

Effect of Cognitive Behaviour Therapy and Relaxation Practices in Chronic Migraine Patients through Rorschach Inkblot Test

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Abstract: The present study attempts to examine the effect of cognitive behaviour therapy and relaxation practices on chronic migraine patients. Hundred thirty seven (137) patients were consisted for this study out of these 50 treated and 50 non-treated patients were evaluated at SIMPHS Varanasi (India). The two groups were matched on age range from 20 to 55 years with a mean age of 38.4 years and mean length of intolerable pain of 6.8 years. Rorschach Inkblot Test was administered to ascertain personality characteristics on twenty two selected responses viz: total responses, whole responses, obvious details, rare details, movement, color, color-form, form-color, vista, shading, affective ratio, human, human detail, anatomy, good form, animal, popular, lambda, white space, T/IR and rejection of cards. Mean scores obtained on different variables were analyzed using t-test of significance. Results indicated that the characteristics associated with treated chronic migraine patients were total responses, whole responses, obvious details, movement, affective ratio, human detail, good form, animal, popular, and lambda whereas the characteristics associated with non-treated chronic migraine patients rare details, csun, color, color-form, form-color, vista, shading, human, anatomy, white space, T/IR, and rejection of cards.

I. Introduction

M. G. Sharma, Asstt. Professor, Dept. of Psychology, Sri Agrasen Kanya P. G. College, Varanasi-221002(India) 09415448519,Email:gopal.simphs@gmail.com and **Vandana Sharma**, Ph.D. Psychologist, S.I.Mental & Physical Health Society (SIMPHS),Chandua Chhittupur,Varanasi-221002(India).08004314101.EMail:vns.simphs@gmail.com There are a number of studies have investigated the association between psychiatric disorders, particularly anxiety and mood disorders, and various headache forms. Scher, Bigal and Lipton. (2005) underlined that the frequency of depression and anxiety disorders in migraineurs is greater than that expected by a chance association. Lipton, Silberstein (1994), and Sheftell, Atlas (2002) reported in their that mechanisms linking psychiatric disorders to the natural history of migraine remain controversial. Genetic and/or environmental etiologies and psychological vulnerability have been proposed to be implicated in the psychological problems and psychiatric disorders of migraineurs. Depression is a frequent finding, especially in patients with frequent attacks (Breslau, Davis, Schultz and Peterson, 1994). Behavioral and somatic symptoms commonly observed in subjects with chronic headache are also found in patients with anxiety, mood, or somatoform disorders Mongini, Ibertis and Ferla (1994). There are, however, exceptions, at least for some disorders, singly depression, which seems to be more specifically linked to migraine (Breslau, Lipton, Stewart, Schultz and Welch 2003).

In a study of Blier and Abbott (2001) diagnosis of depression or anxiety carries an indication for treatment irrespective of the presence of migraine or other headache disorders. On the other hand, the presence of an abnormal psychological profile has less obvious clinical implications and is less easily detected. Few studies have investigated the association between different types of headache and personality profiles. The results have not fully clarified the clinical implications and significance of the relationship between headache and psychological characteristics. Huber and Henrich (2003) found in their study that migraine patients had higher neuroticism and introversion scores on the MMPI than the healthy subjects. Cao and coworkers (2002) found that patients with migraine as well as those with episodic and chronic tension type headache showed

traits of neuroticism-anxiety and depression, but that no abnormal personality traits were present in migraineurs with aura.

Mongini et al. (2000) applied the MMPI-2 tool to a relatively small number of patients and frequently found a conversion profile that became more pronounced or neurotic or emotionally overwhelmed with the evolution of an episodic into a chronic form of migraine. It remains to be determined whether such a personality style predisposes to chronic headache or merely reflects the stresses and difficulties associated with it. The same authors Mongini and colleagues (2003) examined the association between personality traits, depression, and migraine. The main results were that in women with migraine the co-occurrence of depression and personality changes did not appear to influence the short-term treatment outcome, but rather to affect headache history in the long term. The present prospective study of a subgroup of chronic headache patients without psychiatric disorders aimed at exploring the influence of personality profile on disease prognosis. Diagnosis of migraine was made according to the widely accepted International Headache Society criteria (1988) based on a validated semi-structured interview; only patients with full details for International Headache Society classification were included. The frequency of migraine attacks fifteen times in a month was used to define chronic migraine. Since at the time of our investigation the new International Headache Society classification (2004) was officially available, patients entirely fulfilling the new criteria for chronic migraine might have been included in our study. However, given the well-known difficulties in obtaining satisfactory patient's cooperation, we excluded all the subjects who overused their analgesics. We can therefore reasonably affirm that patients included in our study suffered from chronic migraine according to the new International Headache Society criteria. Moreover, the characteristics of most of our patients seem to fulfill the criteria for chronic migraine without aura as defined by the proposed revision of the International Headache Society classification (Manzoni, Lambru and Torelli, 2006).

