Full Length Research Article

A QUASI EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF JACOBSON'S PROGRESSIVE MUSCLE RELAXATION (JPMR) TRAINING ON ANXIETY LEVEL OF ALCOHOLIC PATIENTS ADMITTED FOR DE-ADDICTION IN SELECTED HOSPITALS, JALANDHAR, PUNJAB

*Kawaljit Kaur and Baljinder Kaur

MHR DAV Institute of Nursing, Jalandhar

ARTICLE INFO

ABSTRACT

A Quasi Experimental study to assess the effectiveness of Jacobson's Progressive Muscle Relaxation (JPMR) Training on anxiety level of alcoholic patients admitted for de-addiction in selected hospitals, Jalandhar, Punjab. The aim of the study is to assess the effectiveness of Jacobson's Progressive Muscle Relaxation (JPMR) training on anxiety level of alcoholic patients admitted for de-addiction. Results depicted that the mean pre training anxiety score of experimental group was 22.26 and mean post training score was 7.93. The difference between the means of pre training and post training anxiety score was statistically significant at $p<0.05$ level. The mean pre training anxiety score of control group was 19.56 and mean post training score was 19.56.The difference between pre training and post training mean anxiety score was statistically non significant. The pre training anxiety score of alcoholic patients of experimental was 22.26 and control group was 19.56. This difference in mean was statistically non significant at $p<0.05$ level. The post training anxiety score of alcoholic patients was 7.93 of experimental and 19.56 of control group. This difference in the means was statistically significant at $p<0.05$ level. Hence the findings revealed that there was decrease in the anxiety level of alcoholic patients of experimental group after receiving JPMR training, so the research hypothesis (H_1) was accepted

INTRODUCTION

Background of the study

'By drinking which, his intelligence departs, and madness enters his mind; he (who drinks) cannot distinguish between his own and others and he is struck down by his Lord and Master. Drinking it, he forgets his Lord and Master, and he is punished in the Court of the Lord.'(Sri Guru Granth Sahib, p. 554, Guru Amar Daas ji).

Generally, alcoholism is one of the major health and social problem seen all over the world. Alcohol is a group of substances and the technical name of alcohol beverage is ethanol or ethyl alcohol. Overall, 3.5% of the global burden of disease is attributable to alcohol, which accounts for as much death and disability. The pattern of drinking has changed from occasional and ritualistic use to social, raised concerns about the health and the social consequences of excessive drinking. Alcohol use has been identified as one of the global risk factor accounting for 1.5% of all deaths in the world and 3.5% of

disability adjusted life years and 4.0% of all global burden of disease (Rehm, 2004). Alcoholism, also known as alcohol dependence, is a disease that includes the following four symptoms: craving-a strong need, or urge, to drink; loss of control-not being able to stop drinking once drinking has begun; physical dependence--withdrawal symptoms, such as nausea, sweating, shakiness, and anxiety after stopping drinking as withdrawal symptom. For a person in an early stage of alcoholism, discontinuing alcohol use may result in some withdrawal symptoms, including anxiety and poor sleep. Withdrawal from long-term dependence may bring the uncontrollable shaking, spasms, panic, and hallucinations of Delirium Tremens **(**Martin, 2012**)**. Most common anxiety reduction techniques are relaxation techniques like progressive muscle relaxation to treat anxiety. (Brady, Bryan, Verduin, 2007).

Need of the study

WHO, 1998 ranked Alcohol dependence disorder as ninth among the top ten medical disorders causing morbidity in the world, based on the results from epidemiological studies. Alcohol is becoming more widely used in Asian countries.

*Corresponding author: Kawaljit Kaur
MHR DAV Institute of Nursing, Jalandhar

Withdrawal can occur when the blood alcohol level (BAL) is decreasing, even if the patient is still intoxicated or has consumed 75 alcohol recently, with a significant proportion of dependent drinkers experiencing the onset of withdrawal symptoms before the BAL reaches zero Psychological symptoms of alcohol withdrawal. Use of alcohol is so common that many Punjabis cannot take food without taking alcohol. There are many authorized liquor stores in a city. In some villages there is no dispensary, but many drug stores which sell pills and synthetic drug to addicts who cannot afford opium and heroine. These stores are also opened on bus stops, on the roads. There are eight thousand liquor stores in the state. A large share of the state revenue is obtained by the auction of these stores and taxes on the sale of liquor. According to official figures, the Punjab state realized about 2374 crore rupees as excise duty in 2010-11 and consumption of liquor was about 11 liters per month per person. There is no exaggeration if remarked that Punjab is in the tight grip of alcoholism and banned drugs. Synthetic drugs have become a scourge of the Punjab state where alcohol and opium is prevalent. Record shows that consumption of liquor in the state has increased by 59% during the years 2005 to 2010. The problem is, undoubtedly, immense and worrisome as a majority of addicts are between the ages of 15 and 35. (Singh S). we have an important role in identification, control, and management of anxiety which is a prominent withdrawal symptom among alcoholic patients. Alcoholic patients admitted for de-addiction are usually unable to handle anxiety and found it difficult to obtain sobriety. Therefore the researcher decided to undertake this study to teach JPMR therapy to the patients and to assess its effect on anxiety.

