

PAIN ANXIETY, AFFECT, COPING AND RESILIENCE AMONG RHEUMATOID ARTHRITIS PATIENTS

Rajendra Mhaske

Dr., Professor, Department of Psychology, Savitribai Phule Pune University, Pune (India)

Abstract

The Rheumatoid-arthritis considered as a chronic disease, which affects approximately 21 million individuals worldwide (UN World Population Database, 2004 revision). The rheumatoid-arthritis affects 15% of Indian population, such as over 180 million people suffers by rheumatoid-arthritis in India. In the present study, total sample of 122 male and female rheumatoid arthritis patients (Mean age = 55) were taken from one RA specialized hospital in Pune city (India). Incidental and snow-ball sampling methods were used for data collection. *The Brief Resilience Scale (Smith et al., 2008)*, *Brief Coping Inventory (Carver et al., 1987)*, *PANAS-SF (Watson & Tellegen, 1988)*, and *Pain Anxiety Symptoms Scale (PASS-20) (McCracken & Dingra, 2002)* were used. Age found positively correlated with duration of suffering ($r = .383, P < .01$), active coping found positively correlated ($r = .224, P < .01$) with resilience and positive affect was found positively correlated with resilience ($r = .94, P < .01$), and pain anxiety found positively correlated with negative affect ($r = .234, P < .01$). In regression, results indicated that religious coping and negative affect were found jointly 19% predictor of approach coping, and physiological anxiety emerged as only predictor of negative affect which was explaining 4.8% of variance. The results are discussed in detail manner with supporting researcher in complete paper of present study.

Keywords: *Psychology and rheumatoid-arthritis, affect and rheumatoid-arthritis, coping and rheumatoid-arthritis, psychological well-being and rheumatoid-arthritis.*

1. Introduction

Rheumatoid arthritis is considered to be chronic disease and the number of deaths due to chronic diseases has been steadily rising in Indian population. Arthritis affects 15% of Indian population, such as over 180 million people suffers by arthritis in India (www.arthritis-India-com, 2021), and approximately 21 million individuals affected by rheumatoid-arthritis worldwide (UN World Population Database, 2004)). Arthritic conditions are a group of approximately 110 diseases and syndrome associated with intense pain that usually worsens over time, rheumatoid-arthritis is an autoimmune disease that results in significant joint inflammation and pain. It affects nearly 1% of the adult population in world (Sangha, 2000).

Increasing body of evidences are suggesting that psychological disorders and arthritis are intimately intertwined (Harris, 2016). An individual in response to arthritis-related symptoms such as pain have a significant impact on psychological and physical health outcomes (Brown et al., 1989; Covic et al., 2000; Covic et al., 2003). Most of the research suggested that pain adversely affects all aspects of functioning, including more frequent and disruptive maladaptive thoughts about pain (Sturgeon & Zautra, 2013). Adult with arthritis experiences high levels of anxiety, and prevalence of depression is approximately twice as high as depression (Murphy et al., 2012), and patients also found associated with higher risk of anxiety (Zautra et al., 1995).

In coping, passive maladaptive coping approaches have found associated with increased arthritis pain, disability, and depression in comparison to individuals who employ problem-based coping strategies (Brown et al., 1989; Covic et al., 2000; Covic et al., 2003; Evers et al., 2003; & Van et al., 2000), rheumatoid patients found using higher levels of maladaptive coping, and maladaptive coping found associated with lower positive affect and higher negative affect, and due to higher activity limitation patients use less adoptive coping (Billings et al., 2000), avoidant coping was found related to negative affect with more physical symptoms (Qui et al., 2019).

Resilient individuals confront crisis effectively and tend to engage in behaviour that ultimately lead to effective adaptation to a situation (Fitzpatrick & Vacha-Haase, 2010; Blum, 1998; Cederblad et al., 1994; and Rutter, 1995). In chronic pain, resilience sustainability refers to continued positive engagement (Strugeon & Zautra, 2010), variety of positive outcomes in chronic pain, including increased feelings of vitality (Salathe et al., 2013), and physical functioning (Torma et al., 2013), and lower rates of disability and mortality (Elliot et al., 2014). Some studies suggested that positive affect contribute more resilient psychological and physical health trajectories in coping with a serious illness (Moskowitz, 2010). Some studies found gender differences in pain perception and negative affectivity (Keogh, 2001), and previous findings show that women reported more negative pain-related experiences, different pain coping strategies than men (Keogh & Asmundson, 2007).

