Psychoeducational sessions. By sharing experiences and supporting one another, participants often develop meaningful social connections that mitigate loneliness.

Additionally, Psychoeducational programs may help patients reframe negative thoughts and perceptions about their social worth and ability to connect with others. **Lutgendorf et al. (2020)** noted that such interventions often promote positive cognitive restructuring, helping patients shift from self-stigmatizing thoughts to more adaptive beliefs, which can improve their social interactions. The observed improvements also align with findings from **Cacioppo & Hawkey (2020)**, who demonstrated that “interventions targeting social skills, emotional validation, and cognitive reframing are effective in reducing chronic loneliness”. The ability to regain confidence in social settings and feel emotionally connected is a critical factor in reducing loneliness among chronic illness populations.

Finally, the result of the present study emphasizes the connections between “depression, anxiety, stress, self-esteem, and loneliness” among rheumatoid arthritis (RA) patients, revealing statistically significant correlations pre & post the advanced psychoeducational intervention, there were strong positive correlations between depression, anxiety, stress, and loneliness pre- and post-program, while these negative emotional states were inversely correlated with self-esteem. The findings underscore the interconnected nature of psychosocial factors in chronic illness populations. From the researchers' standpoint, depression & anxiety often co-occur in RA patients, exacerbating stress levels and contributing to feelings of isolation. The mutually reinforcing relationships among these negative emotions highlight the importance of holistic interventions that address multiple dimensions of psychosocial health simultaneously. The Psychoeducational program in this study likely contributed to these improvements by fostering a sense of competence and empowerment among participants, which in turn reduced psychological distress.

The significant inverse correlations between self-esteem and negative psychological states, including depression, stress, and loneliness, are particularly noteworthy. **Bandura (1997)** highlighted that people with greater self-efficacy and self-esteem are more inclined to adopt positive coping strategies and maintain emotional resilience in the face of chronic stressors. Furthermore, the reduction in loneliness observed post-program likely played a role in mitigating depression and anxiety. **Cacioppo & Hawkley, (2020)** demonstrated that loneliness is not just a consequence of mental health issues but a driving factor that exacerbates them. By promoting social connectedness and emotional validation through group-based interactions, the program may have broken the cycle of isolation and psychological distress. The strong positive correlation between stress and other negative emotional states is consistent with findings from **Zhang et al., (2022)** who noted that prolonged psychological stress in RA patients amplifies both emotional and physical symptoms. The significant stress reduction observed in this study likely contributed to broader improvements in patients' mental health outcomes.

Conclusion: Drawing from the findings of the present study,

An advanced Psychoeducational Program significantly benefits patients with rheumatoid arthritis by addressing their psychosocial challenges. By providing knowledge, coping strategies, and emotional support, the advanced psychoeducational program helps mitigate stress, enhance mental well-being, and improve overall quality of life.

Recommendations: In light of the study's findings, the following recommendations are suggested:

- 1- Apply a psychoeducational program for all patients with Rheumatoid Arthritis.
- 2- Related interventions should be integrated into standard rheumatoid care plans and included in nursing curricula.
- 3- Enhance awareness levels of patients and healthcare providers about the importance of addressing psychosocial aspects alongside physical treatment.
- 4- Additional research with larger sample sizes and follow-up periods to evaluate the long-term effects of psychoeducational programs on the well-being of RA patients.

References:

1. **Bandura, A. (1997).** *Self-efficacy: The exercise of control.* W.H. Freeman and Company.
2. **Cacioppo, J. T., & Hawkley, L. C. (2020).** Perceived social isolation and its effects on health and well-being. *Current Directions in Psychological Science*, 19(2), 109-113.
3. **Cohen, J. et al., (2019).** The effectiveness of Psychoeducational interventions on quality of life, depression, and anxiety in patients with rheumatoid arthritis: A systematic review and meta-analysis.
4. **Covic, T., et al. (2012).** "Psychological status in rheumatoid arthritis: A longitudinal study." *Rheumatology International*, 32(4), 1191-1196.
5. **Galo, J, Mahat P, Rai S, Avina-Zubieta A, Vera M. (2022).** What are the effects of medication adherence interventions in rheumatic diseases: a systematic review. *Ann Rheum Dis.* 75:667–73. 10.1136/annrheumdis-2014-206593 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
6. **Hewlett, S., et al. (2005).** Psychological impact of rheumatoid arthritis on patients' lives. *Rheumatology*, 44(10), 1294-1302.
7. **Hosseini, A. Moghadam, M. Jahanbin, I. Nazarinia M (2020).** The effect of educational program on self-efficacy of women with rheumatoid arthritis: a randomized controlled clinical trial. *Int J Community Based Nurs Midwifery.* 6:12–20. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
7. **Katz, P., et al. (2016).** "The impact of chronic conditions on quality of life and mental health: The case of rheumatoid arthritis." *Arthritis Care & Research*, 68(2), 167-172.

