

# Effectiveness of Jacobson's Progressive Muscles Relaxation Techniques (JPMRT) on Anxiety among Detoxified Inmates of De-Addiction Centers

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**Abstract:** Aim of the study was to evaluate the effectiveness of Jacobson's Progressive Muscles Relaxation Techniques (JPMRT) on Anxiety among detoxified inmates. The research design was quasi-experimental, non-equivalent control group research design. Researcher used Beck Anxiety Inventory (BAI) to collect the data. Total 46 (Experimental group = 25, Control group = 21) male detoxified inmates were selected through Purposive sampling technique. JPMRT was administered to Experimental group for 30 minutes once in a day. The effectiveness of Jacobson's Muscles Relaxation Therapy (JPMRT) on level of anxiety in experimental group pre-test – follow-up mean difference was 15.05, 't' = 25.30, (P=0.001, Significant). Whereas in control group pre-test – follow-up mean difference was 08.76, 't' = 22.13, (P=0.001, Significant).

**Keywords:** JPMRT, Anxiety, Detoxified, De-addiction

## 1. Introduction

Today, there is no part of the world that is free from the curse of drug trafficking and drug addiction. India too is caught in this vicious circle of drug abuse, and the number of drug addicts are increasing day by day. Ahmad Nadeem (2009)<sup>1</sup> 30% of total Indian population consumed alcohol. NIAA (2014)<sup>5</sup>. 11% Indian population involved in binge drinking. In which, 93% consumed alcohol in the form of spirits. 07% consumed alcohol in the form of beer. Less than 1% population consumed wine. WHO (2014)<sup>2</sup>

Average age of initiation of alcohol use in India has been reduced from 28 years during 1980s to 17 years in 2007 & up to 12 years in 2014. NIAA(2014)<sup>3</sup>. According to UN world drug report it was estimated that there are about 10 million cannabis user, 2 million Opioids user and 1 million heroine users are registered in India. UNODC(2016)<sup>4</sup>

Substance abuse client has high-level of anxiety. Detoxified inmates with anxiety disorder have high relapse rate and if it is left untreated anxiety disorder gives severe impact on physical & psychological condition of a person. Steven M (2014)<sup>5</sup>.

There are many pharmacological treatments available to treat substance related anxiety, but prolonged use of such drugs may lead severe side-effects. The intention of present study was to assess anxiety among detoxified inmates and develop practice regarding Jacobson's Progressive Muscles Relaxation Techniques (JPMRT) for developing better coping strategy among such people to prevent relapse stage. This may helpful in reducing the relapse chances among detoxified inmates.

## 2. Problem Definition

Evaluate The Effectiveness of Jacobson's Progressive Muscles Relaxation Techniques (JPMRT) on Anxiety Among Detoxified Inmates of De-Addiction Centers at Udaipur District of Rajasthan.

## Objectives

- To assess anxiety among detoxified inmates.
- To evaluate effectiveness of JPMRT on anxiety among detoxified inmates.
- To find out the association of pre-test anxiety scores with selected socio demographic variable among detoxified inmates.

## Hypothesis

- **H<sub>0</sub>1** There is no statistically significant relationship between obtained score of anxiety & detoxified inmates of de-addiction centers at Udaipur district of Rajasthan.
- **H<sub>0</sub>2** There is no statistically significant relationship between the effect of Jacobson relaxation therapy (JPMRT) & score obtained on the level of anxiety among detoxified inmates.
- **H<sub>0</sub>3** There will not be statistically significant relationship between the socio demographic variables & score obtained on the level of anxiety among detoxified inmates of de-addiction centers at Udaipur district of Rajasthan.

## 3. Methods / Approach

**Research Approach** – Quantitative experimental research approach.

**Research Design** – Quasi – experimental research design; Non-equivalent control group design.

**Setting of the study** - All de-addiction centers of Udaipur district, Rajasthan.

**Population of the study** – All detoxified Male inmates of de-addiction centers of Udaipur district, Rajasthan.

**Sample-** All detoxified Male inmates of de-addiction centers.

**Sampling techniques** – Purposive sampling technique.

**Sample size-** 46 Detoxified Male inmates

**Inclusion criteria** –

- Detoxified male inmates of de-addiction centers of Udaipur district.

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- Those male inmates diagnosed according to ICD-10 DCR criteria.

