

## A Comparison of Psychological Afflictions, Life Style and Stress between Rheumatoid Arthritis (RA) Patients and Normal Adults

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### Abstract

It was hypothesized that there would be a significant difference in Psychological Afflictions, Life Style and Psychosocial Stressors between Rheumatoid Arthritis (RA) Patients and normal adults. So to compare the two groups double matched group design is used. The sample of the study consisted of 80, subjects where 40 were Rheumatoid Arthritis (RA) patients and 40 were normal adults. To compare both the groups, significance of difference between means was tested. Psychological Afflictions were measured by 4 different scales: (1) Egotism Scale by Das and Sisodia, 2011 (2) Attachment Scale by Das and Sharma, 2012 (3) Anger Scale by Das and Sharma, 2012 and (4) Greediness Scale by Das and Sharma, 2013 called by author "Know Yourself Part I, II, III, IV". Life style scale was prepared by Das and Chaudhary, 2010. ICMR Psychosocial Stressor questionnaire of stress by Srivastav (1992) was used to measure the stress. A result shows that the Psychological Afflictions (Egotism, Attachment, Anger, Greed) of RA patients are significantly higher than those of normal adults. Among Life style variables Food Intake Behavior, Physical Activity, Sleeping Behavior of RA patients are significantly higher than those of normal adults and there is no difference in Spiritual Behavior of RA Patients and normal adults. For Psychosocial Stressors RA patients are significantly higher than those of normal adults.

Hence, it can be concluded that Rheumatoid Arthritis (RA) Patients have significantly greater afflictions of mind and are lower on life style measures of behavior, in comparison to normal adults. Thus control on mental afflictions leads to better bodily health. At the same time healthy life style helps in controlling mind and brain and in improving immune system with the help of brain activities.

**Keywords:** Stress, Psychological Afflictions, Life Style.

### Introduction

People with high mental afflictions or *Vikaras of Mind* have impurities in their mind which are the cause of cognitive disturbances. Their disturbed mental health along with their unhealthy lifestyle disturbs their immune systems which in turn creates problems of autoimmune disease. One such autoimmune disease is Rheumatoid Arthritis (RA).

So the investigator was curious to make a comparison of psychological afflictions (i.e. egotism, attachment, anger and greed), life style (food intake behavior, sleeping behavior, physical activity and spiritual behavior) and psychosocial stressors between rheumatoid arthritis patients and that of normal adults.

### Rheumatoid Arthritis

Rheumatoid arthritis (RA) is a chronic (long-term) and auto immune disease that results in a systemic inflammatory disorder that may affect many tissues and organs, but principally attacks flexible joints. Joint inflammation causes redness, warmth, swelling, and pain within the joint. It can be a disabling and painful condition, which can lead to substantial loss of functioning and mobility if not adequately treated. In autoimmune disease, body's immune system attacks its own healthy tissues. Once the immune system is triggered, immune cells migrate from the blood into the joints and joint-lining tissue, called synovium. There the immune cells make inflammatory substances that cause irritation, wearing down of cartilage

(the cushioning material at the end of bones), swelling and inflammation of the joint lining. As the cartilage wears down, the space between the bones narrows. As it gets worse, the bones could rub against each other. Inflammation of the joint lining causes fluid to build up with the joint. As the lining expands, it may damage the bone. All these things cause the joint to become very painful, swollen, and warm to touch.

Rheumatoid arthritis symptoms can come and go, and each person with rheumatoid arthritis is affected differently. Though the real cause of rheumatoid arthritis is unknown, autoimmunity plays an important role. It occurs in joints on both sides of the body (such as both hands, both wrists, and both knees).

The prevalence of Rheumatoid arthritis is approximately 0.8% of the population (range 0.3 to 2.1%); women are affected approximately three times more often than men. Sex differences diminish in the older age group. The prevalence increases with age. The 80% of all patients developing this disease are between the age of 35 and 50. Some of the family studies indicate a genetic predisposition (first degree relatives).

It was assumed that some of psychological factors like Psychological Afflictions (Egotism, Anger, Attachment and Greed), life style (Food intake behavior, physical activities, sleeping behavior and spiritual behavior) and psychosocial stress seem to be related to rheumatoid arthritis.

## **Psychological Afflictions**

### **Egotism**

Egotism is the drive to maintain and enhance favorable views of oneself, and generally features an inflated opinion of one's personal features and importance-intellectual, physical, social and even spiritual. The egotist has an overwhelming sense of the centrality of the 'Me': of his personal qualities. It is the greatest of all barriers in wisdom, in attaining intuitive knowledge.

