



Illness Perception and Emotion Regulation as Determinants of Well-Being among People with Rheumatoid Arthritis: A Preliminary Inquiry

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ABSTRACT

Background: Rheumatoid arthritis (RA) is considered as an autoimmune condition that causes significant impairments in the body such as inflammation, pain, and fatigue, primarily affecting the joints. Extensive literature exists on its physiological consequences and the difficulties associated with this illness. Both environmental factors and personal characteristics can potentially determine the extent to which a disease impacts an individual's overall wellness. Identifying psychological determinants that strengthen and limit the experience of well-being is central.

Methods: By adopting a purposive sampling method 121 rheumatoid arthritis patients were selected in the study aged between 40 to 55 years.

Results: Multiple linear regression analysis was carried out. It found that illness perception and maladaptive regulation negatively predicted well-being, while adaptive regulation positively predicted well-being, accounting for 45% of the variance in well-being. **Conclusion:** Psychological factors can act as both protective and risk factors in rheumatoid arthritis. The study results offer insights into how psychological factors interact with rheumatoid arthritis in individuals, potentially informing the development of psychological interventions emphasizing adaptive emotion regulation strategies. Integrating psychological interventions along with pharmacotherapy may produce more favorable treatment outcomes.

Keywords: Illness Perception, Emotion Regulation, Well-Being, and Rheumatoid Arthritis

I. INTRODUCTION

Mental health problems are more prevalent among adults diagnosed with rheumatoid arthritis than in the general population¹. While physical impairment is typically straightforward to detect during a clinical examination, clinicians may

overlook social and psychological difficulties, often prioritizing physical aspects. Mental health concerns are prevalent among RA patients and make significant disruptions in functional states to varying degrees². Mental health comorbidities can exacerbate impairment in patients with chronic illnesses³, interfere with disease treatment⁴, and elevate disease severity and mortality⁵. It may take years for a disease to develop, but once diagnosed, it quickly takes control due to a lack of knowledge on how to manage it, not only physically but also psychologically⁶.

Psychological determinants have the potential to act as both protective and risk factors and can have multidimensional changes in an individual's perception of the illness⁷. People with most forms of arthritis must cope with their symptoms as well as other physical restrictions⁸. Functional management of such aspects always improves their ability to engage in everyday activities like work, family life, leisure, and social relationships⁹. However, arthritis-related pain makes it difficult to engage in these activities¹⁰ and can harm social and psychological health¹¹. Strategies that teach patients and their families how to manage a chronic condition like RA, supporting them in dealing with different aspects of social support, may improve their well-being¹². However, the healthcare system has often overlooked the psychological challenges that accompany such illnesses¹³. In this alarming trend, it becomes an essential concern to identify the role of psychological determinants and their contributory role in well-being¹⁴.

II. METHOD

Participants

The sample was collected from private clinics located in the Thrissur and Ernakulam districts of Kerala. 121 rheumatoid arthritis patients aged between 40 to 55 years were selected by



purposive sampling method. The study was conducted as a preliminary analysis, thus the sample size was limited to 121, and participants who met inclusion and exclusion criteria were recruited. Patients in the age group between 40 to 55 years and individuals diagnosed with the illness and started treatment for a minimum of six months were included in the study. Patients with any other psychiatric illnesses and individuals with any other serious comorbid medical conditions were excluded.

Research Design

To understand the relationship between the study variables the researcher adopted a correlational research design.

Instruments

1. The PERMA-Profiler¹⁵.

The test consists of 23 items and mainly covers five dimensions that are considered five pillars of well-being. In addition to the five dimensions, there are questions related to health, negative emotions, loneliness, and happiness that act as fillers. It is an eleven-point rating scale ranging from 0 to 10 with varying response patterns for each section. The seven subscales are measured by three questions for each dimension and happiness and loneliness it was measured by one question each. The overall well-being score is calculated by computing the mean score of the five PERMA dimensions and happiness. The questionnaire demonstrates excellent psychometric properties and reliability ranging from .72 to .94 for all dimensions.

2. Cognitive Emotion Regulation Questionnaire¹⁶.

The questionnaire contains 36 items to measure cognitive emotion regulation strategies, consisting of nine subscales covering both adaptive and maladaptive regulation strategies. Adaptive strategies include acceptance, planning, positive reappraisal, planning refocus, and positive

refocusing, while maladaptive strategies include rumination, other-blame, self-blame, putting into perspective, and catastrophizing. Responses are measured on a five-point scale and each subscale has four questions, with a maximum possible score of 20. The CERQ has Cronbach's alpha values ranging from .68 to .81.