**Exclusion criteria**

- Those detoxified Male inmates who had spent less than 01 months at de-addiction centers at Udaipur district of Rajasthan.
- Female inmates were not included in the study due to non availability of female inmates in de-addiction centers.
- Inmates who were taking treatment for Anxiety.
- According to ICD -10 DCR inmates who were suffering with comorbid psychiatric disorder, personality disorders, major physical illnesses, organic brain syndromes, mental retardation, etc.
- Inmates dependent on anti- anxiety drugs.

**Ethical clearance**– Ethical permission was obtained from the institute ethical committee. Permission to conduct research study was obtained from de-addiction center authority.

**Development of the Tool**

In this study a socio-demographic proforma, & other standardized direct (face-to-face) interview assessment tools were used to evaluate anxiety among detoxified inmates.

**Preparation of the Tool :** Tool consist 33 items which were translated & in to vernacular language. The comprehension, feasibility and time required to complete the statement was assessed. The average time taken for completion of the tool was 10 minutes & scoring time was 02 minutes. The language was found to be clear and the items were easily comprehended by the sample.

**Description of the tool:** The direct interview assessment tool consist two sections.

**Section – I: Socio-demographic proforma :** Consists 12 items

**Intervention of the study:** Jacobson muscles relaxation therapy (JPMRT)

Based on the review of the literature, Non research literature, national & international workshop & conference training programme, attended a one year full time certified course on PG Diploma on Guidance & Counselling and the objectives stated in the blue print and their performance in pre-test the intervention of the study Jacobson relaxation therapy (JPMRT) was planned for 04 weeks (Once in a day) each session carries 30 minutes time. Planned therapy was validated with 12 different subject experts from the field of Mental Health.

**Data collection procedure**

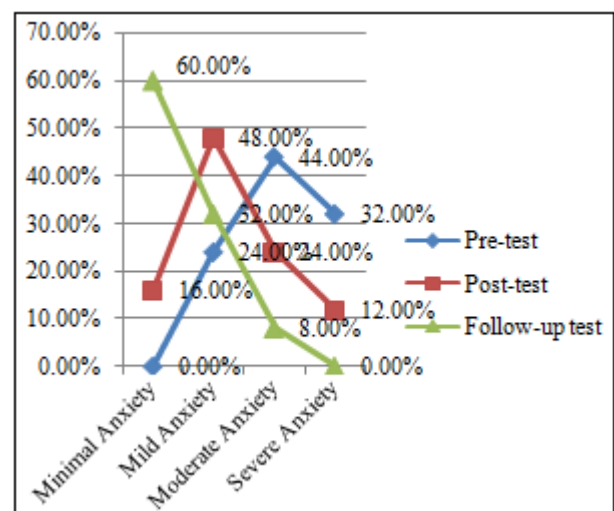
- Purposive sampling technique was used to collect the data.
- The inmates provided informed written consent / willingness to collect the data.
- Direct interview (face-to-face) was conducted with each individual & confidentiality of study subject was assured & Beck Anxiety Inventory was administered in a counselling room to obtained pre-test score.
- 04 weeks (Once in a day) JPMRT sessions were conducted with detoxified inmates.

- Based on the pre-test obtained anxiety score Jacobson relaxation Therapy (JPMRT) intervention was planned by the researcher.
- Post-test assessment for anxiety was conducted 04 weeks after completing the JPMRT sessions & further follow-up session was conducted after 30 days of post-test assessment.
- Data Analysis – Descriptive & Inferential (mean, median, standard deviation, chi-square & t-test) were used for analyzing the computed data.