### **Attachment**

Attachment may be defined as "affection ties that one person or animal forms between himself and another specific one – a tie that binds them together in space and endures over time." Attachment is the mother of all miseries. It is also one of the negative emotions of the mind. Attachment is selfish, brings bondage, contracts consciousness and becomes a source of torment. A relationship built on expectation can only bring misery. Attachment is the source of our pains or stress. If man is not attached to an object or person, he would not feel the pain when he loses that object or person.

### **Anger**

Anger is an intention to cause harm or an act intended to increase relative social dominance. Anger can take a variety of forms and can be physical or be communicated verbally or non-verbally. Anger is a natural human response and a expression of frustration for a desire which finds obstruction in its fulfillment. Anger destroys mind and body. When we are angry, then anger takes over our mind and body. All the nerves in our body suffer during anger. Kelly

### **Greed**

Greed means extremely high desire for and pursuit of wealth, status, and power. Greed, and any actions associated with it, is possibly to deprive others of potential means (perhaps, of basic survival and comfort). When individual feel obstacles in achieving such desires then it not only creates a mental disturbance but also affects a mind and body concentration which ultimately leads them to chronic illnesses like Rheumatoid Arthritis.

### **Life Style**

In present time lifestyle of person is so disturbed that it is resulting in more illness. This means a bigger burden on an already challenged healthcare system.

### **Food Intake Behavior**

The need for vitamins, minerals, and other micronutrients increases with age because the body's ability to metabolize food and fully extract its nutrients decreases and due to the growing inefficiency of the digestive system due to improper exercises (Reyes, 1999).

### **Sleeping Behavior**

Sleep is a heightened anabolic state, accentuating the growth and rejuvenation of the immune, nervous, skeletal and muscular systems. Sleep problems are common in this population, and are increasingly recognized as a potentially important influence on emotional adjustment and physical symptoms (Hamilton et al., 2008).

### **Physical Activities**

To increase physical strength and maintain bone density, regular exercise reduces an older person's risk factor for rheumatoid arthritis the most common chronic illnesses of adulthood. Frequent and regular physical exercise boosts the immune system, and helps prevent the chronic diseases.

### **Spiritual Behavior**

Spirituality has is a belief in a power operating in the universe that is greater than oneself, a sense of interconnectedness with all living creatures, and an awareness of the purpose and meaning of life and the development of personal, absolute values. It's the way one finds meaning, hope, comfort, and inner peace in one's life. Acts of compassion and selflessness, altruism, and the experience of inner peace are all characteristics of spirituality.

### **Psychosocial Stressors**

The concept of stress was first introduced in the life sciences by Selye in 1936 who has greatly illuminated the action of the automatic nervous system and the pituitary-adrenal system in the body responses to stress. Any situation may be stressful if the organism is unable to adapt easily to it. Stress is a negative condition that can have an impact on one's mental and physical well-being. According to Selye (1956) there are three stages in the response to stress:

### **Acute Stage, Stage of Resistance, Stage of Exhaustion**

Research suggests that signs of stress may be cognitive, emotional, physical, or behavioral.

Stress creates problems such as Rheumatoid Arthritis. People with arthritis experience more anxiety and depression than healthy individuals. These emotional conditions do not predict the initial occurrence of arthritis, but having arthritis clearly increases one's risk of emotional distress.

Once the disease develops, a vicious circle occurs for many patients: arthritis symptoms increase the person's stress, which, in turn, increases symptoms (Dougall & Baum, 2001). The aggravation of rheumatoid arthritis by stress appears to be mediated by the immune system, inasmuch as those with rheumatoid arthritis show stronger immune responses to stress than do comparison groups (Harrington et. al., 1993; Timko, Baumgartner, Moods, & Miller, 1993; Zautra & Smith, 2001).

## Research Methodology

### Problem

Is there any difference in the psychological afflictions (Egotism, Attachment, Anger and Greediness), Life styles (Food intake Behavior, Sleeping Behavior, Physical activities and Spiritual Behavior), and Psychosocial Stressors of Rheumatoid Arthritis patients and normal adults?

### Objectives

1. To compare the level of psychological afflictions (Egotism, Attachment, Anger and Greediness) between rheumatoid arthritis patients and normal adults.
2. To compare the level of life style (Food intake behavior, Sleeping Behavior, Physical activities and Spiritual behavior) between rheumatoid arthritis patients and normal adults.
3. To compare the level of Psychosocial Stressors between rheumatoid arthritis patients and normal adults.

