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ORIGINAL RESEARCH PAIN MANAGEMENT

Arthritis cannot break my spirit: functional disability, social support and life orientation in patients with rheumatoid arthritis

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ABSTRACT

Background & objective: A chronic autoimmune disease that affects millions of humans worldwide is known as Rheumatoid arthritis. In addition to joint discomfort and swelling, this disorder can cause systemic symptoms and long-term joint damage, which can cause a harmful effect on the person's quality of life. So, this study aimed to assess the association between functional disability, social support, and life orientation in patients with rheumatoid arthritis.

Methodology: A research design with cross-sectional and purposive sampling techniques was used to collect data (N = 150) from patients with rheumatoid arthritis. The 'Functional Status Questionnaire', the 'Multidimensional Scale of Perceived Social Support', and the 'Modified Life Overview Test' were used for data collection.

Results: Results showed that functional disability was significantly negatively associated with social support and negatively with life orientation. Similarly, social support was found positively correlated with life orientation. Additionally, functional disability was found to be a significant negative predictor while social support was found a positive predictor of life orientation. Function disability was high in female patients.

Conclusion: It was concluded that rheumatoid arthritis affects a person badly. This study can be helpful for psychologists and mental health relievers to investigate the psychological problems linked with this problem and then manage them accordingly.

Keywords: Rheumatoid arthritis, functional disability, social support, life orientation

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1. INTRODUCTION

The World Health Organization claims that the greatest global cause of premature death is chronic illness. It is thought to be the cause of 63% of all fatalities.[1] One chronic illness that seriously reduces a sufferer's ability to perform is rheumatoid arthritis (RA).[2] Rheumatoid arthritis is the rheumatic disease with the highest prevalence of connective tissue issues.[3] The deterioration and deformation of articular tissues and the

impairment of articulatory function are the results of a chronic, progressing inflammatory process.[4] Numerous somatic problems are brought on by rheumatoid arthritis, as well as joint degeneration and deprivation, chronic pain, fatigue, weight loss, and fever.[5] The patient also faces psychological problems, which are often exemplified by adverse effects like anxiety, sorrow, feelings of loss, and social barriers related to changes in performing their responsibilities.[6]

A systemic inflammatory condition called rheumatoid arthritis has the potential to lead to debilitating joint disease, severe disability, and higher mortality rates. It is a condition that primarily affects the hands and feet but can affect other joints as well. This causes swollen, painful, stiff, and perhaps functionally impaired joints.[7] Patients with RA might receive both pharmaceutical and non-pharmacological treatment and rehabilitation. Early diagnosis and therapy are crucial to preventing disease activity from rising and causing joint injury.[8] Additionally, research has shown that despite improvements in the pharmacological treatment of RA over the years, the general quality of life for RA patients continues to be significantly lower than that of the general population.[9]

A functional disability is described as a lessened ability or the incapacity to carry out fundamental self-care chores that are often needed for dependent people to live in the community.[10] Functional loss creates significant continuous chronic stress by making it difficult to manage essential instrumental and social activities.[11] According to many studies.[12,13)], it has been conceptualized as a stressor that impairs a person's capacity to connect with their physical and social surroundings and hence raises their chance of developing depression. One of the most difficult life experiences in later life is being reliant.[14] Functional disability reduces elderly people's independence while also making it difficult for them to continue with their current lifestyles, social roles, and activities.[15] Functional impairment comes in a variety of forms, including impaired mobility, visual impairments, cognitive impairments, and communication impairments.

Social support encompasses the aid, understanding, and resources expended by peers, family members, and the community, which individuals find valuable during challenging circumstances or moments of vulnerability.[16] Social support means reaching out to other people, including friends and family when someone is experiencing a crisis to get more attention and a positive view of them. Social support enhances the quality of life as well as provides a system of defence against traumatic life events.[17] Accordingly, perceived social support was defined as the amount of actual care received from family, friends, and community members. Furthermore, social support is an important preventive measure for life-threatening events and high levels of social support enhance treatment and improve treatment outcomes. Social support also helps in dealing with life stressors by increasing mental toughness ([18]) and quality of life.[19] Patients who receive adequate social support are more likely to have positive mental health outcomes such as less depression and higher quality of life.[20]

Learning about interacting with others and society is called Life orientation.[21] Self-awareness, environmental awareness, civic responsibility, a healthy and fulfilling life, socializing, physical activity, and career and career options are all covered in it. These programs are all about acquiring and applying various life skills that can be useful for solving problems, making rational choices, and winning a satisfying life in this rapidly changing world.[22] Consequently, it strongly emphasises the advantages of using knowledge, skills, and values in real-world situations, participating in physical activity, and supporting neighbourhood organizations and projects. Life Orientation (LO) is a subject with four areas of focus according to the national curriculum.[23] The four areas of attention are personal well-being, citizenship and education, leisure and physical activities, and professional and career options. Each of the four main Learning Outcomes for Life Orientation (LO) is drawn from one of these focal areas.[24] When it comes to a person's overall growth, life orientation is crucial. It addresses the principles, abilities, and information necessary for people to grow physically, personally, emotionally, intellectually, and socially.[25]

Rheumatoid arthritis patients have been identified as one of the key populations most at risk for functional disability. People who are afflicted with this disease look for social support from their family and peers as everyone is aware that it is a lifelong illness that is hardly curable. Any physical impairment is thought to have a direct impact on mental health. People with physical deficiencies or functional limitations are normally having less opportunity to participate in social activities. These limitations may have the worst impact on people's mental health and well-being. There has not been any study done on life orientation, particularly with social support and functional disability, in patients with rheumatoid arthritis.

