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Study On Effect Of Stress In Migraine: Effect Of Psychological Intervention

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Abstract - A sample of 200 participants (male = 108 and female = 92) was selected for the present study. All the participants were diagnosed migraine patients. The sample was selected from the civil and private hospitals/clinics of Rohtak, Bhiwani, Hisar and Sirsa districts of Haryana. For the second phase of the study 60 patients were randomly assigned in three groups. Only those patients having at least two attacks in a fortnight period and scored three or more on a five point scale of perceived intensity of pain were selected for the intervention part of the study. All these 60 patients were randomly selected for the psychological intervention. Here, 20 patients were given Relaxation training alternatively for fifteen days and 20 patients were given EMG-biofeedback therapy in the same way. One control group of 20 patients was also selected to which no psychological intervention was given. All these 60 patients were taking medications during psychological interventions and there were about equal number of male and female patients in each group.

1. ***State-Trait Anger Expression Inventory-2 (Spielberger, 1988).***

2. ***Presumptive Stressful life Events Scale (PSLE Scale) (Singh, Kaur and Kaur, 1983).***

3. ***Perceived intensity of migraine pain and frequency of migraine attack scale.***

Key words: Patients, Relaxation, medications, psychological.

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INTRODUCTION

Headache is the most common complaints for which people see neurologists and physicians and it is the seventh most common reason they visit their primary care doctors. It has troubled mankind from the dawn of civilization. It is one of the most common symptoms in mankind. It is the third most common cause of missed work and it affects every area of a person's life. Many people who suffer from headaches either treat themselves or attempt to ignore their headaches. Headaches have an extraordinary impact and can seriously undermine the quality of life. For most of us, it is an infrequent and relatively minor inconvenience but for a substantial minority, recurrent or persistent headache is a serious disability and handicap. Some significant consequences occur for the wider community in terms of time lost from work and treatment costs due to headache. The headache disorder is mainly classified in two types- (i) primary headache disorders and (ii) secondary headache disorder. Primary headache disorders are again classified as migraine headache, tension-type headache and cluster headache. Migraine is a painful neurological condition and its symptoms are intense, throbbing and disabling episodic pain. Migraine headaches are usually characterized by severe pain on one or both sides of the head and the pain usually last from 4 to 72 hours duration and are often accompanied by hypersensitivity to light and sound and feelings of nausea. It is a condition that has always plagued the human race.

REVIEW OF LITERATURE

Migraine is one of the most prevalent disorders seen in clinical practice today, affecting nearly 28 million people in American country. It is also a major cause of disability in the workplace and it leads to indirect costs to society greater than 13 billion dollars a year. The prevalence of migraine is highest during the years of peak productivity, i.e., between the ages of 25 and 55 years (Nissan and Diamond, 2005). European and American studies indicate that 6-8% of men and 15-18% of women experience migraine each year (Blanda and Wright, 2006). It is less prevalent but still common in Asia (3% of men and 10% of women) (Scher, 1999). Thus from all this discussion we can realize that migraine is a major problem and it affects people in every walk of their life. Several kind of physiological or neurological causes play an important role in migraine. But there

are several evidence which suggested that along physiological factors several kinds of psychological factors, which are also responsible in the causation in migraine headache. Among other things, stress and anger expression play an important role in the causation of migraine. Life is full of stress and different stressors of life may lead to migraine. These include marital and family status, education and occupational stress, outside interests, friendships and major life changes, such as marriage, divorce, separation, a new job, retirement or a birth or death in the family. Employment provides many stressors. All these are stressors of daily life may induce headache. Similarly a person's expression of anger also plays an important role in migraine. Whether a person expresses his/her anger outwardly or suppress this anger. It also plays an important role in migraine. Thus migraine is a psycho physiological problem for which psychological help can also be provided along with pharmacological treatment. Having this view in mind psychological intervention in the form of relaxation training and EMG-biofeedback therapy was given to the patients. Therefore considering the importance of all these variables the present study was planned and designed.

