



Comparative Study of Early Maladaptive Schemas in Rheumatoid Arthritis Patients and Normal Adults

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Abstract - *Early maladaptive schemas (EMSs) designed to assess early distress. EMSs are at the core of personality pathology and psychological distress. The main objective of this study was to find out the differences between rheumatoid arthritis (RA) patients and normal adults on EMSs. 100 RA patients and 100 normal adults completed Young's Schema Questionnaire developed by Jeffery Young (1998). The results showed that data was subjected to statistical analysis; T- test showed that the RA patients reported a significantly greater severity of early maladaptive schemata than the normal subjects. This study suggested that a remarkable amount of RA patients may suffer from EMSs which have an effect on their pain situation. These findings confirm those pieces of evidence indicating the psychological treatments included in multidisciplinary programs for this disorder.*

Key Words - *EMSs; psychological; T-Test.*

1 Introduction

Rheumatoid arthritis (RA) is a chronic, painful, and debilitating musculoskeletal illness, which often leads to high levels of disability, destruction and handicap even early in the course of the illness (Carr, 1996). The bio-psycho-social model of illness highlights the importance of biological, psychological and environmental contributions to the etiology and treatment of all illness (Engel, 1977). Although there is a large amount of evidence pointing to the biological factors associated with chronic pain, there is a growing body of evidence of psychological and social factors affecting the course and outcome of pain (Gatchel, Polatin, & Mayer, 1995; Linton, 1997).

Childhood sexual, physical and emotional abuse and psychological and social adversities of childhood have been shown in numerous studies to be associated with chronic pain in adulthood (Imbierowicz & Egle, 2003; Spertus, Yehuda, Wong, Halligan, & Seremetis, 2003; Sansone, Pole, Dakroub, & Butler, 2006; Thomas, Moss-Morris, & Faquhar, 2006; Hu, Link, McNaughton-Collins, Barry, & McKinlay, 2007; Paras et al., 2009). The association of chronic pain and emotional maltreatment alone has been less studied.

Young, Klosko, and Weishaar (2003) recognized 18 Early Maladaptive Schemas (EMSs) that persons can develop and maintain. These 18 EMSs can be categorized into five different domains. Schema domains include disconnection and rejection, impaired autonomy and performance, impaired limits,

other directedness and over vigilance-inhibition. Each domain represents one important part of the core needs of the child. Many EMSs like mistrust/ abuse, abandonment/ instability or emotional deprivation reflect purely early emotional maltreatment, such as abandonment and neglect. Saariaho, Saariaho, Karila, and Joukamaa (2010) showed that from a total of 271 chronic pain patients 158 scored one or more early maladaptive schema as meaningful. The patients with meaningful EMSs had significantly higher pain intensity. According to above mentioned facts this study found that early maladaptive schema among those with rheumatoid arthritis is more than those without this illness.

This study not only can show the childhood experiences causing the chronic pain such as RA but also can help in identification of the psychological interventions with schema therapy approach. It seems that by psychological interventions and improving the cognitive functioning of the RA patients alongside with medical therapy we can have great influences on controlling the pain attacks and also can stop the negative side effects of this illness.

With regard to considering the important role of EMSs in pain and lack of research in this area, the purpose of this study was to compare the schemas of RA patients and normal adults. In particular, hypotheses were tested: RA patients compared with normal adults:

- H1: would differ significantly on Disconnection & Rejection
- H2: would differ significantly on other directness.
- H3: would differ significantly on over vigilance/ inhibition
- H4: would differ significantly on impaired limits
- H5: would differ significantly on Impaired Autonomy & performance

2 Method

2.1 Participants and procedure

The sample composed of 100 patients with RA (72 women and 28 men) and 100 normal adults (70 women and 30 men). These patients were recruited from an outpatient rheumatology clinic affiliated with Isfahan University of Medical Sciences. The age mean of patients was 40.68 ± 13.99 years. The mean length of total education in patients was 13.07 ± 2.72 years (range 9-18 years). Inclusion criteria were 1) receiving the diagnosis of RA by a rheumatologist 2) age 18-70 years old 3) being able to write and read 4) willingness to participate in the study. Patients were excluded if: 1) had dementia and mental retardation 2) had any serious medical or chronic illness. The normal adult group was simulated according to gender, age, and level of education. The study is done in two stages. In the first stage of the research the patients were visited by a rheumatologist and the diagnosis based on experimental criteria was established. In the second stage either of the groups was evaluated by a clinical psychologist. The assessment tools included a questionnaire and interviews confirm. The protocol of the study was approved by the "Regional bioethics committee".