2. Objectives of the study

The present study was plan to understand the role of anxiety, affect, coping, and resilience in arthritis patients, the study will also help to analyze predictors of coping, negative affect, and resilience among arthritis patients.

3. Hypotheses

On the basis of previous research and present objectives of the study, we assume that there will be positive correlation between age and duration of suffering, active coping and religious coping will be positively correlated with positive affect and resilience. Resilience will be negatively correlated with negative affect, and anxiety and coping will be the predictors of negative affect in rheumatoid patients.

4. Methodology

4.1. Sample description and procedure

A total sample of 122 rheumatoid arthritis patients (M= 22 and F= 100) were taken from specialized hospital in Pune (India). The age range of patients were from 25-85. All patients were educated and from middle-class to upper-middle class socio-economic status. Convenient and snow ball sampling techniques were used for data collection. Confidentiality of data was maintained and all precautionary measures were taken.

4.2. Tools/Measurement used

4.2.1. Personal data sheet. Through this personal information such as name, sex, age, education, physical problems, information of present disease, annual income and co-morbidity of diseases collected from patient.

4.2.2. The brief resilience scale (Smith et al., 2008). This scale has six items along with five responses (1 to 5) from Strongly Disagree to Strongly Agree. The Cronbach's alpha ranging from .80 to .91 is given for internal reliability and for validity, convergent and discriminant predictive validity used.

4.2.3. Brief coping inventory (Carver et al., 1987). The test contained 28 items with four alternative responses from 1 to 5. This inventory divided in two types of coping namely, avoidant coping and approach coping. The internal consistency measured by Cronbach's alpha for 12 sub-scales from .71 to .75 is given.

4.2.4. Positive and negative affect schedule (PANAS-SF) (Watson & Tellegen, 1988). This scale is a self-report measure of affect. It has 20 items, respondent indicated the extent he has felt this feeling over the past week thorough five alternative responses (1= Very slightly or Not at all to 5= Extremely) for scoring. Test-retest reliability reported as .79 for positive affect and .81 for negative affect.

4.2.5. Pain anxiety symptoms scale (PASS-20) (McCracken & Dhingra, 2002). PASS-20 is a shorter version of PASS-40, respondent rate each item in terms of frequency from 0 (Never) to 5 (Always). The Cronbach's alpha for four subscales ranges from .86 to .91.

5. Results and discussion

Table 1. Show correlation matrix of age, duration of suffering, pain anxiety, affect, coping and resilience among Rheumatoid Arthritis patients (N = 112).

Variables	Age	DoS	AC	Humor	RC	NA	PA	PAnx	Res
Age	---	.383**	-.003 ^{NS}	-.198*	-.154 ^{NS}	.005 ^{NS}	.073 ^{NS}	.092 ^{NS}	.148 ^{NS}
DoS	.383**	---	-.071 ^{NS}	-.136 ^{NS}	-.154 ^{NS}	-.052 ^{NS}	.096 ^{NS}	.071 ^{NS}	-.128 ^{NS}
AC	-.003 ^{NS}	-.071 ^{NS}	----	-.162 ^{NS}	.412**	-.266**	.028 ^{NS}	.051 ^{NS}	.224**
RC	-.055 ^{NS}	-.154 ^{NS}	.412**	-.052 ^{NS}	----	-.177 ^{NS}	.151 ^{NS}	.051 ^{NS}	.193*
NA	.005 ^{NS}	-.052 ^{NS}	-.177 ^{NS}	.242*	-.177 ^{NS}	----	.206 ^{NS}	.234*	-.192*
PA	.073 ^{NS}	.096 ^{NS}	.151 ^{NS}	-.162 ^{NS}	.172 ^{NS}	.206 ^{NS}	----	.159 ^{NS}	.194*
PAnx	.092 ^{NS}	.071 ^{NS}	.051 ^{NS}	.205*	.051 ^{NS}	.234**	.159 ^{NS}	----	.118 ^{NS}

Var = Variables, DoS = Duration of Suffering, AC = Active Coping, RC = Religious Coping, NA = Negative Affect, PA = Positive Affect, PAnx = Pain Anxiety, Res = Resilience. ** $p < .01$ level, * $p < .05$ level, NS = Not Significant.