Objectives

- To assess the relationship among functional disability, social support, and life orientation in patients with rheumatoid arthritis.
- To find out the predicting role of functional disability and social support on life orientation in patients with rheumatoid arthritis.

- To assess the gender differences in functional disability, social support, and life orientation in patients with rheumatoid arthritis.

Hypotheses

- Functional disability is likely to have a significant negative relationship with life orientation whereas social support is likely to have a positive relationship with Life Orientation in patients with Rheumatoid Arthritis.
- Functional disability is likely to be a significant negative predictor of life orientation whereas Social Support is likely to be a positive predictor of Life Orientation in patients with Rheumatoid Arthritis.
- There is likely to be a gender difference in the levels of functional disability, social support, and life orientation in patients with rheumatoid arthritis.

2. METHODOLOGY

For the collection of data, a cross-sectional research design along with a non-probability purposive sampling technique was used from patients with Rheumatoid Arthritis. The total sample size (*N*=150; n=75 Men and n=75 women) was collected by using a purposive sampling technique. The setting of the sample was 4 Government Hospitals of Lahore Pakistan i.e. Jinnah Hospital, Services Hospital, Lahore General Hospital, and Mayo Hospital. The study comprised both male and female participants diagnosed with Rheumatoid Arthritis, focusing on the 35-55 age range for a targeted analysis of this specific demographic. The study excluded participants with alternative bone diseases, physical damage, or diagnosed physical and psychological co-morbid conditions, ensuring a focused analysis solely on RA.

2.1. Measures

The Functional Status Questionnaire (FSQ), developed by Jette et al.,[26] is a 34-item survey assessing five subscales: Physical Function in Activities of Daily Living, Psychological Function, Role Function, Social Function, and Quality of Social demonstrating internal consistency reliabilities ranging from Cronbach's α = 0.64 to 0.82. The Revised Life Orientation Test (LOT-R), devised by psychologist Michael Scheier and colleagues in 1994, assesses future optimism or pessimism through a 10-item scale.[27] Zimet's[28] Multidimensional Scale of Perceived Social Support (MSPSS) is a 12-item scale evaluating social support from family, friends, and a significant other. With Likert scale ratings from very strongly disagree to very strongly agree (7 points), internal consistency for subscales ranged from Cronbach's α = 0.70 to 0.87, while the overall scale exhibited a high consistency of 0.92.

2.2. Ethical consideration

Before employing the scales, permission from the authors was secured. Participants provided informed consent before questionnaire administration, with assurance of no physical or psychological pressure. The study maintained confidentiality for academic purposes only. Voluntary participation was emphasized, and participants retained the right to withdraw at any stage.

3. RESULTS

Table 1 presents the Cronbach's Alpha values for three scales and their associated subscales, all of which meet satisfactory values.

Table 1: Cronbach's Alpha of Functional Disability, Multidimensional Scale of Perceived Social Support, and Revised Life Orientation Questionnaire

Variable	*k*	*α*
Physical Function	9	.62
Psychological Function	5	.71
Social Function	14	.57
Social Support	12	.88
Life Orientation	6	.76

Note: α = Cronbach's Alpha, k = Number of items in a scale.

Table 2: Pearson Product Moment Correlation, mean and standard deviation of Functional Disability, Perceived Social Support and Life Orientation in patients with rheumatoid arthritis

Variables	1	2	3
1. Functional Disability	-	-.48**	-.31*
2. Social Support	-	-	.55**
3. Life Orientation	-	-	-
Mean ± SD	88.29 ± 28.6	49.91 ± 15.54	14.73 ± 5.99

*Note: *P < .05; **P < .01*

Table 2 presents the Pearson product-moment correlation among functional disability (physical function, psychological function, and social function), social support, and life orientation in RA patients. The findings reveal physical, psychological, and social disability negatively correlated with social support and life orientation. Along with this, social support positively correlated with life orientation in RA patients.

Table 3: multiple regression analysis of Functional Disability and Perceived Social Support in patients with rheumatoid arthritis

Variable	β	R2	ΔR2	p
Functional Disability	-.66	.28	.20	.000***
Perceived Social Support	.19	.53	.33	.000***

*Note: ***P < .001.*

Table 4: Independent Sample T-test for Gender, Functional Disability, Perceived Social Support and Life Orientation in Patients with Rheumatoid Arthritis

Variable	Male (n = 75)	Female (n = 75)	t	p	Cohen's d
Functional disability	84.44 ± 29.27	92.14 ± 27.67	-2.39	.01**	0.27
Perceived social support	49.16 ± 17.01	50.66 ± 14.05	-1.16	.09	0.09
Life Orientation	15.30 ± 6.27	14.16 ± 5.70	.45	.27	0.19

*Note: **p< .01\ Data given as Mean ± SD*

Table 3 outlines the impact of Functional disability and perceived social support on life orientation in rheumatoid arthritis patients. The R2 value for functional disability (0.28) indicates that this predictor explains 28% of the variance in Life Orientation (F [1, 198] = 10.88, P < 0.001), with a negative prediction. Additionally, the R2 value for perceived social support (0.53) suggests that this predictor explains 53% of the variance in Life Orientation (F [1, 198] = 21.25, P < 0.001), with a positive prediction.