Objectives of the study

- To assess pre training anxiety level of alcoholic patients of experimental group and control group admitted for de-addiction.
- To plan and implement JPMR Training among alcoholic patients of experimental group admitted for de-addiction.
- To assess post training anxiety level of alcoholic patients of experimental group and control group admitted for de-addiction.
- To compare pre and post training anxiety level of alcoholic patients of experimental group and control group admitted for de-addiction.
- To determine the relationship of anxiety level with selected socio-demographic variables of alcoholic patients admitted for de-addiction in selected hospitals.

Delimitations

The study was limited to:

- 60 alcoholic patients only i.e. 30 patients in experimental group and 30 patients in control group.
- Patients admitted in wards for de-addiction in selected hospitals of Jalandhar.

Review of Literature

The review of literature is defined as a broad, comprehensive, in-depth, systematic and critical review of scholarly publications, unpublished scholarly print material, audio-visual materials and personal communications.

The review of literature has been divided into three parts:-

- Literature related to prevalence of alcoholism and its related risk factors.
- Literature related to anxiety as withdrawal symptom of alcohol.
- Literature related to effect of Jacobson's progressive muscle relaxation technique on anxiety.

Literature related to effect of Jacobson's progressive muscle relaxation technique on anxiety

Weber (2006) conducted a study on effects of progressive muscle relaxation technique on anxiety levels in psychiatric inpatients. A convenience sample of 39 subjects were selected and measured the level of anxiety by means of state trait anxiety inventory. The Results shows that a significant reduction in anxiety level was obtained on posttest by Jacobson's Progressive muscle relaxation Technique.

Gormathy (2008) conducted a study to determine the effectiveness of progressive muscle relaxation technique among clients with anxiety undergoing alcohol de-addiction at selected rehabilitation centers in Madurai .The conceptual framework of this study was derived from Roy's Adaptation Model (1995). The research approach adopted for this study was evaluative in nature. The sample size was 60.Data collection was done as planned and 3 weeks were taken for data collection. The data gathered were analyzed in terms of descriptive and inferential statistics. The paired 't' test were used to find out the effectiveness of progressive muscle relaxation technique. Comparison of anxiety level among alcoholic de-addiction patients between pre and post test showed significant difference at 0.01 levels. The study concluded that progressive muscle relaxation technique was effective in lowering the anxiety level with alcoholic de-addiction patient.

Greeff, Comrade (1998) conducted a study on use of progressive relaxation training for chronic alcoholics with insomnia on alcoholic patients. To assess the effect of progressive relaxation training on insomnia in institutionalized chronic alcoholic men, 22 subjects between the ages of 20 and 60 years, were randomly allocated to treatment and control groups. The treatment group received 10 sessions of progressive relaxation training over a 2 week period after which both groups completed a post experimental questionnaire .Analysis showed a significant improvement in the sleeping patterns of treated group, but no changes in the sleeping patterns of the control group. In addition, distribution free two samples per mutation test to compare mean differences of the groups confirmed that a significantly greater change occurred in the quality of the sleeping patterns of the treated group.

The review of literature helped the researcher in framing research tool and analyzing the effectiveness of Jacobson's progressive muscle relaxation technique (JPMR) on anxiety level of alcoholic patients. From above findings, it is clear that anxiety is the one of the major withdrawal symptom in alcoholic patients and JPMR is effective in treating anxiety.

Description of tool

The tool consists of 3 parts

Part –I: Socio-demographic variables to obtain personal and general information on aspects like age, education, religion, type of family, residence, marital status, occupation, monthly income, duration of alcohol dependency, quantity of alcohol intake during last month (average per day), number of previous treatments for abstaining from alcohol, any treatment/management for anxiety.