In a population of migraine patients, behavioral disturbances were successfully managed, and anxiety symptoms remarkably reduced, using different psychological interventions (Fan and Zhou, 1999).

Jacobson relaxation techniques were developed by American physician Edmund Jacobson in the early 1920s. Jacobson (1938) argued that since muscle tension accompanies anxiety, one can reduce anxiety by learning how to relax the muscular tension.

The physical component involves the tensing and relaxing of muscle groups over the legs, abdomen, chest, arms and face. With the eyes closed and in a sequential pattern, a tension in a given muscle group is purposefully done for approximately 10 seconds and then released for 20 seconds before continuing with the next muscle group.

The mental component focuses on the difference between the feelings of the tension and relaxation. Because the eyes are closed, one is forced to concentrate on the sensation of tension and relaxation. In patients with anxiety, the mind often wanders with thoughts such as "I don't know if this will work" or "Am I feeling it yet." If such is the case, the patient is told to simply focus on the feelings of the tensed muscle. Because of the feelings of warmth and heaviness are felt in the relaxed muscle after it is tensed, a mental relaxation is felt as a result. With practice, the patient learns how to effectively relax and deter anxiety when it becomes at an unhealthy level where an anxiety attack would otherwise occur (Craske and Barlow, 2006).

Jacobson trained his patients to voluntarily relax certain muscles in their body in order to reduce anxiety symptoms. He also found that the relaxation procedure is effective against ulcers, insomnia, and hypertension. There are many parallels with autogenic training, which was developed independently. The technique has also proven effective in reducing acute

anxiety in people with Schizophrenia (Chen; Chu; Lu; Chou, Chen, Chang; O'Brien and Chou 2009).

Jacobson's Progressive Relaxation has remained popular with modern physical therapists.

Wolpe and Lazarus (1966) told that progressive relaxation involves alternately tensing and relaxing the muscles. A person using progressive muscle relaxation may start by sitting or lying down in a comfortable position. With the eyes closed, the muscles are tensed (10 seconds) and relaxed (20 seconds) sequentially through various parts of the body. The whole progressive muscle relaxation session takes approximately 30 minutes. As this is a technique, practice with progressive muscle relaxation does make perfect and will usually not work effectively as it should the first couple of times.

Patients with generalized anxiety disorder who first try progressive muscle relaxation with anxiety may become frustrated, feel rushed, or feel an increase in anxiety for various reasons such as being afraid to "let your guard down." As with doing anything new, this is to be expected and simply practiced again once or twice a day (Craske and Barlow 2006). So, the purpose of the present study was to see the management of chronic migraine patients by cognitive behaviour therapy and relaxation practices through Rorschach Test.

However, since the study was an observational investigation, we considered it ethical to treat patients with the potentially best therapy. The fact that, in spite of the use of an antidepressant drug, a high score of depression scale remained a predictor of unfavorable prognosis could, at least theoretically, enforce the concept that a personality trait oriented toward depression can negatively influence clinical course of patients with chronic migraine.

II. Materials and Method

This study was carried out at S.I. Mental and Physical Health Society (SIMPHS), Varanasi, India. The sample consisted of 50 treated and 50 non-treated chronic migraine patient between the age ranges 20 to 55 years with a mean age of 38.4 years. Both the groups were matched on socio-economic status. All the subjects had experienced for several years and were suffering from chronic migraine pain not less than fifteen times in a month. After individual counseling they attended to get cognitive behaviour therapy and relaxation practices each with 45-60 minutes for 6 months. Both therapy was administered 4 times weekly in first month, 3 times weekly in 2nd month, 2 times weekly in 3rd month, once weekly in 4th months, once in 10 days in 5th months and once in 2 weeks in 6th months.

