

Role of Motivational Enhancement Therapy & Progressive Muscle Relaxation in Opioid Dependent Patients

Shefeena Jacob¹, Dr. Shikha Sharma²

Abstract: *The present study is an attempt to examine the efficacy of Motivational Enhancement Therapy & Progressive Muscle Relaxation on depression, anxiety and irritability in Opioid dependent prisoners. When patients experience co-morbid symptoms like anxiety, depression, irritability, tremors, one of the ways our body responds is with muscle tension. Progressive muscle relaxation is a method that helps to relieve the tension. A purposive random sample of 42 Opioid dependent prisoners between age group of 25 – 50 years, admitted in Psychiatry IPD of Geetanjali Medical College & Hospital, Udaipur (Raj.) for de-addiction were used for the study. Among them 28 patients were given only Pharmacotherapy (Group A) and 14 patients were given both Progressive Muscle Relaxation and Pharmacotherapy (Group B). Irritability, Depression, Anxiety Scale (IDAS) was administered to measure irritability, depression and anxiety in patients. The results of t-test showed that, there exists a significant difference in pre and post scores of irritability, anxiety and depression in both Group A & B. So the present study revealed the effect of Motivational Enhancement Therapy & PMR in the reduction of depression, anxiety and irritability symptoms in the Opioid dependent patients. It implies that, the combination of MET & PMR can provide improvement in the symptoms.*

Keywords: Motivational Enhancement Therapy, Progressive Muscle Relaxation, Pharmacotherapy, Irritability, Anxiety & Depression

1. Introduction & Need for the Study

Opioids are one of the most problematic illegal substances globally. Opioid abuse is associated with complications in various spheres of the user's life, his/her family and the society. Continued Opioid misuse can result in syndromes of abuse and dependence and cause disturbances in mood, behavior, and cognition that mimic other psychiatric disorders.

The physical effects of opioids include respiratory depression, pupillary constriction, smooth muscle contraction (including the ureters and the bile ducts), constipation, and changes in blood pressure, heart rate, and body temperature. Associated features of opioid withdrawal include restlessness, irritability, depression, tremor, weakness, nausea, and vomiting.

According to world drug report, 2016, there were an estimated 33 million opioid users globally in 2014, much less than 184 million cannabis users. However, among illegal substances, Opioid dependence is the highest contributor to the number of disability – adjusted – life – years lost (9.2 million) and to drug – related deaths (43.5 deaths/ million people aged 15 - 64 years) (Degenhardt et al, 2010). Opioid dependence affects the individual's physical, psychological, and occupational status as well as his/her family. Individuals with Opioid disorders are at risk for the development of mild to moderate depression that meets symptomatic and duration criteria for persistent depressive disorder, tremors, anxiety, irritability are common, especially during withdrawal, and so on.

When people experience co-morbid symptoms like anxiety, depression, irritability, tremors, one of the ways our body responds is with muscle tension. Progressive muscle relaxation is a method that helps to relieve that tension. Regular practicing of progressive muscle relaxation will help people to get better at this skill, and in time people will be able to use this method to cope with stress or relieve

stress, helps to attain both physical and mental fitness. When our body is physically relaxed, we cannot feel anxiety, irritability, tremors (Ramakrishnan & Kalai, 2015). Empirical evidence supports the use of PMR in high level tension responses and mind body techniques such as: reducing tension headaches, insomnia, adjunct treatment in cancer, chronic pain management in inflammatory arthritis and irritable bowel syndrome (Ranjita & Sarada, 2014).

If someone does not really feel motivated to quit opioids, they, have a high risk of relapse, which in turn can lead to a greater risk of death by over dose. For this reason, MET is a very important step in helping people who use opioids to get ready to quit before actually attempting it and to guide them through the various stages of change.

Motivational Enhancement Therapy (MET) is a systematic intervention approach for evoking change. It is based on principles of motivational psychology, and is designed to produce rapid, internally-motivated change and employs motivational strategies to mobilize the client's own change resources. It may be delivered as an intervention in itself, or may be used as a prelude to further treatment.

The MET approach is further grounded in research on processes of natural recovery. Prochaska and DiClemente (1982, 1984, 1986) have described a trans theoretical model of how people change addictive behaviors, with or without formal treatment. In a trans theoretical perspective, individuals move through a series of stages of change as they progress in modifying problem behaviors. This concept of stages is important in understanding change. Each stage requires certain tasks to be accomplished and certain processes to be used in order to achieve change.