### Justification of the Problem

Many people experience physical disabilities due to rheumatoid arthritis. It may have a connection with some psychological factors or some psychosocial factors. Psychological factors include Psychological afflictions (Egotism, Attachment, Anger and Greediness); whereas psychosocial factors include daily life style (Food intake behavior, Sleeping Behavior, Physical activities and Spiritual behavior) and Psychosocial stressors. So investigator is curious to make comparative study of these variables between Rheumatoid Arthritis patients and normal adults.

### Hypotheses

1. There is a significant difference in psychological afflictions (Egotism, Attachment, Anger and Greediness) between rheumatoid arthritis patients and normal adults.
2. There is a significant difference in life style (Food intake behavior, Sleeping Behavior, Physical activities and Spiritual behavior) between rheumatoid arthritis patients and normal adults.
3. There is a significant difference in Psychosocial Stressors between rheumatoid arthritis patients and normal adults.

## Operational Definitions of the Terms

### Psychological Afflictions

Psychological afflictions can be described as those mental states with negative feelings which make a person miserable and sad.

### Egotism

Egotism means placing oneself at the core of one's world with no concern for others, including those loved or considered as "close," in any other terms except those set by the egotist.

### Attachment

Attachment is not just a connection between two people; it is a bond that involves a desire for regular contact with that person and the experience of distress during separation from that person.

### Anger

Anger may be defined as physical or verbal behavior that is intended to hurt someone voluntary or involuntary.

**Greediness:** Greed is the inordinate desire to possess wealth, goods, or objects of abstract value with the intention to keep it for one's self, far beyond the dictates of basic survival and comfort.

### Stress

Stress occurs when normal homeostatic regulatory mechanism of the body fails to adapt to a situation, when the person perceives that his resources are insufficient for him to deal with his problem.

### Life Style

Life style is a set of attitudes, habits, or behaviors associated with a particular person or group.

### Food intake Behavior

Eating habits for taking food with essential nutrients, such as carbohydrates, fats, proteins, vitamins, or minerals, and is ingested and assimilated by an organism to produce energy, stimulate growth, maintain life and taken in a unit of time, usually daily.

### Physical Activities

Physical activity simply means movement of the body with moderate or vigorous intensity that uses energy.

### Sleeping Behavior

Sleeping behavior is a state when our senses and motor activity are relatively suspended; there is total or partial unconsciousness, and all voluntary muscles are inactive.

### Spiritual Behavior

Spiritual behavior is an effort to know our real self, to discover the true nature of consciousness. It includes prayer, meditation, altruistic behavior & community services etc.

### Sample Description

The sample of present study consisted 80 adults of Agra city out of which 40 were those who have suffered with rheumatoid arthritis problem during at least six months and other 40 were normal adults. The sample of 40 patients was selected purposively and a matched group of 40 normal adults was selected by matching technique. The age range of the adults included (I) young adults, 20 years to 40 years (II) middle adults, 41 years to 60 years (III) old adults,

61 years to 80 years. The sample included both male and female adults. Their educational qualification was at least class 12<sup>th</sup> pass. The entire sample was taken from the middle socioeconomic status (Family income Rs. 30,000 to Rs. 90,000 per month).

**Inclusion Criteria**

Patients diagnosed by doctor to have R.A. and should have been under treatment for R.A. at least 6 months. All the patients were I generation RA Patients. Age range of subjects was between 20-80 years

**Exclusion Criteria**

Person suffering from any other chronic disease was excluded from the sample.

**Tools**

**Psychological Afflictions Scale**

Psychological Afflictions were measured by 4 different scales: (1) Egotism Scale, (2) Attachment Scale, (3) Anger Scale and (4) Greediness Scale called by author "Know Yourself Part I, II, III, IV".

**"Know Yourself (Part-I)" Egotism Scale by Das and Sisodia, (2011)**

**Description**

The scale has 30 items that are related to Egotism. The answers are to be given the form of Always/Often/Sometimes/Never. The score range is from 0 to 90.

**Reliability**

Item analysis was done to establish internal consistency to the egotism scale. Item with low coefficient of correlation ( $r=.10$  or less) were discarded and finally 30 items with  $r = .11$  to  $.75$  were retained. Tests retest reliability of the scale (with time gape of 4 months) came out to be  $.55$ .