MATERIAL AND Method

Design:

This investigation was planned to identify the role of stress and anger expression in migraine patients. This study was also aimed at assessing the effectiveness of Jacobson progressive muscular relaxation and EMG-biofeedback training in treating migraine. Perceived intensity of migraine pain and perceived frequency of migraine attack were the dependent variables representing migraine and the stressful life events consisting of five components (personal items, impersonal items, desirable items, undesirable items and ambiguous items) and anger expression scale consisting of four components (total anger expression, suppression of outward expression of anger, anger out and anger control), were the independent variables.

A sample of 200 participants (male = 108 and female = 92) was selected for the present study. All the participants were diagnosed migraine patients. The sample was selected from the civil and private hospitals/clinics of Rohtak, Bhiwani, Hisar and Sirsa districts of Haryana. For the second phase of the study 60 patients were randomly assigned in three groups. Only those patients having at least two attacks in a fortnight period and scored three or more on a five point scale of perceived intensity of pain were selected for the intervention part of the study. All these 60 patients were randomly selected for the psychological intervention. Here, 20 patients were given Relaxation training alternatively for fifteen days and 20 patients were given EMG-biofeedback therapy in the same way. One control group of 20 patients was also selected to which no psychological intervention was given. All these 60 patients were taking medications during psychological interventions and there were about equal number of male and female patients in each group.

Tool Used:

4. State-Trait Anger Expression Inventory-2 (Spielberger, 1988).

5. Presumptive Stressful life Events Scale (PSLE Scale) (Singh, Kaur and Kaur, 1983).

6. Perceived intensity of migraine pain and frequency of migraine attack scale.

The obtained data were analyzed by employing measures of central tendency and variability as descriptive statistics. Pearson coefficients of correlation and stepwise multiple regressions were also calculated. For the effect of psychological intervention, ANOVA suitable for multi-group designs with Duncan's post-hoc test was used. Paired sample t-test was also used for comparing the baseline scores on perceived intensity of pain and frequency of migraine attack and the retest scores after intervention in the form of JPMR, EMG-biofeedback and control group.

CONCLUSION

- Females were found to experience impersonal events, desirable and undesirable stressful events more than males. However, male and female participants did not differ in the experience of personal and ambiguous stressful life events.

- Females were found to have higher level of suppression of outward expression of anger i.e. anger-in than males as well as total anger expression. Male and female migraine patients were almost equal in case of outward expression of anger (anger-out) and control of outward expression of anger (anger-con).

- In case of total sample the results of anger expression indicated that total anger expression, suppression of outward expression of anger (anger-in) and outward expression of anger (anger-out) were significantly and positively correlated with perceived intensity of migraine pain. As far as perceived frequency is concerned total anger expression, suppression of outward expression of anger (anger-in) and outward expression of (anger-out) were also significantly and positively correlated with perceived frequency of migraine attack. However, control of outward expression of anger (anger-con) was not significantly and positively correlated with either perceived intensity of pain or perceived frequency of migraine attack. Rather it was negatively correlated with perceived intensity and frequency of migraine attack.

- For males, total anger expression, suppression of outward expression of anger and outward expression of anger were found to be positively and significantly correlated with perceived intensity of migraine pain. However, control of outward expression of anger was not found to be correlated with perceived intensity of migraine. Similarly as far as perceived frequency of migraine attack is concerned total anger expression, suppression of outward expression of anger and outward expression of anger were not positively and significantly correlated with perceived frequency of migraine attack in males.

- In case of females outward expression of stress was found to be positively and significantly correlated with perceived intensity of migraine pain in females. However, total anger expression and suppression of outward expression of anger were not found to be correlated with perceived intensity of migraine pain. As far as perceived frequency of migraine attack is concerned, total anger expression, Suppression of outward expression of anger (anger-in) and outward expression of anger correlated significantly and positively with perceived frequency of migraine attack. Here, also control of outward expression of anger was not found to be correlated with perceived frequency of migraine attack.

- Psychological intervention in the form of relaxation training and EMG-biofeedback found to be significantly and positively effective in migraine. However, no difference was found in the effectiveness of relaxation training and EMG-biofeedback training.

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