Part – II: It consists of Hamilton's Anxiety Scale (HAM-A) to assess the anxiety level of alcoholic patients admitted for de-addiction in selected hospitals of Jalandhar. . Hamilton's Anxiety Scale (HAM-A) developed by Hamilton (1959) was used, as the tool was freely available on net under public domain. It contains 14 symptom-oriented items categorized under 2 domains i.e. psychic domain (1-6 items) and somatic domain (7-14 items).Each item in the tool was given a severity rating for assessment of anxiety from not present (scored as 0) to very severe (scored as 4). The possible response to each item was chosen by interviewing the patient and by observing the patient's facial expressions. The administration time of tool was about 15-20 minutes per patient. Maximum Score of tool is 56 and minimum score is 0. A total score of 0-17 indicates mild anxiety, 18-25 indicates mild to moderate anxiety, and 26-30 indicates moderate to severe anxiety and total score above 30 were rare, but indicates very severe anxiety.

Part- III: It consists of structured plan of Jacobson's Progressive Muscle Relaxation Training provided to alcoholic patients of experimental group admitted for de-addiction in selected hospitals of Jalandhar. In the present study Jacobson's Progressive Muscle Relaxation training was used to relieve anxiety of alcoholic patients admitted for de-addiction. Before conducting training sessions of JPMR on patients the researcher underwent one month training program for developing skill in performing JPMR under guidance of clinical psychologist working at Ashoka Neuro Psychiatric Hospital & De-addiction Centre, Jalandhar, Punjab and the certificate of the same was issued. Patients of experimental group were made to carry out this technique for 20-40 minutes at regular times in a quiet, relaxing spot, on an empty stomach. It involves tensing and relaxing, in succession, sixteen different muscle groups of the body i.e. to tense each muscle group hard (not so hard that it produces strain) for about 5-10 seconds and then let go of it suddenly, then give 10-20 seconds to relax noticing how the muscle group feels when relaxed in contrast to how it felt when tensed, before going to the next groups of muscles. Each patient in experimental group underwent 6 training sessions out of which first 3 were complete instructional and next 3 were observational sessions.

Content validity

Content Validity of the tool was confirmed by expert's opinion regarding the relevance of items. The tool was circulated samong experts from the field of Psychiatric (Mental Health) Nursing. According to their valuable suggestions modification was made in Socio demographic variables i.e. Part-I and lesson plan of Jacobson's Progressive Muscle Relaxation

(JPMR) i.e. Part-III. The modification in the standardized tool i.e. in Punjabi version was made as per valuable suggestions given by experts from the field of Punjabi.

Pilot study

Pilot study was conducted in the first week of February 2014 to ensure the reliability of the tool and feasibility of the study. Permission for conducting the study was taken from Dr. Aman Sood, Head of Department, Psychiatric unit Civil Hospital, Jalandhar and Dr. AK Gupta, Head of Ashoka Neuro-Psychiatric hospital and De-addiction Centre, Jalandhar. The sample consisted of 6 alcoholic patients admitted for de-addiction i.e.3 in experimental group and 3 in control group. Written consent was taken from alcoholic patients. Pre training anxiety of experimental and Control group was assessed by structured Interview method using Hamilton's Anxiety Scale (HAM-A) that consist of 14 items. After assessing pre training anxiety each patient in experimental group was given the training on JPMR for which they underwent 6 sessions i.e. three complete instructional training sessions and three observational sessions. On 6th day post training anxiety level of patients of experimental and control group was assessed.

Data collection procedure

Data was collected from 10th February to 30th March 2014 after getting administrative approval. Written permission was taken from the higher authorities of selected hospitals i.e. Medical Superintendent, Nursing Superintendent & Head of Psychiatric department, Civil Hospital and Head of Ashoka Neuro Psychaitric Hospitals and De-addiction Centre Jalandhar. Written consent was taken from the patients who were selected as sample. Total 60 patients were selected i.e. 30 in experimental group and 30 in control group from inpatient department. The patients admitted for one particular time duration were taken as experimental group and after their discharge, next group was taken as control group to prevent contamination of sample in both hospitals. The selected patients were interviewed individually before JPMR training to assess the anxiety level using Hamilton's anxiety scale (HAM-A). Then the patients in experimental group were given the training on JPMR individually in recreational/yoga room for which they underwent 6 sessions i.e. three complete training sessions and three observational sessions. On 6th day again the anxiety level of patients of experimental and control group was analyzed

Ethical consideration

- Ethical clearance was taken from the ethical committee of MHR D.A.V Institute of Nursing, Jalandhar.
- Ethical clearance was taken from the higher authorities of the selected hospitals of Jalandhar.
- Written Consent was taken from the patients before conducting the study.