As results shows positive correlation ($r = .383$, $p < .01$) between age and duration of suffering therefore. According to history of disease, age of onset of arthritis is very early and people aged from 18 to 44 years reported 7.1% disease (www.cdc.gov/chronicdisease/resources, 2021). Due to chronicity of the disease many patients suffer in young age and experience of pain and disability lasted till older age, and due to this, age and duration of suffering found positively correlated in present research and results also supported first hypothesis.

In coping and affect, religious coping ($r = .193$, $p < .05$), active coping ($r = .224$, $p < .01$), and positive affect ($r = .194$, $p < .05$) found positively correlated with resilience. As studies reported that older men and women with rheumatoid arthritis used a variety of coping strategies in order to adjust with disease (Melanson & Downe-Wamboldt, 2003), active coping strategies, such as planning and problem solving, have been linked to a higher degree of well-being and capacity to handle stress, trauma, and medical illness (Southwick et al., 2005), active coping is an adaptive way of dealing with stressful events and is a major component of resilience in the face of stress and adversity (Carroll, 2013), the religious or spiritual beliefs are also used as one strategy to cope with the suffering (Rippentrop, 2005).

Resilience found negatively correlated with negative affect ($r = -.192$, $p < .05$), and positively associated with positive affect ($r = .195$, $p < .05$), as study found that resilient individuals confront a crisis successfully and engage in positive behaviour to adjust coping strategies for effective adaptation to the situation (Qiu et al., 2019), and positive affect found relevant to recovery from pain (Zautra & Smith, 2001). High resilient individuals tend to report positive emotions in stress and these positive emotions contributed to recovery from stress-related negative effects (Tugade & Fredrickson, 2004), persons with higher positive affect show greater capacity to recover psychologically and physiologically to stressful events (Fredrickson, 2001).

As multiple regression analysis carried out with physiological anxiety as the predictor variable and negative affect entered as dependent variable. For the negative affect obtained value was $R^2 = .057$, adjusted $R^2 = .048$, $F = 6.63$, $p < .05$, and beta value was .239, $p < .05$. The result indicated that physiological anxiety emerged as the predictor of negative affect explaining 5 % of the variance.

As anxiety and pain is a key component of negative affect and many studies reported that pain is common phenomenon in arthritis and pain increases prevalence of depression and anxiety (Pincus et al., 1996), and negative moods found associated with a wide range of pain-related symptoms such as increased pain experiences (Taenzer et al., 1986; & Geisser et al., 2000), disturbed physical functioning (Holzberg et al., 1996).

In present study, negative affect found positively correlated with pain anxiety ($r = .234$, $p < .05$) and out of 122 total sample 100 patients were female, and previous study also reported that in osteoarthritis patients' women reported higher levels of pain and disability than men (Keefe et al., 2000), and finding is highly relevant with the present study, as we hypothesized that anxiety and coping would be predictors of negative affect, and as per results physiological anxiety as a subscale of pain anxiety is predicting 5% variance of negative affect, but coping was not found as significant predictor, therefore, our last hypothesis partially accepted.

6. Application of present study

The present findings will be applicable in following manner:

1. Useful to understand the interaction of anxiety, affect, coping and resilience among rheumatoid-arthritis patients.
2. To plan intervention strategies to increase coping and decrease pain anxiety in RA patients.

3. To understand the adaptive coping mechanism against pain and adjustment with rheumatoid-arthritis.

4. As study found positive association between coping, positive affect and resilience, which will help patients increase their personal resources and greater perceptions of growth in handling the symptoms of arthritis.

5. On the basis of findings some counseling techniques may plan to provide psychological help such as how to increase the resilience and positive behavior and decrease the anxiety, pain, and maladapted coping strategies.

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