Six separate stages have been identified in this model (Prochaska & DiClemente, 1984, 1986). Individuals who are not considering change in their problem behavior are described as being in PRECONTEMPLATION. The CONTEMPLATION stage entails the person's beginning to

Volume 8 Issue 2, February 2019

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

consider both the existence of a problem and the feasibility and costs of changing the problem behavior. As this, individual progresses, he or she moves on to the DETERMINATION stage where the decision is made to take action and change. Once the individual begins to modify the problem behavior, he or she enters the ACTION stage, which normally continues for 3-6 months. After successfully negotiating the action stage, the individual moves to MAINTENANCE or sustained change. If these efforts fail, a RELAPSE occurs, and the individual begins another cycle.

This motivational approach is well supported by clinical trials with alcohol problems: its overall effectiveness compares favorably with outcomes of alternative treatments, and when cost-effectiveness is considered, an MET strategy fares well indeed in comparison with other approaches (Holder et al., 1991).

Thus the present study was conducted to study the impact of Motivational Enhancement Therapy & Progressive Muscular Relaxation on the management of anxiety, irritability and depression among Opioid dependent prisoners with following objectives:

Objectives of the Study

- To study the significant difference in pre and post scores of depression, anxiety and irritability in Opioid dependent patients who were given only Pharmacotherapy
- To analyze the significant difference in pre and post scores of depression, anxiety and irritability in Opioid dependent patients who were given Pharmacotherapy and Motivational Enhancement Therapy & Progressive Muscle Relaxation.

2. Materials & Methods

Aim

To study the effect of Motivational Enhancement Therapy & Progressive Muscle Relaxation on depression, anxiety and irritability in Opioid patients.

Sample

A purposive random sample of 42 Opioid dependent prisoners, admitted in Psychiatry IPD of Geetanjali Medical College & Hospital, Udaipur (Raj.) for de-addiction.

Tools

Irritability, Depression, Anxiety Scale (IDAS): It is the revised version of IDAS published in Snaith et al. (1978). It is used to measure irritability, depression and anxiety.

Procedure

The study was conducted in the Department of Psychiatry of Geetanjali Medical College & Hospital, Udaipur, Rajasthan during December 2016. Forty two Opioid dependent prisoner patients were diagnosed by psychiatrist of the department as per the criteria of International Classification of Disorders (ICD - 10) were recruited from Out Patient Department. Irritability, Depression Anxiety Scale (IDAS) was used for individual assessment. IDAS was administered

to access the irritability, depression and anxiety level of patients.

A sample of 42 prisoner patients, in which 28 patients who were given only Pharmacotherapy (Group A), which is the control group & other 14 patients who were given Motivational Enhancement Therapy, Progressive Muscle Relaxation and Pharmacotherapy (Group B), which is the experimental group. Here data was collected prior to medication and therapy then after one month of **Pharmacotherapy and PMR + Motivational Enhancement Therapy**. All the subjects (in experimental group) were subjected to 20 sessions (in 1 month) of Progressive Muscle Relaxation on every day in the week, 30 mins every session along with MET. The techniques were employed to the patients with the help of a qualified Clinical Psychologist.

Each patient was given homework assignment that they have to practice Progressive Muscle Relaxation at their home daily (two times eg. Morning and before bed time) and record sheet was given to find out whether they are doing it regularly or not. Those patients were regular in their home works was only included in this study.

Prior to the test, all subjects underwent a detail psycho evaluation, general physical examination & systematic examination by psychiatrists and clinical psychologist. Informed consent was obtained from all subjects. The subjects were explained about the nature and purpose of the study.

Parameters of the Study

Independent Variables (IV)

Progressive Muscle Relaxation 2. Motivational Enhancement Therapy & 3. Pharmacotherapy

Dependent Variable (DV)

Depression 2. Anxiety & 3. Irritability

Hypothesis

H1: There is significant difference by Pharmacotherapy in pre and post irritability, depression and anxiety scores.

H2: There is significant difference by Motivational Enhancement Therapy, Progressive Muscle Relaxation sessions and pharmacotherapy in pre and post anxiety, depression and irritability scores.

Inclusion Criteria

- 1) Only male prisoners were taken for the study.
- 2) Individuals between 25 -50 years of age.

Exclusion Criteria

- 1) Patients with present clinical evidence of general medical conditions (like hyper or hypo - thyroidism, epilepsy, asthma, head injury, major surgical operations, sexually transmitted diseases etc).
- 2) Intellectually disabled were excluded.

Analysis of Data

Statistical procedure such as **t- test** was employed to find out the significance of results

3. Result & Discussion

In the present study, efficacy of PMR on dimensions like depression, anxiety, and irritability has been assessed. The results of the study discussed as follows

H1: There is significant difference by Pharmacotherapy in pre and post irritability, depression and anxiety scores.