8. **Lutgendorf, S. K., et al. (2020).** Mind-body interventions in the management of anxiety in rheumatoid arthritis: A systematic review. *Clinical Psychology Review*, 77, 101837.
9. **Lovibond, S., and Lovibond, P. (1995).** Manual for the Depression Anxiety & Stress Scales. (2nd Ed.) Sydney: Psychology Foundation
10. **Matcham, F., et al. (2014).** "The prevalence of depression in rheumatoid arthritis: A systematic review and meta-analysis." *Rheumatology*, 53(12), 2136-2148.
11. **Rosenberg, M. (1965).** Society and adolescent self-image. Princeton, NJ: *Princeton University Press*.
12. **Russell, D., Peplau, L., and Ferguson, M. (1978).** Developing a measure of loneliness. *Journal of Personality Assessment*, 42, 290-294.
13. **Schumacher, J (2022).** Rheumatoid arthritis: review of psychological factors related to etiology, effects and treatment. *Psychological Bulletin*
14. **Sharpe, L., et al. (2019).** Group-based psychoeducational for anxiety in chronic illness patients: A meta-analysis. *Health Psychology Review*, 13(3), 245-263.
15. **Uhlig, T., & Kvien, T. K. (2014).** "Epidemiological perspectives on rheumatoid arthritis: A review." *Rheumatology International*, 34(5), 617-632.
16. **Young, F (2022).** Psychiatric status of patients with primary fibromyalgia, patients with rheumatoid arthritis and subjects without pain: a blind comparison of DSM-III diagnoses *American Journal of Psychiatry*
17. **Zhang, Y., et al. (2022).** The Effects of Patient Education on Psychological Status and Clinical Outcomes in Rheumatoid Arthritis: A Systematic Review and Meta-Analysis. *Frontiers in Psychology*, 13, 8968629.
18. **Smith, J., & Johnson, R. (2024).** The impact of rheumatoid arthritis on quality of life and social well-being. *Journal of Rheumatology Studies*, 42(3), 215-230.
19. **Cock, D., Doumen, M., Vervloesem, C., Delphine, B., Pazmino, S., Westhovens, R., Verschueren, P., (2024).** Psychological stress in rheumatoid arthritis: a systematic scoping review, Available online 21 April 2022, Version of Record 27 April 2022. <https://doi.org/10.1016/j.semarthrit.2022.152014> , *Seminars in Arthritis and Rheumatism*, Volume 55, August 2022, 15

الملخص العربي

تأثير برنامج تعليمي نفسي متقدم على التخفيف من المشكلات النفسية والاجتماعية لدى مرضى التهاب المفاصل الروماتويدي

مقدمه: التهاب المفاصل الروماتويدي هو اضطراب مزمن وجهازي ومناعي ذاتي لا يُعرف سببه، ويتميز بتورم مؤلم وصرامة في المفاصل

الهدف: صممت هذه الدراسة لتقييم تأثير البرنامج التعليمي النفسي على المشكلات النفسية والاجتماعية لدى مرضى التهاب المفاصل الروماتويدي.

التصميم: تم استخدام تصميم شبه تجريبي (تصميم اختبار قبلي وبعدي لمجموعة واحدة) لتحقيق هدف الدراسة. **مكان الدراسة:** تم إجراء هذا البحث في قسم الروماتيزم بمستشفى بنها الجامعي العينة: تم اختيار عينة غرضية من 60 مريض مصاب بالتهاب المفاصل الروماتويدي من المكان المذكور أعلاه. **أدوات البحث:** وتم استخدام أربعة أدوات لجمع البيانات. أولاً: استبيان مقابلة منظم لتقييم الخصائص الاكلينيكية والديموغرافية الاجتماعية. ثانياً: مقياس القلق والاكتئاب والتوتر. ثالثاً: مقياس تقدير الذات. رابعاً: مقياس الشعور بالوحدة. **النتائج:** يوجد انخفاض كبير بدرجة كبيرة في مستوى القلق والاكتئاب والتوتر بعد البرنامج مقارنة بما قبل البرنامج.

الخلاصة والتوصيات: لم يعد هناك شك الآن في أن التدخل النفسي لإدارة الألم لدى المرضى الذين يعانون من التهاب المفاصل الروماتويدي فعال، وبالتالي يمكن اعتباره قائماً على الأدلة. لذلك هناك الحاجة إلى استهداف التدخلات ليس فقط للمرضى ولكن أيضاً لأفراد أسرهم والمهنيين الصحيين للتعرف على المشكلات النفسية والاجتماعية لدى المرضى الذين يعانون من التهاب المفاصل الروماتويدي.