Summary

Epilepsy is considered as a chronic disorder and has been described as a tendency to recurrent seizures, usually defined by two or more unprovoked seizures (World Health Organisation, 2001). A seizure is a “clinical manifestation presumed to result from an abnormal and excessive discharge of a set of neurons in the brain” (Hopkins & Shorvon, 1987). So epilepsy is a disorder that comes in various forms and shows up as a fault somewhere in the complex electrical circuits of the brain & the nervous system. This minor fault results in the brain being unable to work properly for a brief period. Various symptoms depend on what part of the brain is affected. The nature of the disturbance can best be pictured as an electric type short-circuit that is brief & temporarily disturbs the normal brain activity. People with epilepsy are just like everybody else, except they sometimes have seizures.

Some studies show that malformation or degeneration of the brain, brain tumors, and metabolic (biochemical) disorders as a result of low blood glucose, low calcium or drugs, particularly alcohol lead to epilepsy. These and such other factors have been associated with epilepsy, as biological causes. Amongst the psychosocial factors are the occupational stress, economic status, type of family, emotional states, mental deficiency of various degrees, epileptic personality traits, (Bagadia, Jeste, Charegaonkar, Pradhan and Shah, 1973; Banerjee, 1985), anxiety, irritability, hostility, other psychiatric disturbances (Agnihotri, Teja, Prabhu and Virmani, 1972; Banerjee, 1985) and age, educational performance, etc. It has also been highlighted in the last chapters through various studies that the impact upon the psychosocial functioning of people with epilepsy are both medical and psychological.

Similar results in the field of anxiety were reported in the last chapter indicating that the fear of seizure overpowers the individual thought and leads to anxiety in the epileptic patients (Collings, 1990). The adverse effects of the medicine also carry the similar impact, leading to sleepiness and interfering with the daily routine. So, it is clear that there is an enormous negative impact of fits and medicines on the social and personal life. Even in treating absence epilepsy it is important to consider psychosocial aspects even if a medically satisfying result with seizure control is obtained (Olsson and Campenhausen, 1990). Therefore, it was thought worthwhile to study the psychosocial factors associated with seizures.
Further, it is clear that occurrence of seizure even at a low rate is associated with psychosocial handicap. (Konishi et al, 1992). Anderson et al (2000) have demonstrated a significant decrease in social and peer relationships, even in children with self reported good seizure control, when they take medicine in the school. Further epilepsy groups reported lower competence in terms of lower social competence and school achievement (Raty et al, 2003). All this indicates a poor QOL amongst such patients along with psychosocial problems.

During last few years, medical scientists have come to realize the importance of quality of life and its measurement (Horley, 2000). Many major as well as minor diseases are evaluated in terms of the degree to which they affect life quality and life expectancy (Koloski, Tally and Boyee, 2000). Epilepsy also has been associated with poor QOL. Hoare et al. (2000) reported that children with epilepsy had a poorer health related quality of life than children with diabetes. Children with more severe epilepsy are seen by parents to have a worse quality of life than children whose epilepsy is well controlled.

To conclude, a few studies mentioned with encouraging findings in the past from various corners of the world have shown the need to control the fit due to its negative impacts and accompanying psychosocial adjustment. The need of a treatment for the drug resistant patients which is all the more important, the stigma attached and the psychosocial causes underlying the disease have led the researcher to look into the following problem.

**Problem**

A study of psychosocial factors underlying epilepsy and the effect of modified version of Jacobson’s Progressive Muscle Relaxation on the subjective well being and seizures frequency of epileptic patients.

**Objectives:**

1. To study the psychosocial correlates of epilepsy.
2. To compare the psychosocial ratings of the epileptic patients having problem for 1-3 months and 2-4 years.
3. To investigate if JPMR improves the subjective well being in the epileptic subject.
4. To investigate if JPMR can reduce or check the epileptic fits in the epileptic patients.
Hypotheses

1. The patients suffering from epilepsy would exhibit higher level of psychosocial stress as compared to non-epileptics.
2. The psychosocial stress would reduce with an increased duration of epilepsy.
3. There would be a significant improvement in the SWB of epileptic patients when given relaxation.
4. There would be significant reduction in the seizure frequency before and after relaxation therapy.

Design

The study was conducted in two phases. For first phase, a multigroup design (having 3 groups) was employed, with two groups of the patients suffering from epilepsy for two different durations, and one control group comprising of the persons having no any other disease.

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
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<tbody>
<tr>
<td>Normal</td>
<td>1-3 months (epileptic patients)</td>
<td>2-4 years (epileptic patients)</td>
</tr>
<tr>
<td>n=100</td>
<td>n=100</td>
<td>n=100</td>
</tr>
</tbody>
</table>

N = 100

For second phase, a 3x2 pre-post factorial design (having 3 groups) was employed, with three to be given a modified version of Progressive Muscle Relaxation and 3 groups not to be given relaxation. Of these two groups belonged to the patients suffering from epilepsy for two different durations, and one group was of normal subject.

