Analysis of Relaxation Effect on Life Quality of Migraine Patients

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Abstract: This study has been conducted in order to survey effects of relaxation on daily life quality of Migraine patients. The method applied for this study was semi-experimental and also clinical. We asked 28 migraine patients of Zahedan city to participate in our survey. We used random sampling method and divided patients into two groups. First group was the engaging group and the other one was the observing group. Then we organized a one week Relaxation training course for the engaging group. This course has been carried out in three sessions, each of them 2 h of class while the observing group received no training course. Thereafter, life quality of both groups are measured and compared with the early days of experiment, six weeks after the beginning of the experiments and finally twelve weeks after the initiation of the survey. The final phase of survey has been evaluated by life quality measuring questionnaires and SF36 has been extracted. Then for the last step, data are analyzed by SPSS. According to Independent t-test, average grade for life quality of both groups didn’t have a significant difference but after the survey (application of training for one of groups), we could see a significant difference. Also after analyzing Anova Test, we could see a significant difference in life quality average grade of each phase of survey. Relaxation training course was helpful for enhancing life quality of Migraine patients.

Key words: Life quality, migraine patient, relaxation, training

INTRODUCTION

Life quality is like a big umbrella which covers different factors. These factors affect people’s life and can form interpersonal interactions of people (King and Hinds, 1998). Life quality is a multi dimensional concept so; it must be analyzed from different angles (Cyprcar et al., 1994). One of these factors is chronic disease and among all various types of chronic disease, Migraine headaches are most common and according to their negative effects on people’s life quality through reducing their efficiency and perturbing their daily activities, are considered as two serious problems.

Migraine is a kind of Neurologic disorder which has a periodic cycle (in terms of reoccurrence) apart from any social, economical or racial limitations. It also has a remarkable negative effect on person’s social interactions, by making him more reserved or aggressive. Some studies have proven that life quality of a Migraine patient is affected even between two Migraine attacks (Schmid et al., 2001). Progressive muscular relaxation is a psychological intervention with a vast scope of application in researches. This type of intervention as a mean for behavioral intervention has an effective impact in pain killing. Learning, feeling and muscle tonus control are the basis of treatment by relaxation (Emery et al., 2008). According to the results of Bona Dona research, we could see a remarkable anxiety reduction after the application of this technique and finally experience of higher level of life quality for patients.

Regarding the efficiency, lack of any side effect and economically justifiable costs of these types of interventions, made them more popular these days. Therefore we intend to survey the impacts of progressive muscular relaxation as a mean for enhancement of life quality of Migraine patients.

METHODOLOGY

Current study is a semi-experimental and a clinical survey. The present study was carried out in April 2010 at the University of Zabol, Zabol, I.R. Iran. The sample space is made of 28 patients addressed to a nerve specialist in city of Zahedan by applying Facilitated Sampling technique. Patients were divided into two groups each of them consist of 14 members. One of them was observers and the other group was participants. Personal information questionnaire and life quality standard questionnaire (SF36) were our measuring tools. This questionnaire evaluates 8 factors related to the health in two major domains, first physical and second psychological. Physical factors are: physical performance, physical problems, physical pain and general health. While psychological factors are: social performance,
The methods presented by Cheung and members in 3 sessions each of them took 2 h following and time. Progressive muscular training was taught to the training courses held in research center in a specific days called all members of involved group to participate in involved groups. In the second phase of study, researcher Sampling procedure took 1.5 months and 28 eligible research and at the same time, introducing himself. A quality (SF36) questionnaire by mentioning his purpose researcher tries to fill the personal information and life months of intervention beginning. In the first phase, finally the last phase would be another survey after twelve phase is prior to intervention beginning. Second phase is testing in Britain by Bryzer and colleagues and its calculated correlation of Kronbakh was 0.85. This questionnaire has been used largely in Iran according to its scientific credibility. For example we can mention M.,r Dehdari’s calculation of this questionnaire correlation which it was 0.82 (Dehdari, 1381).

This intervention contains three main phases. First phase is prior to intervention beginning. Second phase is a survey after six months of intervention beginning and finally the last phase would be another survey after twelve months of intervention beginning. In the first phase, researcher tries to fill the personal information and life quality (SF36) questionnaires by mentioning his purpose of research and at the same time, introducing himself. Sampling procedure took 1.5 months and 28 eligible patients were studied during this survey. Then patients were divided into two groups randomly (observers and involved groups). In the second phase of study, researcher called all members of involved group to participate in training courses hold in research center in a specific days and time. Progressive muscle training was taught to the members in 3 cessions each of them took 2 h following the methods presented by Cheung et al. (2003). Films, speeches, training and bilateral debates were the instruments of training.

In order to achieve certainty, members were asked to describe instructed trainings, thereafter, researcher answered all their questions and misunderstandings. Then members were asked to listen to the instructing cassette tape and record their results of regular trainings for six consecutive weeks. During these six weeks, researcher was in contact with studied patients for any probable question or misconception. After six weeks both groups were asked to gather in research center in order to deliver their results report and also refill the life quality questionnaire. This process has been repeated after twelve weeks after the beginning of intervention, in order to observe the efficiency of constant trainings for the patients.

According to the primary preparation and well description of study purpose for the members by researcher and developing a close relationship with patients during the survey by researcher kept members loyal to the study and we saw no shirking or interruption of cooperation by any of the members. In order to analyze data, we applied SPSS software, independent T and Pierson correlation test and descriptive statistical tests.