**Validity**

Egotism scores of teachers were correlated with students' ratings of their teacher's egotism. The coefficient of correlation was found to be  $r = .65$  showing high criterion validity.

**"Know Yourself (Part-II)" Attachment Scale by Das and Sharma, (2012)**

**Description**

The scale has 21 items that are related to attachment. The answers are to be given the form of Strongly Agree/Can't Say/ Disagree/Strongly Disagree. The score range is from 0 to 63. Split Half Reliability (Odd-Even Method) of the scale is  $.697$ .

**"Know Yourself (Part-III)" Anger Scale by Das and Sharma, (2012)**

**Description**

The scale has 34 items that are related to Anger. The answers are to be given the form of Never/Very Little/Many Times/Always. The score range is from 0 to 90. Reliability: Test Retest Reliability Coefficient of the scale (with a time gap of 25 days) is  $0.86$ .

**Validity**

The construct validity was found to be  $.65$ .

**"Know Yourself (Part-IV)" Greediness Scale by Das and Sharma, (2013)**

**Description**

The scale has 34 items that are related to Greed. The answers are to be given in the form of

Never/Very Little/Many Times/Always. The scores range from 0 to 102. Split Half Reliability (Odd-Even Method) of the scale is  $.786$ .

**Life Style Scale**

Life style scale was prepared by Das and Chaudhary, 2010. It consisted of 50 items with maximum score of 150 and minimum score was 50. It consisted of 5 sections. In present research investigator will use its 4 sections only, which are as follows:

**Food Intake Behavior**

It has total 12 items, each item has 3 types of responses: always, occasionally and never. Test-retest reliability of this section was  $.99$  and internal consistency is  $.83$ .

**Physical Activity**

This section has 10 items. Each item can be responded in terms of any one the types of timing, which were scored as 1, 2, and 3. Test-retest reliability was  $.99$  and internal consistency was  $.71$ .

**Sleeping Behavior**

It has 10 items. Each item has 3 types of response: always, occasionally and never which were scored as 1, 2 and 3. Test- Retest reliability was  $.98$  and internal consistency was  $.71$ .

**Spiritual Behavior**

It also had 10 items. Each item has 3 type of response: always, occasionally and never, which were scored as 3, 2 and 1. Test- Retest reliability was  $.69$  and internal consistency was  $.72$ .

**Psychosocial Stressor Questionnaire**

ICMR Psychosocial Stressor questionnaire of stress by Srivastav (1992) was used to measure the stress. The questionnaire altogether consisted of 40 items. It represents seven categories of social-situations of stress.

**Reliability**

Cronbach-Alpha Reliability of the measure of stress was ( $r = .88$ ,  $N = 157$ ) and Split-half (odd-even) reliability is  $.88$  ( $N = 157$ ).

**Validity**

Validity of the stress questionnaire was estimated by examining correlation between stress-score and the scores on the measures of various psychological and somatic reactions to felt stress, such as unhealthy or emotional coping neuroticism, behavioral pathologies, and somatic diseases. The analyses revealed manifestations of experienced stress, indicating high validity of the present measures of stress. The following Table records the obtained coefficients of correlation.

**Correlation between Psychosocial Stress and Its Outcome**

Reactions to Experienced - Stress	r (N=157)
Unhealthy or emotional coping style	.32*
Neuroticism	.38*
Behavioral Pathologies	.41*
Somatic Diseases	.40*

\* $p < .01$

**Research Design**

Double Matched Group Design

## Results

Descriptive Statistics of the raw scores show that data is normally distributed as the Mean, Median and Mode are coinciding at the same point. So t test is applied to test the significance of the difference between the Psychological Afflictions of RA patients and normal adults, difference between the Psychosocial Stressor of RA patients and normal adults and the difference between the Life-Style of RA patients and normal adults.

It is shown in Table 2 that *t* value for all Psychological Afflictions is significant at .01 level. The mean value of egotism of RA patients is 45.5 and that of normal adults is 30.4, indicating that RA patients have significantly higher egotism ( $t = 5.43$   $p < .01$ ). RA Patients were also found to have higher mean attachment ( $M = 40.65$ ) in comparison to that of normal adults ( $M = 24.25$ ). This indicates that RA Patients have significantly greater attachment to worldly objects and fellowmen. RA patients were also found to have more anger ( $M = 33.4$ ) in comparison to that of normal adults ( $M = 19.25$ ). The mental affliction of greed was found to be significantly higher among RA patients ( $M = 31.43$ ) in comparison to that of normal adults ( $M = 19.08$ ).