3. Brief Illness Perception Questionnaire¹⁷.

The test consists of 9 items representing nine subscales. The first five items measure cognitive aspects of illness (timeline, identity, personal control, consequences, and treatment control), and the sixth and eighth items measure emotional aspects, and the seventh item assesses understanding of the illness. The last question addresses the causes of the illness. Responses are given on an eleven-point scale from 0 to 10, with varying patterns for each question. The BIPQ includes both direct and reverse scoring and can be interpreted by subscales or overall scores, where higher scores indicate a more threatening view of the illness. Cronbach's alpha values for the subscales range from .42 to .75.

Procedure

The researcher individually approached the private clinics to gain pre-approval to conduct the study. Meetings were scheduled with doctors to explain the nature of the study, the instruments, testing procedures, and data collection dates. After obtaining written informed consent from participants, the questionnaires were individually administered.

Ethical Statement

The authors have obtained and written consent from all participants involved in the research study. This process involved informing participants about the purpose, procedures, potential risks, and benefits of the study, ensuring they understood their rights and the voluntary nature of their participation.

III. RESULTS

Table 1

Illness Perception, Adaptive Regulation, and Maladaptive Regulation as Predictors of Well-Being among Rheumatoid Arthritis Patients.

Variable	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	<i>p</i>
	B	SE			
Constant	109.06	6.56		16.62	.001



Illness perception	-.277	.06	-.297	-4.07	.001
Adaptive Regulation	.540	.07	.541	7.50	.001
Maladaptive Regulation	-.229	.08	-.200	-2.69	.008

$R^2 = .45$, $Adj. R^2 = .44$, $F = 31.87$, $p < .05$

Table 1 shows a multiple linear regression analysis identifying illness perception, adaptive regulation, and maladaptive regulation as predictors of well-being among rheumatoid arthritis patients. Illness perception and maladaptive regulation negatively predicted well-being, while adaptive regulation positively predicted well-being, accounting for 45% of the variance in well-being.

IV. DISCUSSION

The regression analysis revealed that illness perception and maladaptive regulation negatively predicted well-being, while adaptive regulation positively predicted well-being. Higher levels of illness perception are linked with poor levels of well-being. The Illness perceptions refer to the structured cognitive representations or beliefs held by patients regarding their illness¹⁸. These perceptions significantly influence behavior and are linked with crucial outcomes such as treatment adherence and functional recovery. A recent study reported that illness perceptions are a vital component in rheumatoid arthritis, acting as therapeutics in illness management¹⁹, and addressing illness perceptions is crucial for enhancing the quality of life among patients diagnosed with RA²⁰. Researchers also emphasized the significant effect of illness perception on psychological health outcomes and its contributory role among RA patients²¹. Literature highlights the necessity of addressing illness perception through adequate interventional programs essential for RA management, altering false perceptions about the illness, and educating the patient about the psychological consequences.

The findings also uncovered that adaptive emotion regulation strategies act as a protective factor, enhancing psychological well-being among people with RA. Adaptive regulation strategies include acceptance, positive refocusing, positive reappraisal, and refocus on planning. Affective disturbances are very prevalent among RA patients and identifying psychological determinants unique to each individual can improve current treatment outcome²². A recent study findings reported that cognitive reappraisal of emotion regulation is

associated with physical and psychological well-being²³. A similar study stated that both acceptance and cognitive appraisal are significant aspects of living with RA²⁴. Thus, the incorporation of comprehensive interventions in the clinical practice to enhance adaptive emotion regulation strategies will produce significant changes in the treatment outcome.

Conversely, maladaptive regulation negatively predicted well-being. Maladaptive emotion regulation refers to ineffective or harmful strategies individuals use to manage their emotions²⁵. Instead of effectively processing and coping with their emotions, individuals may employ methods that exacerbate their distress or lead to negative consequences²⁶. Maladaptive emotion regulation includes suppression of emotions, avoidance of emotional situations, rumination (repeatedly thinking about negative emotions), and engaging in self-destructive behaviors such as substance abuse or self-harm²⁷. These strategies may provide temporary relief but can ultimately perpetuate emotional distress and impair functioning in the long term²⁸. Identifying and changing maladaptive emotion regulation strategies with a comprehensive care plan is essential in the RA population.

V. CONCLUSION

The results emphasize the role of psychological factors in determining well-being among RA patients. Literature also supports the inclusion of psychological intervention programs in disease management to address these determinants effectively. Providing psychoeducation will be an appropriate solution to address illness perception and maladaptive regulation strategies. The information transfer will generate a level of insight among patients about the consequences and also increase the treatment adherence behavior. Incorporation of other interventions such as mindfulness training and acceptance and commitment therapy will also assist the patients to make it less suffering to live with the illness without any self-damage.



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CONFLICT OF INTEREST STATEMENT

The authors declared no conflict of interest with regard to content, authorship and publication of this article.

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