Finding of survey: Seventy eight percent of Migraine patients in both groups were between 34 to 43 years old. (35.8%) of patients in involved group and 43% of them in observing group were married. Eighty two percent of all Migraine patients had education below the high school diploma. In terms of number of children, must frequency was between 1 to 2 children and the least frequency was between 5 to 6 children. According to the independent T test, we found out that there was no significant difference between demographic factors (age, number of children, and level of education, respectively) of both groups before intervention. Pierson coefficient of correlation demonstrates a negative and week relationship between life quality grade and number of children variable. Also regarding Spearman coefficient of correlation, we can see a direct relationship between life quality grade and economic state of the family. After all, the reliability of questionnaire has been retested by the Content Credibility Test and coefficient of correlation measured about 82%.

As an ultimate observation, we saw an improvement in physical and mental health of involved patients along with an increase in their life quality grade during the pursuit period (after 6 weeks) and also final phase of intervention (after 12 weeks). This happened while we observed no evidence of improvement or significant change for observing group. Above all, regarding the independent T test, we saw no significant difference between both groups before intervention but after the beginning of the intervention and during its period, we

<table>
<thead>
<tr>
<th>Phase</th>
<th>Life quality dimensions</th>
<th>Control</th>
<th>Interference</th>
<th>Independent t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before interference</td>
<td>Physical health</td>
<td>47.4 (14.9)*</td>
<td>46.7 (17.4)</td>
<td>p = 0.74</td>
</tr>
<tr>
<td></td>
<td>Mental health</td>
<td>41.6 (14.6)</td>
<td>39.7 (20.3)</td>
<td>p = 0.49</td>
</tr>
<tr>
<td></td>
<td>Total score</td>
<td>46.2 (14.9)</td>
<td>46.8 (17.1)</td>
<td>p = 0.92</td>
</tr>
<tr>
<td>Pursuit phase (6 weeks</td>
<td>Physical health</td>
<td>66.6 (8.9)</td>
<td>46 (15.5)</td>
<td>p = 0.04</td>
</tr>
<tr>
<td>after interference)</td>
<td>Mental health</td>
<td>66.3 (7.9)</td>
<td>44.5 (14.8)</td>
<td>p = 0.002</td>
</tr>
<tr>
<td></td>
<td>Total score</td>
<td>66.2 (9.2)</td>
<td>47.9 (14.2)</td>
<td>p = 0.001</td>
</tr>
<tr>
<td>Final phase (12 weeks</td>
<td>Physical health</td>
<td>72.9 (8.7)</td>
<td>47.8 (16.6)</td>
<td>p = 0.06</td>
</tr>
<tr>
<td>after interference)</td>
<td>Mental health</td>
<td>73.4 (10.4)</td>
<td>41.9 (15.9)</td>
<td>p = 0.001</td>
</tr>
<tr>
<td></td>
<td>Total score</td>
<td>72.4 (9.2)</td>
<td>48 (14.9)</td>
<td>p = 0.001</td>
</tr>
</tbody>
</table>

*: Results are an average of replicates ±S.D
could see a constant divergence between the performance of both groups.

In the Table 1, we discuss the changes derived from our intervention program on the life quality of patients before its beginning, after six weeks of commencement and finally twelve weeks after the beginning of the survey.

Comparing average life quality grade of Migraine patients demonstrated a significant difference in three different phases of survey (before, within and after) according to the Repetitive Measurements variance analysis. This happened while we saw no significant differences in observing group. According the results of the survey, we saw an enhancement in life quality of Migraine patients after the application of intervention for involved group.

Stress is considered as one of the most important factors, causing headaches. Patients' reports also confirm this fact that patients experienced more stress before or within the headache (Davis et al., 1998). Existence of chronic illness affects family normal life, roles and life quality. Nursing a patient in the family perturbs their daily life and reduces happiness among family members. Kaplan and colleagues found out that appearance of illness in one of the family members would cause depression in whole family. Benazon et al. (2000) proved that the illness would affect patient's attitude about marriage and generally has a negative effect on their marriage satisfaction. Results of the survey after the intervention reveal that life quality average grade increased in all areas of (physical, mental, total life quality grade) survey after the intervention. And also the results show more the importance of training as a mean for diminishing the stress. Cheung et al. (2003) also approved that progressive muscular relaxation will reduce anxiety (or stress), therefore, it will provide an upper quality of life in all dimensions (physical or mental) for Migraine patients (Cheung et al., 2003).

As Carole and Boucher believe, usually positive effects of this type of relaxation appear constantly and not so quickly. In fact relaxation is a response which patients must learn it by training. Several consecutive weeks of training, will cause an enormous progress in person's physical and mental performance (Carroll and Bowdher, 1993). Trask and colleagues, after several clinical experiments concluded that applying relaxation techniques Affect patients' life quality and also reduces tensions for cancer patients during month 2 and 6 (Trask et al., 2003).

**CONCLUSION**

Continuing relaxation training will increase life quality grade. Based on this fact, we can claim that relaxation training has a prominent role in increasing patients' health level. Regarding intervention effectiveness and its low cost expenses, it needs to be more considered as an effective solution for enhancement of tranquility of Migraine patients.

**REFERENCES**


Dehdari, T., 1381. Analysis of the Effects of Hygiene Training on the Life Quality of Patients by Surgery. Tarbiyat Modares University, Tehran.