It shows that the Psychological Afflictions of RA patients are significantly higher than those of normal adults. Hence, The hypothesis that "*There is a significant difference in psychological afflictions (Egotism, Attachment, Anger and Greediness) between rheumatoid arthritis patients and normal adults*" is therefore accepted.

Table 3 indicates that Psychosocial Stressors are higher for RA patients in comparison to normal adults, the *t* value ( $t = 2.23$ ) being significant at .05 level. It shows that RA patients have significantly higher Psychosocial Stressor in comparison to normal adults. Hence, the hypothesis that "*There is a significant difference in Psychosocial Stressors between rheumatoid arthritis patients and normal adults*" is accepted though the difference is significant only at .05 level.

It is shown in Table 4 there is a significant difference in mean Life Style scores of RA patients and normal adults ( $p < .01$ ), normal persons having better life style in comparison to RA patients. In Food intake behavior, Physical activities and Sleeping Behavior, RA patients have significantly lower scores than normal adults. However no significant difference was found in Spiritual behaviour between RA patients and normal adults.

## Findings & Discussion

**The level of psychological afflictions (Egotism, Attachment, Anger and Greediness) is higher among rheumatoid arthritis patients in comparison to those of normal adults.**

The present findings indicate that RA patients suffer from the mental afflictions of egotism, attachment, anger and greed. According to Smith & Zautra, (2002), "Psychological afflictions (egotism, attachment, anger and greed) make an individual get trapped in net created by one's own self. These are

also called Negative Emotions which may increase arthritis disease activity".

Moos and Solomon (1965) studied Personality correlates of the degree of functional incapacity of patients with physical disease in which they found that patients with greater functional incapacity scored significantly higher on scales reflecting general 'neurotic' symptoms such as ego strength and isolation from self and others. This study is in support with present research finding. Higher scores on Egotism indicates an inflated opinion of one's self and his importance. High Egotism makes a person perceive himself to be superior to others which ultimately gives him frustration. So Egotism disturbs the immune systems causing a person to develop auto immune disease like RA. Significantly higher egotism among RA patients, in the present study therefore supports this viewpoint. In order to remain free from RA, people are suggested to remain free from Egotism.

The results that RA Patients have higher scores on attachment scale are in agreement with previous researches. McWilliams, Cox Brian and Murray (2000) studied Impact of Adult Attachment Styles on Pain and Disability associated with Arthritis. In their results ratings of insecure attachment were positively and significantly correlated with both pain and disability. A multiple regression analysis revealed that pain severity and the rating of anxious attachment could account for 20.3% of the variance in disability. RA patients have higher attachment in comparison to normal persons. Attachment is a selfish bondage which is based on expectations. It can only bring misery and is a great source of stress, Due to ignorance people are attached to objects or persons and feel pain when they lose them. RA has been found more among those who are highly attached to worldly objects or persons. When a Person is attached to an object on another, he will pain when he will lose it.

Results also indicate higher anger among arthritis patients in comparison to normals. Persons with anger have strong intentions to cause harm or injury to others, whether physical or verbal. Anger destroys reasoning capacity and destroys both mind and body. The autonomic nervous system, endocrine system and immune system get disturbed during anger and it can take the form of bodily diseases. In the present study RA patients have been found to have significantly higher anger in comparison to normals. This result is supported by the findings of Young (2010) that anger is one of the most common factors in developing Rheumatoid Arthritis. Her findings indicate that anger suppression among females is a cause of Rheumatoid Arthritis. Rimon (1973) had studied rheumatoid factor and aggression dynamics in female patients with rheumatoid arthritis. In their results they have discussed the possibility of two kinds of life stress and aggression dynamics profiles correlating with the presence or absence of rheumatoid factor is discussed that affects the immunity.

# Asian Resonance

Greediness has also been found to be significantly higher in RA patients as compared to normal individuals ( $p < .01$ ). Greedy person do not want to share the object of their interest with others. It occurs due to attachment to materialistic objects. Greedy persons want to preserve objects, but materialistic objects are doomed to decay. Greedy person tries to deprive others of their means of survival or comfort. This creates disturbances in mind as well as body leading to illnesses like RA.

**The level of Psychosocial Stressors among rheumatoid arthritis patients is higher in comparison to normal adults.**

In Modern world, one finds stress everywhere, whether it be within the family, business organization or any other social or economic activity. Results indicated that RA patients have more Stress in comparison to normal adults. Stress leads to the Improper functioning of immune system which in turn creates autoimmune diseases like Rheumatoid Arthritis. Previous researches are found to be in agreement with present research findings.