2.2 Measures

Young Schema Questionnaire-Short Form 3 (YSQ-SF3) Based on the framework of schema therapy, the Young Schema Questionnaire (YSQ-SF3) was developed by Young, Klosko, and Weishaar (2003). The original scale has 18 subscales grouped into 5 schema domains as follows: disconnection and rejection (schemas of emotional deprivation (ED), abandonment (AB), mistrust/ abuse (MA), social isolation (SI), and defectiveness defectiveness/ Shame (DS)), impaired autonomy and performance

(schemas of failure (FA), dependence/ Incompetence (DI), vulnerability to harm (VH) and enmeshment/ undeveloped self (EM), impaired limits (schemas of entitlement/ grandiosity (ET) and insufficient self-control (IS)), other directedness (schemas of subjugation (SB), approval-seeking (AS), and self-sacrifice (SS)) and Over-vigilance and inhibition (schemas of emotional inhibition (EI), unrelenting standards (US), negativity/ pessimism (NP), and punitiveness (PU)). The questionnaire consists of 90 self-report items that are rated on a six-point Likert-type scale (1 = entirely untrue of me, 6 = describes me perfectly). As each subscale consists of five items, the score obtained on the subscales varies between 5 and 30.

Soygüt, Karaosmanoglu, and Cakir (2009) has shown good levels of validity and Reliability. The reliability and validity of the YSQ-SF extended in Iranian language has been established (Ahi & Mohammadi Far, 2007). In our study the Cronbach's alpha coefficients for the YSQ-SF3 subscales range between 0.74 and 0.90.

3 Results

3.1 Data analysis

For analyzing the statistical data the descriptive statistics (mean and standard deviation) and inferential statistics were used. Data were analyzed by the SPSS-18 program, and for interpretation of the research hypothesis the T-test was used.

Table 1: T-test for comparing the mean of types of schema domains between rheumatoid arthritis patients and normal adults

Schema Domains	Mean Difference	Std. Error Difference	df	T	P- Value
Disconnection and rejection	27.3	3.57	198	7.63	0.001
Impaired autonomy and performance	25.62	2.54	198	10.08	0.001
Impaired limits	4.37	1.40	198	3.12	0.002
Other directedness	10.32	2.02	198	5.10	0.001
Over-vigilance and inhibition	15.81	2.56	198	6.17	0.001

Table 2: T-test for comparing the mean of types of early maladaptive schemas between rheumatoid arthritis patients and normal adults

Schema Domains	Schema	t	Df	p- value
Disconnection and rejection	ED	7.42	198	0.001
	AB	7.18	198	0.001
	MA	3.63	198	0.001
	SI	5.31	198	0.001
	DS	7.84	198	0.001

Schema Domains	Schema	t	Df	p- value
Impaired autonomy and performance	FA	9.82	198	0.001
	DI	9.07	198	0.001
	VH	8.33	198	0.001
	EM	6.29	198	0.001
Impaired limits	ET	2.60	198	0.001
	IS	3.02	198	0.003
Other directedness	SB	6.16	198	0.001
	AS	2.03	198	0.04
	SS	4.68	198	0.001
Over-vigilance and inhibition	EI	8.43	198	0.001
	US	1.92	198	0.04
	NP	5.32	198	0.001
	PU	3.94	198	0.001

3.2 Findings

The purpose of this study was to evaluate and compare the EMSs in patients with rheumatoid arthritis and normal adults. Table 1 shows that in five domains of schemas there is a significant discrepancy between RA patients and normal adults. It means that RA patients have high mean in every five domains ($p < 0.05$). Also in this research EMSs have been studied in comparison with one on other. The table 2 shows that 18 early maladaptive schemas between RA patients and normal adults have significant difference ($p < 0.05$).

3.3 Discussion

Accumulating evidence indicates that individuals with RA have more psychological compliance than other populations. The purpose of this study was to compare the cognitive schemas between RA patients and normal adults.