The presented table displays the outcomes of an independent group t-test comparing three test variables—functional disability, perceived social support, and life orientation—with a grouping variable, gender (Male and Female). The results indicate a significant mean difference in functional disability between males (84.44 ± 29.27) and female (92.14 ± 27.67) patients, with a small effect size. However, no significant differences were observed in perceived social support and life orientation between the male and female patient groups.

4. DISCUSSION

The current study aimed to examine how functional disability, social support and life orientation relate to each other in RA patients. The study sample consisted of 150 RA patients.

It was hypothesized that functional disability would be negatively correlated with life orientation. Results were in line with previous literature as a study showed a negative correlation between functional disability and quality of life in patients with RA.[29] Results support this idea that an increase in functional impairment decreases the quality of life. A lower level of activity can create more intense negative emotions which ultimately affect an individual's overall attitude about life. Research also suggested a positive association between perceived social support and life orientation. Consistent with previous literature,[30] results revealed a positive association between social support and life orientation in patients with RA. The results highlight the importance of social support as it provides patients with a coping tool that helps them face the challenges of their illness by enhancing hope.

Along with this, the present study postulated a negative association between functional disability and social support in patients with RA. To converse this hypothesis, it is important to capture definitions of functional disability adaptation and social support in the context of neurology. Functional disability refers to the limitations that patients face in their daily activities when they graduate because of their disease, whereas RA patients with family, friends, and healthcare providers can find it easier to adhere to treatment and better cope with their condition while being supported in life. Research highlights a direct negative association between social support and functional disability in patients with RA. Specifically, those with more severe functioning tend to report lower levels of social support. These results are related to previous literature showing

that there is a negative relationship between social support and functional disability.[31] Another study results also showed a negative association between social support and functional disability.[32] Which indicated that a higher level of social support is correlated with a lower level of functional disability. This emphasized the importance of social support in reducing functional impairment in older individuals. Another study by Wang et al,[33] suggested that social support might assist in alleviating the adverse effects of functional disability on mental health. This finding is consistent with another study,[34] which revealed that social support directly reduces the effects of functional disability on mental health by promoting self-worth and psychological well-being.

Furthermore, it was hypothesized that functional disability is likely to predict life orientation negatively. Results from this study showed that functional disability was found to be a negative predictor of life orientation. Findings suggested that functional disability leads to significant social, emotional, and cognitive impairment, which may lead to limitations in both physical and psychological functioning. These findings have been consistent with several other studies.[35, 36] The findings of this study suggest that functional disability has a significant negative impact on life orientation and the overall well-being of RA patients. Conversely, research supported a positive relationship between social support and life orientation, and findings indicate that social support is a significant predictor of life orientation in RA patients. This result is consistent with previous studies suggesting that social support acts as a positive predictor of life orientation in RA patients.[37]

Research highlights the importance of social support in enhancing life orientation. Results suggest that individuals with RA who receive high levels of social support have a more positive outlook on life and exhibit greater resilience in coping with the challenges posed by their condition. Social support is a critical resource that helps individuals navigate their illness and its associated challenges, leading to a better quality of life and a more optimistic view of the future.[38]

Gender differences in functional disability, social support, and life orientation were also explored in the current study. The results indicated that there are gender differences in these variables among patients with RA. Specifically, women with RA were found to have higher levels of functional disability and lower levels of life orientation compared to men. These findings are consistent with previous research suggesting that women are more likely to experience higher levels of functional disability and lower levels of life orientation.[39] This suggests that women with RA may face more significant challenges in managing their condition and maintaining a positive outlook on life.

5. LIMITATIONS

This study was conducted on a small sample. Future research need to be conducted with a larger sample size from all over the province or country.

6. CONCLUSION

In conclusion, offers valuable insights into the important relationship among functional disability, perceived social support, and life orientation in patients with rheumatoid arthritis. Results highlighted the important role of social support in reducing functional disability and promoting a positive outlook on life. Understanding the nuanced ways that gender affects these variables, is crucial for developing supportive and personalized interventions for arthritis management.

7. Conflict of interest

The authors declare no conflicts of interest.

8. Funding

There was no funding for this particular research.

9. Data availability

The numerical data generated during the conduct of this study is available with the corresponding author.

10. Author's Contributions

HMZ: Conducted the study and wrote the initial draft

MNI: Supervised the study and performed statistical analysis

FJ: Edited the manuscript and refined the methodology

MR: Provided expert review

RZ: Collected the data

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