Walker, Littlejohn and McMurry (1999) who studied Stress system response and rheumatoid arthritis: indicate that the stress system, and its interactions with the immune system, plays a pivotal role in the etiology and progression of rheumatoid arthritis (RA).

**The life style (Food intake behavior, Physical activities and Sleeping Behavior) of rheumatoid arthritis patients ) is less healthier in comparison to that of normal adults.**

Results indicated, Normal Person have higher mean scores in food intake behavior than RA patients ( $t = 6.99, p < .01$ ). Normal Persons have been found to have more healthy food intake behavior. Healthy food intake behavior is related to health in terms of promoting good health and managing illness. According to Ayurveda, over eating and consumption of oily, spicy food (Rajasi) is related to the occurrence of rheumatoid arthritis.

**Tables**

**Table -1  
Socio-Demographic Profile of Sample**

Socio-demographic Profile of Sample	Rheumatoid Arthritis			Normal Adults			Grand Total	
	Male	Female	Total	Male	Female	Total		
Age Range	20-40	4	4	8	4	4	8	16
	41-60	9	9	18	9	9	18	36
	61-80	7	7	14	7	7	14	28
<b>Total</b>		20	20	<b>40</b>	20	20	<b>40</b>	<b>80</b>
Education Qualification	12 <sup>th</sup> class	7	7	14	7	7	14	28
	Graduate	10	10	20	10	10	20	40
	Post Graduate	3	3	6	3	3	6	12
<b>Total</b>		20	20	<b>40</b>	20	20	<b>40</b>	<b>80</b>
Family Income Per Month in Rs.	30,000 - 60,000	10	10	20	10	10	20	40
	60,000 - 90,000	10	10	20	10	10	20	40
<b>Total</b>		20	20	<b>40</b>	20	20	<b>40</b>	<b>80</b>

Results have also indicated that Normal Adults have more healthy. Sleeping behavior (M= 15.43) in comparison to the sleeping behavior of RA Patients (M= 13.5). The difference is significant at .01 ( $t = 3.45, p < .01$ ). Drewes, Savendsen and Hasen (1988) investigated sleep in patients with rheumatoid arthritis; and made a comparison with healthy subjects. Sleep complaints are frequent in patients with rheumatoid arthritis.

Present findings indicated that RA Patients have significantly lower mean scores on physical activity between the t value of 7.25 is significant at .01 level. Exercise not onl improves physical health it also improves mental health; helps prevent stress, and maintain positive self-esteem. Minor, Hewett and Webel (1988) studied Exercise tolerance and disease related measures in patients with rheumatoid arthritis and osteoarthritis.

**There is no significant difference in Spiritual Behavior of rheumatoid arthritis patients and normal adults.**

In present research, no significant differences was found in spiritual activities of RA Patients and Normal adults ( $t = .03, p > .05$ ). Not much scientific research has been done on the effect of spiritual behavior on Rheumatoid Arthritis. Wachholtz, Pearce and Koenig (2007), explored the relationship between spirituality, coping and pain. Further research is needed to explore this area.

**Conclusion**

It is concluded that Rheumatoid Arthritis (RA) Patients have significantly greater afflictions of mind and are lower on life style measures of behavior, in comparison to normal adults. Thus control on mental afflictions leads to better bodily health. At the same time healthy life style helps in controlling mind and brain and in improving immune system with the help of brain activities. This proves that importance of Psychological Afflictions, Life Style and Psychosocial Stressors among Rheumatoid Arthritis Patients.

**Table- 2**  
**Difference in Psychological Afflictions of Rheumatoid Arthritis Patients and Normal Adults**

Psychological Afflictions	Groups	N	Mean	SD	t	Degree of Freedom	Significance Level
Egotism	RA Patients	40	45.5	13.56	5.43**	78	p<0.01
	Normal Adults	40	30.4	11.21			
Attachment	RA Patients	40	40.65	9.47	8.78**	78	p<0.01
	Normal Adults	40	24.25	7.06			
Anger	RA Patients	40	33.4	9.86	8.02**	78	p<0.01
	Normal Adults	40	19.25	5.22			
Greed	RA Patients	40	31.43	8.13	8.49**	78	p<0.01
	Normal Adults	40	19.08	4.29			