Plan of data analysis

Analysis of the data was done according to the objectives. Data obtained was analyzed in terms of descriptive statistics i.e. mean, mean percentage, standard deviation and inferential statistics such as, 't' test and "F" (ANOVA) test.

Major Findings

According to Section I

Analysis of socio-demographic Variables

- **In experimental group** most of the patients were in age group 31-40 years, 33.34 %(10) educated up to 11th - 12th standard, 36.67%(11) belonging to sikh religion, 56.67%(17) residing in joint family in rural areas. Maximum were unmarried, doing private job70%(21) earning 5000/- per month33.33%(10), 43.33%(16) were dependent on alcohol, consuming 750ml per day70%(21).Majority 66.67%(20) had never taken treatment for abstaining from alcohol and had not undergone any treatment/management for anxiety66.67%(20).

- **In control group** most of the patients were in age group 20-30 years, 50 %(15) educated upto 6th - 10th standard, 50 %(15) belonging to hindu religion, 53.33 %(16) residing in joint family in rural areas. Maximum were unmarried, doing private job70 %(21) earning 5001-10,000/- & above 15,000/-per month36.67 %(11), 60 %(18) were dependent on alcohol, consuming 750ml per day76.67 %(23).Majority 80 %(24) had never taken treatment for abstaining from alcohol and had not undergone any treatment/management for anxiety63.33%(19).

According to Section II

Objective -1: To assess pre training anxiety level of alcoholic patients of experimental group and control group admitted for de-addiction.

- The mean pre training anxiety score of alcoholic patients of experimental group was 22.26 and control group was 19.56.
- 53.34% alcoholic patients in experimental group and 70.67% in control group had mild to moderate (25-30) level of anxiety before JPMR training.

Objective -3: To assess post training anxiety level of alcoholic patients of experimental group and control group admitted for de-addiction.

- The post training mean anxiety score of alcoholic patients of experimental group was 7.93 and control group was 19.56.
- 100% alcoholic patients of experimental group had mild anxiety and 70.67% patients in control group had mild to moderate level of anxiety after receiving JPMR training.

Section III: Comparison of pre and post training anxiety level of alcoholic patients of experimental group and control group.

Objective -4: To compare pre and post training anxiety level of alcoholic patients of experimental group and control group admitted for de-addiction.

- There was decrease in mean anxiety level of experimental group after receiving JPMR training (from 22.26 to 7.93) statistically significant at $p<0.05$ level.

Section IV: Relationship of anxiety with socio demographic variables by using't' test and ANOVA test.

Objective -5: To determine the relationship of anxiety level with selected socio- demographic variables of alcoholic patients of experimental group and control group admitted for de-addiction in selected hospitals.

- There was no statistically significant effect on post training anxiety level of patients in control group in majority of variables except religion, type of family, quantity of alcohol intake during last month.
- There was no statistically significant effect on post training anxiety level of patients in experimental group in majority of variables except religion, number of previous treatments for abstaining from alcohol, any treatment/management for anxiety.

REFERENCES

Rehm. 2004. Effects of Alcoholism .Nightingale Nursing Times:21-25.

Martin LJ, 2013. Substance Abuse and Addiction Health Centre: Understanding Alcohol Abuse -- Treatment, http://www.webmd.com/mental-health/addiction/reviwed on 11/11/2013.

Brady KT, Bryan KT, Verduin ML. 2007. Alcohol Use and Anxiety: Diagnostic and Management Issues. *American Journal of Psychiatry*. 164(2):217-221.

Singh S. 2014. Punjab in the Severe Grip of Intoxicants, http://sikhinstitute.org/july reviwed on 4/4/2014.

Weber S. 2006. The effects of relaxation exercises on anxiety levels in psychiatric inpatients. *Journal of Holistic Nursing Sep*; 14(3):196-295.

Gormathy G. 2013. The Effectiveness of Progressive MuscleRelaxationTechnique,file:///E:Msc%20documents/PSYCHIATRY/NURSES%20MEET%20THESIS.htm reviewed on 25/03/2013.

Greeff AP, Comrade WS. Use of progressive relaxation training for chronic alcoholics with insomnia. Psychological Reports.1998; 82 (I): 407-412.

****