<table>
<thead>
<tr>
<th>JPMR</th>
<th>NO JPMR</th>
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<tr>
<td>25</td>
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Sample

Total Ss studied in this piece of research were 450. For first phase, a total of 300 subjects were selected. 200 subjects were medically diagnosed subjects, having epilepsy of any type e.g grand mal epilepsy, myoclonic epilepsy, grand tonic-clonic epilepsy...
epilepsy, temporal lobe epilepsy. Each group comprised of 100 patients. The duration of suffering varied for two groups. Group 1 had epilepsy for 1-3 months and Group-2 had epilepsy for 2-4 yrs. These Ss were selected on the basis of availability and readiness to participate in the study from PGIMS Rohtak, and other neurology clinics at Rohtak and various other places. Another group i.e Group-3 was a control group having 100 subjects.

For second phase, a total of 150 subjects were selected. 100 (diagnosed) subjects having epilepsy of any type e.g. drug resistant epilepsy, medically refractory epilepsy but having uncontrolled seizures. Each group comprised of 25 patients. The duration of suffering varied for two groups. Group 1 suffered for 6-18 months duration and Group-2 had epilepsy for 18-36 months. These Ss were selected on the basis of availability and readiness to participate in the study from AIIMS, Indian Epilepsy Centre, Stephen Hospital etc. Another group i.e. Group-3 was a control group having 50 subjects.

Measures

1. Sociodemographic Information.
7. Subjective well being Inventory by Sell and Nagpal, 1992.
8. A pre-record cassette of a modified version of JPMR by Prof. Promila Batra for relaxation therapy.

Procedure

Having selected the sample from PGIMS Rohtak, AIIMS, Indian Epilepsy Centre, Stephen Hospital Delhi etc, all the patients of epilepsy were contacted individually. A rapport was established and subjects were well apprised of the purpose of the study. Those who showed interest and were ready to co-operate were asked to give a written informed consent. Now they administered the tools i.e. Negative Affectivity, Perceived stress, Jenkins Activity Survey, Family Relationship and Subjective well being Inventory and A pre-record cassette of a modified version of JPMR. The scores were tabulated and put to analyses.
Statistical analyses

Multiple group analyses technique like one way and two way ANOVA/DRT were employed.

Results and Conclusion

The first hypothesis predicted that the patients suffering from epilepsy would exhibit higher level of psychosocial stress as compared to non-epileptics. The hypothesis has been proved. The epileptics have shown significantly higher negative affectivity, perceived stress, learned helplessness, lower Type A behavior, speed and impatience, job involvement and hard driving and competitiveness and an overall reduced SWB including a lowered SWB on all the components except for social support than the normal healthy controls. Regarding parenting, the parents of epileptics were found to be more of accepting kind. This and an insignificant difference in social support dimension are the positive findings. However, besides these, all other above mention psychosocial stresses had increased amongst the patients groups. These results show that there is a need to design the interventions that should reduce the stress and enhance well being amongst epileptic patients.

In second hypothesis, it was predicted that these psychosocial stresses would reduce with an increased duration of epilepsy. Results discussed earlier show that on Negative affectivity, Perceived stress and Learned helplessness the two epileptic groups with different duration did not differ from each other. Type A behavior, Speed and Impatience, Job involvement and Hard Driving and Competitiveness were significantly lower in 2-4 years group than 1-3 months duration group. Regarding parenting acceptance was significantly lower in higher duration group than low duration (although yet higher than normal Ss). For concentration and avoidance there was no significant difference amongst the two groups.

Next psychosocial stress variable was SWB. For total SWB the two epileptic groups did not differ. GWB+ve affect and Expectation achievement congruence were further significantly lowered in 2-4 years group. Confidence in coping remained the same. Transcendence and Family group concern were again lowered in 2-4 years. Social support, Primary group concern, Inadequate mental mastery and Perceived ill health did not differ in the two epileptic groups. Deficiency in social contact increased and GWB-ve affect remained the same. These results show that either there was no
difference in the two group or the stress had rather increased after 2-4 years. So the hypothesis has not proved.

The third and fourth hypotheses predicted that there would be a significant improvement in subjective well being and a significant reduction in seizure frequency of the epileptic patients both of these hypothesis also proved.

The subjective well being improved as a result of modified version of Jacobson's progressive muscle relaxation administration particularly in the following components of subjective well being – Confidence in coping, Family group concern, Inadequate mental mastery, Perceived ill health, Deficiency in social contacts. GWB – ve affects the results also showed that relaxation lead to a higher gain in high duration groups except for confidence in coping and perceived ill health. Regarding the duration dependent there was no any reduction in the psychosocial stress due to increased duration.

The next hypotheses predicted a reduction in the seizure frequency as a result of Jacobson’s progressive muscle relaxation administration. This hypothesis has also been proved. The reduction in the higher duration group was more than the lower duration group. To conclude, the findings of this study it is clear that epilepsy increases the psycho-social stress. These along with the frequency of epileptic fits can be reduced by using relaxation.