**Table -3**  
**t test for Psycho Social Stressor among Rheumatoid Arthritis Patients and Normal Adults**

Psychosocial Stressors	Groups	N	Mean	SD	t	Degree of Freedom	Significance Level
	RA Patients	40	43.88	17.37	2.23*	78	p<0.05
	Normal Adults	40	36.38	12.23			

**Table- 4**  
**t test for Life-Style among Rheumatoid Arthritis Patients and Normal Adults**

Life Style	Groups	N	Mean	SD	t	Degree of Freedom	Significance Level
Food Intake Behaviour	RA Patients	40	18.8	4.15	-6.99**	78	p<0.01
	Normal Adults	40	27.8	6.99			
Physical Activities Behaviour	RA Patients	40	10.38	2.35	-7.25**	78	p<0.01
	Normal Adults	40	18.4	6.59			
Sleeping Behaviour	RA Patients	40	13.5	2.26	-3.45**	78	p<0.01
	Normal Adults	40	15.43	2.71			
Spiritual Behaviour	RA Patients	40	16.7	3.51	0.03	78	p>0.05
	Normal Adults	40	16.68	3.16			

## References

- Anderson, K. O., Bradley, L. A., Young, L. D., McDaniel, L. K., & Wise, C. M. (1985). Rheumatoid arthritis: Review of psychological factors related to etiology, effects, and treatment. *Psychological Bulletin*, 98, 358 – 387.
- Bartlett, S. J., Piedmont, R. & Matsumoto, A. K. (2003). Spirituality, well-being, and quality of life in people with rheumatoid arthritis. *Arthritis and Rheumatism*, 49 (6), 778-783.
- Das, I. & Agarwal, P. (2012). Psychological stress and sedentary life style as function of arthritis, Dayalbagh Educational Institute (Deemed University), Dayalbagh, Agra (Unpublished work).
- Das, I. & Chaudhary, S. (2012). Role of personality and life satisfaction: a comparative study of diabetics and non diabetics, Dayalbagh Educational Institute (Deemed University), Dayalbagh, Agra (Unpublished work).
- Das, I. & Sharma, A. (2012). A study of relation between egotism and attachment among married and unmarried women, Dayalbagh Educational Institute (Deemed University), Dayalbagh, Agra (Unpublished work).
- Das, I. & Sharma, S. (2012). Know yourself (part II) attachment scale, Dayalbagh Educational Institute (Deemed University), Dayalbagh, Agra (Unpublished work).
- Das, I. & Sharma, S. (2012). Know yourself (part III) anger scale, Dayalbagh Educational Institute (Deemed University), Dayalbagh, Agra (Unpublished work).
- Das, I. & Sisodia, S. (2013). Construction of a scale for measuring egotism (Ahamkar). In *Ilokayata? Journal of Positive Philosophy* (ISSN 2249-8389), 11 (10), 87-95.
- Das, I., Agarwal, S. & Sharma, S. (2012). Comparative study of N-Agression, N-Dominance and life style of diabetics and non diabetics, Dayalbagh Educational Institute (Deemed University), Dayalbagh, Agra (Unpublished work).
- Dougall, A. L. & Baum, A. (2001). Stress, health, and illness. In A. Baum, T.A. Revenson, & J.E. Singer (Eds.), *Handbook of Health Psychology* (pp. 321-337). Mahwah, N. J.: Erlbaum.
- Drewes, A. M., Savendsen, L. & Hasen, B. (1988). A sleep as in rheumatoid arthritis: a comparison with healthy subjects and study of sleep/wake interaction. *British Journal of Rheumatology*, 37 (1), 71-81.
- Fauci, A. S., Braunwald, E., Kasper, D. L., Jameson, L. J. & Loscalozo, J. (2008). *Harrison's Principles of International Medicine*, 17<sup>th</sup> ed, vol II. New York: Mc Graw Hill, 2083-2092.
- Fauci, A. S., Braunwald, E., Kasper, D. L., Jameson, L. J. & Loscalozo, J. (2008). *Harrison's principles of international medicine*, 15<sup>th</sup> ed, vol II. New York: Mc Graw Hill, 1928-1931.