III. Procedure

Both groups of subjects were consisted individually by the researcher of this study. After rapport establishment the Rorschach Inkblot Test was administered on the subject one by one at a time.

IV. Tools

Rorschach Inkblot Test consisting of the standard 10 Inkblots was administered to identify the specific pathology of projective responses. The scoring for this test was used (Beck, Beck, Levit & Malish, 1961).

V. Statistical Analysis

The data thus obtained were analyzed using Mean, S.D. and 't' - test.

VI. Results and Discussion

An attempt was made to compare mean scores of treated and non-treated chronic migraine patients on Rorschach Indices using 't'-test of significance. Results are given in below table.

Table Comparison of Treated and Non--treated Chronic Migraine Patients on Rorschach Indices.

Rorschach Indices	Treated Chronic Migraine Patients		Non-treated Chronic Migraine Patients		't'- value	df.	p
	M	SD	M	SD			
Total Responses (R)	22.01	6.23	18.79	5.36	2.64	98	.01
Whole Responses (W)	13.37	5.02	11.02	4.06	2.54	98	.05
Obvious Details (D)	74.83	7.99	69.85	12.65	2.78	98	.01
Rare Details (Dd)	8.79	1.27	12.34	3.09	7.71	98	.01
Movement (M)	7.01	6.96	4.01	5.97	2.36	98	.05
Csum	5.02	2.11	9.63	7.07	4.47	98	.01
Color (C)	1.01	2.98	3.99	1.68	6.34	98	.01
Color-Form (CF)	2.00	1.07	3.12	1.26	5.09	98	.01
Form-Color (FC)	1.98	2.09	3.59	2.07	3.85	98	.01
Vista (V)	2.32	2.02	3.05	1.08	2.35	98	.05
Shading (Y)	3.51	2.38	4.12	2.10	1.27	98	NS
Texture (T)	00	00	00	00	00	98	00
Affective Ratio (Afr)	3.19	1.12	2.08	1.08	7.4	98	.01
Human (H)	13.92	6.13	10.01	5.21	3.46	98	.01
Human Detail (Hd)	2.48	2.31	3.89	1.88	3.43	98	.01
Anatomy (At)	3.97	2.13	4.99	1.89	2.55	98	.05
Good Form (F+ %)	44.85	11.04	31.87	13.00	5.38	98	.01
Animal (%)	51.00	13.92	42.16	15.16	3.04	98	.01
Popular (P)	12.86	4.21	9.54	3.01	4.54	98	.01
Lambda (L)	21.97	4.75	17.91	3.61	4.83	98	.01
White Space (S %)	2.03	0.99	2.89	1.02	5.05	98	.01
T/IR	298.12	86.72	268.85	92.25	1.63	98	N S
Rejection of Cards	1.17	2.31	3.00	2.01	4.35	98	.01

The above Table compares the treated and non-treated chronic migraine patients on Rorschach indices. It was found that the two groups differ significantly on total responses, whole responses, obvious details, rare details, movement, color, color-form, form-color, vista, affective ratio, human, human detail, anatomy, good form, animal, popular, lambda, white space, T/IR and rejection of cards. The treated chronic migraine patients obtained higher mean scores on total responses, whole responses, obvious details, movement, affective ratio, human detail, good form, animal, popular, and lambda and lower on obvious details, csum, color, color-form, form-color, vista, human, anatomy, white space, T/IR and rejection of cards. The non treated chronic migraine patients have higher shading.

Treated chronic migraine patients have significantly higher responses on T R it means total number of responses can be regarded as an important index in differentiating between the two groups. Total productivity on Rorschach is considered as an indicator of intellectual in maturity. The finding indicates that chronic migraine patients are intellectually mature in comparison to the non treated chronic migraine patients.

Treated group of chronic migraine patients had significantly higher score on W responses and also given greater frequency in cards I, IV, and VI this indicates this cards are more solid and represent the form of unbroken blots. This index on Rorschach is much important to discriminate between the two groups.