**4. Result / Discussion**

**Table 1: Anxiety among Experimental Group, N = 25**

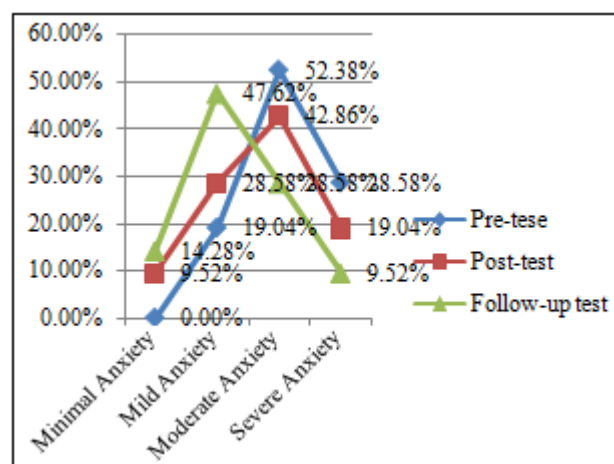
| Level of anxiety | Anxiety Score | Pre -test | %    | Post -test | %    | Follow up | %    |
|------------------|---------------|-----------|------|------------|------|-----------|------|
| Minimal          | 0-7           | 00        | 0 %  | 04         | 16 % | 15        | 60 % |
| Mild             | 08-15         | 06        | 24 % | 12         | 48 % | 08        | 32 % |
| Moderate         | 16-25         | 11        | 44 % | 06         | 24 % | 02        | 08 % |
| Severe           | 26-63         | 08        | 32 % | 03         | 12 % | 00        | 0 %  |



**Figure 1: Anxiety among Experimental Group.**

**Table 2: Anxiety among Control Group, N = 21**

| Level of anxiety | Anxiety Score | Pre-test | %      | Post-test | %      | Follow up | %      |
|------------------|---------------|----------|--------|-----------|--------|-----------|--------|
| Minimal          | 0- 7          | 00       | 00.00% | 02        | 09.52% | 03        | 14.28% |
| Mild             | 8-15          | 04       | 19.04% | 06        | 28.58% | 10        | 47.62% |
| Moderate         | 16-25         | 11       | 52.38% | 09        | 42.86% | 06        | 28.58% |
| Severe           | 26-63         | 06       | 28.58% | 04        | 19.04% | 02        | 09.52% |



**Figure 2: Anxiety among Control Group**

**Table 3:** Beck Anxiety Inventory (BAI) Score Experimental group, N= 25

| BAI                 | N  | Mean  | SD   | t     | P value |
|---------------------|----|-------|------|-------|---------|
| Pre-test Total BAI  | 25 | 21.57 | 7.47 | 18.59 | 0.001   |
| Post-test Total BAI | 25 | 14.52 | 7.62 |       |         |
| Pre-test Total BAI  | 25 | 21.57 | 7.47 | 25.30 | 0.001   |
| Follow Up Total BAI | 25 | 6.52  | 5.14 |       |         |
| Post-test Total BAI | 25 | 14.52 | 7.62 | 13.96 | 0.001   |
| Follow Up Total BAI | 25 | 6.52  | 5.14 |       |         |

**Table 4:** Beck Anxiety Inventory (BAI) Score Control group, N = 21

| BAI                 | N  | Mean  | SD   | t     | P value |
|---------------------|----|-------|------|-------|---------|
| Pre-test Total BAI  | 21 | 21.52 | 7.58 | 16.26 | 0.001   |
| Post-test Total BAI | 21 | 17.09 | 7.38 |       |         |
| Pre-test Total BAI  | 21 | 21.52 | 7.58 | 22.13 | 0.001   |
| Follow Up Total BAI | 21 | 12.76 | 6.95 |       |         |
| Post-test Total BAI | 21 | 17.09 | 7.38 | 12.73 | 0.001   |
| Follow Up Total BAI | 21 | 12.76 | 6.95 |       |         |

**Table 5:**Pre-test Dimension wise Beck Anxiety Inventory (BAI) Score, N = 46

| Pre-test              | Group              | N  | Mean | SD   | t    | P value |
|-----------------------|--------------------|----|------|------|------|---------|
| Pre-test Cognitive    | Experimental Group | 25 | 8.23 | 3.26 | 0.27 | 0.78    |
|                       | Control Group      | 21 | 8.04 | 2.74 |      |         |
| Pre-test Autonomic    | Experimental Group | 25 | 3.19 | 1.56 | -7.3 | 0.47    |
|                       | Control Group      | 21 | 3.52 | 1.69 |      |         |
| Pre-test Neuromotor   | Experimental Group | 25 | 7.85 | 2.98 | 0.56 | 0.57    |
|                       | Control Group      | 21 | 7.38 | 3.00 |      |         |
| Pre-test Panic Attack | Experimental Group | 25 | 2.31 | 0.89 | -1.5 | 0.01    |
|                       | Control Group      | 21 | 2.68 | 1.17 |      |         |