14. Faults That Lead to Bondage > 5 Vikar (Faults of Mind). Retrieved from <http://satgur.net/Topic/Details/126> on 25 August 2013.
15. Gower T., *Could there be a link between always losing your keys and rheumatoid arthritis? Perhaps, researchers say.* Retrieved from <http://www.arthritistoday.org/about-arthritis/types-of-arthritis/rheumatoid-arthritis/what-to-expect/effects-on-body-and-health/ra-and-brain-fog.php> on 16 July 2014
16. Hamilton, N. A., Affleck, G., Tennen, H., Karlson, C., Luxton, D., et. al. (2008). Fibromyalgia : The role of sleep in affect and in negative event reactivity and recovery. *Health Psychology, 27*, 490-494.
17. Harrington, L., Affleck, G., Vrows, S., Tennen, H., Higgins, P., Zaytra, A., et. al. (1993). Temporal covariation of soluble interleukin – 2 receptor levels, daily Stress, and disease activity in rheumatoid arthritis. *Arthritis and Rheumatism, 36*, 199-207.
18. Khatoun, N. (2012). *Health Psychology*. New Delhi: Pearsons.
19. McWilliams, L. A., Cox Brian J., & Murray, W. (2000). Impact of adult attachment styles on pain and disability associated with rheumatoid in a nationally representative sample. *The Clinical Journal of Pain, 16* (4), 360-364.
20. McWilliams, L. A., Cox Brian J., & Murray, W. (2000). Impact of adult attachment styles on pain and disability associated with rheumatoid in a nationally representative sample. *The Clinical Journal of Pain, 16* (4), 360-364.
21. Minor, M. A., Hewett, J. E. & Webel, R. R. (1988). Exercise tolerance and disease related measures in patients with rheumatoid arthritis and osteoarthritis. *Journal of Rheumatology, 15* (6), 905-911.
22. Moos, R. H. & Solomon, G. F. (1965). Personality correlates of degree of functional incapacity of patients with rheumatoid arthritis. *Journal of Chronic Disease, 18* (10), 1019-1038.
23. Reyes, A. (1999, April). *Striking a health dietary balance for the elderly*. The university record, p. 24.
24. Rimon, R. (1973). Rheumatoid factor and aggression dynamics in female patients with rheumatoid arthritis. *Scandinavian Journal of Rheumatology, 2* (3), 119-155.
25. Sarafino, E. P. & Smith, T. W., (2011). *Health Psychology Biopsychosocial Interactions*. John wiley & sons: New Delhi.
26. Shifren, K., Park, D. C., Bennett, J. M., & Morrell, R.W. (1999). Do cognitive processes predict mental health in individuals with rheumatoid arthritis?. *Journal of Behavioral Medicine, 22*, 529-547.
27. Smith, B. W., & Zautra, A. J. (2002). The role of personality in exposure and reactivity to interpersonal stress in reaction to arthritis disease activity and negative effects in women. *Health Psychology, 21*, 1101-1106.
28. Srivastava, A. k. (1992). ICMR Psychosocial Stressor Questionnaire. Indian Council of Medical Research, New Delhi.
29. Straub, R. O. (2001). *Health Psychology*. New York: Worth Publishers.
30. Taylor, S. E. (2006). *Health Psychology, 6<sup>th</sup>* edition. New Delhi: McGraw Hill.
31. Timko, C., Baumgartner, M., Moos, R.H., & Miller, J. J., III. (1993). Parental risk and resistance factors among children with juvenile rheumatic disease: A four year Predictive study. *Journal of Behavioral Medicine, 16*, 517-589.
32. Van Lankveld, W., Naring, G., Vanderstaak, C., Van't Pad Bosch, P. & Vande Putte, L. (1993). Stress caused by rheumatoid arthritis: Relation among subjective stressor of the disease, disease status, and well – being. *Journal of Behavioral Medicine, 22*, 529-547.
33. Verbrugge, L. M. (1995). Women, men, and osteoarthritis. *Arthritis Care and Research, 8*, 212-220.
34. Wachholtz, A. B., Pearce, M. J. & Koenig, H., (2007). The relationship between spirituality, coping and pain. *Journal of Behavioral Medicine, 30* (4), 311-318.
35. Walker, J. G., Little John, G.O. & McMurry, N. E. (1999). Stress system response and rheumatoid arthritis. *Rheumatology, 38* (11), 1050-1057.
36. Young K., *Rheumatoid Arthritis Anger: Cause or effect?* Retrieved from <http://rawarrior.com/rheumatoid-arthritis-anger/> on 16 July 2014
37. Young, L. D. (1992). A review and discussion of recent developments in psychological research related to rheumatoid arthritis. *Journal of Consult Clinical Psychology, 60* (4), 619-27.
38. Zautra, A. J. & Smith, B. W. (2001). Depression and reactivity to stress in order women with rheumatoid arthritis and osteoarthritis. *Psychosomatic Medicine, 63*, 687-696.