Table 1: Values of means, standard deviations and t scores for pre and post test with measures of depression in Group – A

Score	n	Mean	SD	t-Value	P Value
Pre test	28	7.03	1.45	5.37	< 0.0001
Post test	28	5.0	1.38		

The difference is considered to be extremely statistically significant

Table 2: Values of means, standard deviations and t scores for pre and post test with measures of anxiety in Group – A

Score	n	Mean	SD	t-Value	P Value
Pre test	28	7.78	1.44	5.14	< 0.0001
Post test	28	5.96	1.20		

The difference is considered to be extremely statistically significant

Table 3: Values of means, standard deviations and t scores for pre and post test with measures of irritability in Group – A

Score	n	Mean	SD	t-Value	P Value
Pre test	28	7.42	1.03	7.41	< 0.0001
Post test	28	5.35	1.06		

The difference is considered to be extremely statistically significant. Research suggests that, although pharmacotherapy can successfully treat anxiety and depression, psychiatric medications alone or through their interaction with other drugs can produce side effects, and some patients are unwilling to take psychiatric medications. Some patients may be reluctant to take any additional drugs, perceiving that as a sign of loss of control and personal weakness in the handling of their illness (Leandro, 2010).

H2: There is significant difference by Motivational Enhancement Therapy, Progressive Muscle Relaxation sessions and pharmacotherapy in pre and post anxiety, depression and irritability scores.

Table 4: Values of means, standard deviations and t scores for pre and post test with measures of depression in Group – B

Score	n	Mean	SD	t-Value	P Value
Pre test	14	6.78	2.42	2.50	0.0187
Post test	14	4.85	1.56		

The difference is considered to be statistically significant. Project MATCH (1997) found that several sessions of MET when delivered, were more efficacious as compared to other therapies and other interventions. Miller (1987) pointed out that voluntary lengths of stay may simply reflect

greater motivation, which he suggested may be the real predictor of change.

Table 5: Values of means, standard deviations and t scores for pre and post test with measures of anxiety in Group – B

Score	n	Mean	SD	t-Value	P Value
Pre test	14	7.78	1.44	3.63	0.0012
Post test	14	5.96	1.20		

The difference is considered to be very statistically significant. Another research infers the improvement in anxiety and stress showed the potential of APMRT in the management of prostate cancer patients. Future studies should be carried out over a longer duration to provide stronger evidence for the introduction of relaxation therapy among prostate cancer patients as a coping strategy to improve their anxiety and stress (Isa M R, 2013)

Shaffer and Robbins (1995) also suggest that MET principles should be used prescriptively, based upon the client's stage of change. For example, in the pre contemplation stage, clinicians are encouraged to focus more on interventions such as reflective listening, empathy, open questions, and helping the client to examine different views about their use and the role that substance use plays in their lives.

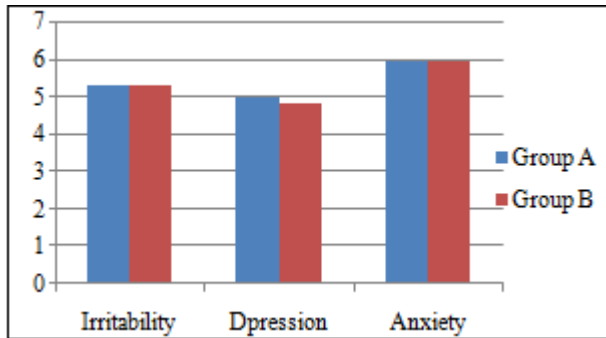
Table 6: Values of means, standard deviations and t scores for pre and post test with measures of irritability in Group – B

Score	n	Mean	SD	t-Value	P Value
Pre test	14	7.42	1.03	5.24	< 0.0001
Post test	14	5.35	1.06		

The difference is considered to be extremely statistically significant. Relaxation techniques have been shown as an effective adjunctive therapy for anxiety and depression, providing patients with self-maintenance coping skills to reduce anxiety symptoms. Progressive muscle relaxation (PMR) is a systematic technique used to achieve a deep state of relaxation and has been shown to improve health-related QOL in a variety of medical and psychiatric illnesses. (Ranjita & Sarada, 2014)

Table 7: Values of means for Post mean scores of depression, anxiety and stress among Group A & Group B

Dimensions	Group A (mean) (n=28)	Group B (mean) (n=14)
Irritability	5.35	5.35
Depression	5.0	4.85
Anxiety	5.96	5.96



Graph 1: Values of means for Post mean scores of depression, anxiety and irritability among Group A & Group B

From the above findings we can infer that as like medications, Motivational Enhancement Therapy and Progressive Muscle Relaxations provide positive impact on symptoms like irritability, anxiety and depression. Studies shows the effect of PMR on different medical conditions like, an average reduction in blood pressure was significantly greater in subjects treated with Jacobson's relaxation technique along with medications as compared to only medications and it was concluded that Jacobson's relaxation technique can be used as an adjunctive intervention in the treatment of hypertension (Van Dixhoorn & Duivenvoorden, 1999)

Progressive Muscular Relaxation Exercise program on elderly patients with Psychiatric Illness are effective in their quality of life and their functional activities. Progressive Muscle Relaxation Therapy is a systematic therapy for managing stress and achieving a deep state of relaxation. It is effective for both physical and psychological challenges and widely used strategy for stress relief. With regular practice it gives a complete relaxation (Ramakrishnan & Kalai, 2015).