The results showed that there is a significant difference among the mean of the schemas of all 5 domains among the two groups. It means that the mean of the schema domains (disconnection & rejection, over vigilance, inhibition, impaired autonomy & performance, impaired limits) in RA patients is significantly more than normal adults.

Acceptance of the hypotheses of this study shows that childhood maltreatment and adversity exist in RA patients. On the other hand according to figure 1 we can see that on all early maladaptive schemas, there is significance difference between two groups.

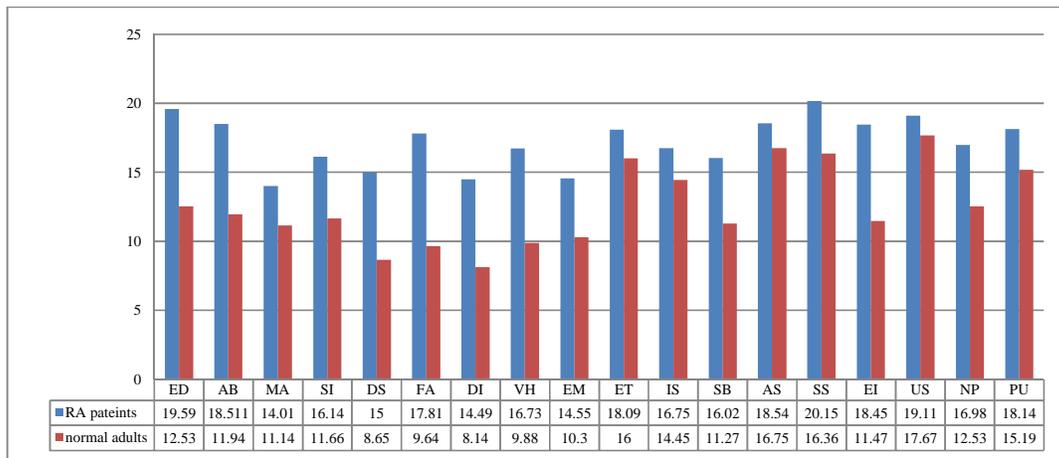


Fig.1: Distribution of early maladaptive schemas in RA patients and normal adults

Also the results showed that the self-sacrifice (SS) was the highest mean scored schema in RA patients. This finding is consistent with previous study (Saariaho, Saariaho, Karila, & Joukamaa, 2012) and emotional deprivation schema was second highest mean scored schema in RA patients in this study. SS schema is a belief that one should focus on others’ needs rather than one’s own (Young, Klosko,& Weishaar, 2003). Chronic pain patients with self-sacrifice schema had been work very long hours since childhood which had caused them to suffer pain and prevented them from recovering from pain and they hoped to be in less pain to return to the same work (Saariaho, Saariaho, Karila, & Joukamaa, 2012). Finally they become pain-exhausted, because only the maximum pain is able to stop them. Emotional deprivation schema is a common schema in psychosomatic disorders such as chronic pain. The patients with emotional deprivation schema do not express their feelings. Therefore patients with limited emotional awareness and verbalization ability may describe the physiological aspects of emotions in somatic terms, such as pain severity.

The third highest mean scored schema in this study was unrelenting standards/ hypercriticalness schema (US). People with this schema emphasize excessively on attaining very high internalized standards of behaviors or performances. They strive to reach these high standards to avoid criticism. US schema provokes pain problem, as the pain patients such as RA were extremely careful and conscientious in their work and ignored their bodies’ sensations or need for rehabilitation.

Individual with chronic pain do not only conclude themselves or the others but these schemas have emotional, behavioral and physiological features. It may be true about the chronic pain such as RA patients that many of them are involved in cognitive and affective avoidance. It is the cause of the problems. This avoidance pattern that is rooted in the early maladaptive schemas and their illness is a kind of instrumental response. Because by lowering the negative emotion the behavior improves. According to the findings of the research it is predictable that RA patients in comparison with the normal adults have more problems. These patients have problem in receiving the affection, creating a relationship with others, responsibility toward others, understanding the love and oneself and appearing of feelings. Furthermore, as there is more percentage of schemas in RA Patients it is possible to say that parents of RA patients have more problem than normal persons' parents. Thus schema therapy beside biological treatment can have a great influence on patients' improvement.

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