According to Rorschach (1942), obvious details indicate an ability to perceive and react to clear and distinct characteristics of world. It's easier to give than obvious detail responses because they represent the easiest perceptual cognitive mode to act when faced with ambiguity. High obvious detail responses show that treated chronic migraine patients were not in stress, anxiety, and maladjustment as compared to the non treated subjects and it was significantly difference between the two groups.

Rare Details are significance difference between the two groups. In the index study, the non treated chronic migraine patients had higher score on this index.

Human Movement responses have significantly higher scores on treated group of chronic migraine patients. There are a number of studies related to the human movement responses Beck (1944) reported that movement responses is the sign of awareness towards the external world and reflect some conflict or emotion, which do not gate obvious expression in the world of reality. Cooking, Dana and Dana (1969) found that movement responses are related with intellect, fantasies and time estimation. Singer, Meltzoff and Goldmann (1952) cited Rapaport's (1946) concept of fantasy as resulting from inhibition of action directed towards immediate need gratification.

Non treated group of chronic migraine patients have scored significantly higher on Colour responses. This response is one of the most responses on Rorschach test. Impulsivity in non treated group is one of the core diagnostic features, which is also revealed by Rorschach through higher colour determined responses. Rorschach (1942) reported that chromatic colour responses indicate affectivity or emotional excitability. Beck and Molish (1967) reported that csum, the csum of colour responses, is an index of affective energy available for responding to the environment. The manner in which this energy is expanded is a function of the total ego structure and of the inward balance afforded by movement. In healthy people, csum projects the energy and drive available for coping with adversities and in order to manipulate the environment, adjusts to change and react to stress. The lower csum is indicative of a more phlegmatic and rigid effort at coping with the demands of the environment. In non treated group of chronic migraine patients have colour responses that indicate impulsivity.

According to Beck et al., (1961) the determinants of variations in light (V, Y, and T) is found in three variations viz: vista, flat gray, and texture (V, Y, and T). Only vista indices was found significant difference, and flat gray and texture were not found significant difference between the two groups.

According to Beck and Molish (1967). Afr is an index of readiness to respond to the challenges of exciting events. The present study was found significant difference between experimental group and control group.

Animal Responses (A %) is the single major class of responses in Rorschach test. There are a number of researcher or behavioral scientist have reported in there study that A% is an index of stereotype and adaptability An excess of A% indicates construction and self-guarding. Low A% indicates the idiographic character of the person who perceives objects of the environment in his own peculiar way (Wedemeyer, 1954; Neff and Glasser, 1954). Beck and Molish (1967). Animal content in the index study is fount to be significant difference between treated chronic migraine

patients and non treated group of chronic migraine patients. Lower A% in control group reflects their tendency to perceive the objects in their own peculiar ways.

Non treated group of chronic migraine have significantly higher scores on Anatomical responses this indicates excess preoccupation with bodily concerns without any physiological illness. This type of people releases his emotions towards stress through these preoccupations. Philips and Smith (1953) reported that anatomical responses also indicate concern with destructive impulses. A popular response is also an important response these responses reflect the ability to participate in popular thinking within a specific culture or the conformity of the individual's thinking in a group. There are a number of researchers or behavioural scientists described the concept of popular as and evidence individual's popular thinking (Loosli Usteri,1938;Kerr,1934; Diethelm,1933; Plister,1925; Oberholzer,1931;Hertz,1946; and Piotrowski,1950). Treated group of chronic migraine patients have significantly higher scores on this responses this mean, non treated group of chronic migraine patients feel lack in group conformity in a particular culture.

Rejection is another important response on these indices Bohm (1958) reported that card rejection is the result of an inhibition of the flow of thoughts. It is only a shock phenomenon in most case and offered an index of neurosis. In present study, non treated group of migraine patients have significantly higher score on this indices as compared to the treated group of chronic migraine patients.

VII. Conclusion

The present finding of the study has shown on Rorschach indices that the characteristics associated with chronic migraine patients are total responses, whole responses, obvious responses, movement responses, affective ratio, human, good form, animal, popular, lambda and T/IR whereas characteristics associated with non-treated chronic migraine patients are rare details, csum, color, color-form, form-color, vista, shading, human details, anatomy and white space.

VIII. References

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