Research on MET suggests that its effects depend on the type of drug used by participants and on the goal of the intervention. This approach has been used successfully with people addicted to opioid to both improve their engagement in treatment and reduce their addiction to opioids.

The difference between pre test and post test was found significant in both Group A & B. This supports both the hypotheses of the study that, there exists a significant difference between pre and post scores of irritability, anxiety and depression by the combination of MET & PMR + pharmacotherapy and only pharmacotherapy interventions. Therefore we can infer that, Motivational Enhancement Therapy & Progressive Muscle Relaxation can improve symptoms.

4. Conclusion

The results of the present study revealed the effect of Motivational Enhancement Therapy and Progressive Muscle Relaxation in the reduction of depression, anxiety and irritability in Opioid patients. So it was concluded that, Motivational Enhancement Therapy & Progressive Muscle Relaxation interventions can provide improvement in the symptoms.

5. Limitations & Future Suggestions

The study was limited to 42 samples. The establishment of larger sample will provide more generalized results. And the samples in both groups were not in equal proportion. The study could also include a separate group of PMR and MET only for more generalized results.

References

- [1] Dagenhardt, L., & Whiteford, H. A. (2013). Global burden of disease attributable to illicit drug use and dependence: Findings from the Global Burden of Disease Study 2010 *Lancet*, 382, 1564 -74
- [2] Holder, H. D., Longabaugh, R., Miller, W. R., & Rubonis, A. V. (1991). The cost effectiveness of treatment for alcohol problems: A first approximation. *Journal of Studies on Alcohol*.
- [3] Isa, M.R., & Moy F.M. (2013). Impact of applied progressive deep muscle relaxation training on the level of depression, anxiety and stress among prostate cancer patients: a quasi-experimental study. *Asian Pacific journal of cancer prevention: APJCP*, Vol 14(4), 2237-42
- [4] Leandro, PG; (2010). "Coping with stress and its relationship with personality dimensions, anxiety, and depression". *Procedia Social and Behavioral Sciences*, Vol 5 (1), 1562-1573
- [5] Miller, W. R. (1987). Motivation and treatment goals. *Drugs and Society*, 1, 133-151.
- [6] Prochaska, J. O., & DiClemente, C. C. (1982). Transtheoretical therapy Toward a more integrative model of change. *Psychotherapy: Theory, research and practice*, 19, 276-288.
- [7] Prochaska, J. O., & DiClemente, C. C. (1984). The transtheoretical approach: Crossing traditional boundaries of therapy. Homewood, IL: Dow Jones/Irwin.
- [8] Prochaska, J. O., & DiClemente, C. C. (1986). Toward a comprehensive model of change. In W.R. Miller & N. Heather (Eds.), *Treating addictive behaviors: Processes of change* (p. 3-27). New York: Plenum Press
- [9] Project MATCH. Matching Alcoholism Treatments to Client Heterogeneity. *Journal study on alcohol*. 1997; 58 (1): 7 -29
- [10] Ramakrishnan, M & Kalai, C; (2015). "The Effects of Progressive Muscular Relaxation Exercise among Geriatric Patients with Psychiatric Illness", *International Journal of Science and Research*, Vol 4(1), 2319- 2328
- [11] Ranjita, L & Sarada, N; (2014). "Progressive Muscle Relaxation therapy in Anxiety: A Neuro physiological Study", *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, Vol 13 (2), 25-28
- [12] Sadock, J. B & Sadock, A.V; (2007). *Synopsis of Psychiatry*. Ed (10). Lippincott Williams & Wilkins. New York.
- [13] Shaffer, H. J., Robbins, M. (1995). Psychotherapy for addictive behavior: a stage change approach to meaning making. In: Washton, A. M., ed. *Psychotherapy and Substance Abuse: A Practitioner's Handbook*. New York: Guilford Press.

- [14] Snaith, R.P & Taylor, C.M. (1985). "Irritability: definition, assessment and associated factors". *British Journal of Psychiatry*, Vol 147, 127 -36
- [15] Van Dixhoorn, J.J & Duivenvoorden, H.J; (1999). "Effect of relaxation therapy on cardiac events after myocardial infarction: a 5-year follow-up study". *J Cardiopulm Rehabil*, Vol 19 (14), 178–185
- [16] Zargarzadeh, M & Shirazi, M; (2014) "The effect of progressive muscle relaxation method on test anxiety in nursing students in Ira". *J Nurs Midwifery Res*, Vol 19(6), 607–612