**Table 6:** Post-test Dimension wise Beck Anxiety Inventory (BAI) Score, N = 46

| Post-test              | Group              | N  | Mean | SD   | t     | P value |
|------------------------|--------------------|----|------|------|-------|---------|
| Post-test Cognitive    | Experimental Group | 25 | 6.45 | 3.17 | -0.27 | 0.78    |
|                        | Control Group      | 21 | 6.68 | 2.62 |       |         |
| Post-test Autonomic    | Experimental Group | 25 | 2.19 | 1.24 | -0.77 | 0.45    |
|                        | Control Group      | 21 | 2.52 | 1.56 |       |         |
| Post-test Neuromotor   | Experimental Group | 25 | 4.95 | 2.85 | -1.31 | 0.20    |
|                        | Control Group      | 21 | 6.04 | 3.08 |       |         |
| Post-test Panic Attack | Experimental Group | 25 | 1.00 | 1.09 | -2.47 | 0.01    |
|                        | Control Group      | 21 | 1.76 | 0.88 |       |         |

**Table 7:** Follow-up Test Dimension wise Beck Anxiety Inventory (BAI) Score, N = 46

| Follow up test         | Group              | N  | Mean | SD   | t     | P value |
|------------------------|--------------------|----|------|------|-------|---------|
| Follow Up Cognitive    | Experimental Group | 25 | 2.61 | 2.31 | -3.76 | 0.001   |
|                        | Control Group      | 21 | 5.14 | 2.47 |       |         |
| Follow Up Autonomic    | Experimental Group | 25 | 0.90 | 0.94 | -4.38 | 0.001   |
|                        | Control Group      | 21 | 2.04 | 1.20 |       |         |
| Follow Up Neuromotor   | Experimental Group | 25 | 2.52 | 2.20 | -2.50 | 0.01    |
|                        | Control Group      | 21 | 4.42 | 3.02 |       |         |
| Follow Up Panic Attack | Experimental Group | 25 | 0.47 | 0.67 | -2.68 | 0.01    |
|                        | Control Group      | 21 | 1.23 | 0.99 |       |         |

In the present study experimental & control group that obtained chi-square value is more than tabulated value. So, there was no significant association between anxiety score & selected demographic variables.

### 5. Discussion

In a similar way descriptive survey was conducted to assess anxiety among alcoholic inmates at Bangalore, Karnataka. Researcher used non probability convenience sampling technique among 50 male alcoholic inmates age group was identified as 18 – 50 yrs. Researcher used State Trait Anxiety Scale (STAS) to evaluate level of anxiety. Result of the study showed that majority of alcoholic i.e. 82% had severe anxiety, 18% had moderate anxiety & none of them had mild or were without anxiety. Sharma N<sup>6</sup>

A similar study was conducted on effectiveness of JPMRT on anxiety among alcoholic detoxified inmates. A quasi-experimental one group pre-test post-test research design was used on 100 male at Odisha. Researcher used purposive sampling technique and DASS Scale was used to collected data. Results showed that in pre-test 67.00% participants reported panic anxiety. Participants also reported that scores related to physical factor anxiety i.e. 55.00% was higher compare to economical factor i.e. 45.00%. During post-test non of any participant reported panic anxiety (P=0.001, Significant).<sup>7</sup>

In a same way a descriptive survey was conducted to assess anxiety level among alcoholic inmates at Bangalore, Karnataka. Researcher did not found association between anxiety score & demographic variables. Researcher also reported that alcohol induce anxiety among the person who is alcohol addicted or one who use alcohol for longer duration.<sup>6</sup>

### 6. Conclusion

- Anxiety among detoxified inmates was higher in experimental & control group during pre – test, Hence null-hypothesis H<sub>0</sub>1 was rejected.

- Anxiety scores were reduced more for experimental group as comparative to control group in post-test & follow-up test. Hence, null-hypothesis  $H_02$  was rejected.
- There was no statistically significant association between the pre-test anxiety scores with selected socio-demographic variables. Hence, the null hypothesis  $H_03$  was accepted.

## 7. Future Scope

- A similar study can be replicated on same sample with different demographic variables.
- Effectiveness of Jacobson's Relaxation Therapy (JPMRT) can be evaluate on stress & coping mechanism among caregiver of detoxified inmates at de-addiction centers of selected districts of Rajasthan.
- Effectiveness of Jacobson's Relaxation Therapy (JPMRT) can be evaluate on client with hypertension.
- A follow up study among same sample can be conducted after a year to determine the effectiveness of Jacobson's Relaxation Therapy (JPMRT).

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