Effectiveness of Guided Imagery on Level of Perceived Stress and Depression Among Sober Alcohol Dependents Admitted in De-Addiction Centers of Selected Areas

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ABSTRACT
Introduction: Alcohol abuse poses significant health challenges, affecting individuals and families. Guided imagery therapy offers a promising approach to manage stress and emotions, potentially mitigating the impacts of alcoholism and depression. Methodology: This study employed a quasi-experimental, non-randomized control group design with a quantitative approach to assess the effectiveness of guided imagery therapy on perceived stress and depression in sober alcohol dependents at selected de-addiction centers. Baseline characteristics, including age, gender, education, family type, occupation, income, and duration of alcohol use, were collected using Tool I. Stress levels were measured with the 5-point Perceived Stress Scale (Tool II), while the 4-point Hamilton Depression Scale (Tool III) assessed depression. Written permission from de-addiction authorities and informed consent from participants were obtained. The sample included 60 sober alcohol dependents from Maharashtra, selected via non-probability purposive sampling. Test-retest reliability for stress and depression was confirmed, with scores of 0.89 and 0.90, respectively. Result: The study assessed the effectiveness of guided imagery therapy on perceived stress and depression among sober alcohol dependents using a quasi- experimental design. In the experimental group, pre-test data revealed that 60% experienced severe perceived stress, which decreased to 66.66% at moderate levels post-intervention, demonstrating significant improvement (t-value: 20.018). Conversely, the control group showed no change, with 80% remaining in the severe category pre- and post-test (t-value: 0.1054). Similarly, for depression, the experimental group reported 63.34% severe depression pre-test, reducing to 70% at moderate levels post-test (t-value: 7.907), while the control group exhibited no significant change. Analysis of associations with demographic variables revealed no significant correlations for age, education, family type, or occupation; however, a significant relationship was found between the duration of alcohol consumption and depression levels (chi-square: 8.948). Conclusion: Thus, guided imagery therapy effectively perceived stress and depression reduced among the experimental group.

1. Introduction

Alcohol consumption has been a significant part of human society since ancient times, but its abuse continues to pose major health and social challenges. Alcohol-related harms, such as rising emergency room visits, hospitalizations, and fatalities, have escalated, yet discussions around alcohol addiction remain limited.1 The impact of alcohol abuse extends beyond the individual, affecting families and society at large. Alarmingly, the alcohol industry in certain regions is valued at 7,500 crores of rupees annually, far surpassing sectors like rice production. This highlights the pervasive presence of alcohol in daily life, and its consumption patterns continue to evolve globally.2

Alcoholism often coincides with heightened stress, tension, and negative emotions within families. These negative thoughts and stresses can impact both mental and physical health. Guided imagery therapy, a cognitive behavioral technique, is designed to combat these mental health challenges. This method encourages individuals to imagine calming scenes or experiences, helping them relax and manage their emotions. By consciously visualizing positive images, individuals can experience therapeutic benefits such as reduced stress, anxiety, and depression.3

Perceived stress, a natural part of life, can arise from daily challenges or major life events. Research suggests that stress can affect cognitive functions, making individuals more prone to mistakes and reducing self-confidence. Stress can also exacerbate unhealthy behaviors, such as overeating, and is linked to physical brain changes that may worsen depression.4 Depression, characterized by prolonged sadness, can alter a person's

emotions, behavior, and physical health, affecting people of all ages, especially those between 15 and 30. Guided imagery, by helping individuals manage their stress and emotional responses, holds promise as a tool for mitigating the effects of alcohol abuse and depression.5

2. Need of the Study

Perceived stress and depression levels in India are alarmingly high, with approximately 82% of the population affected. Those in the sandwich generation, responsible for both aging parents and young children, are particularly vulnerable, with around 89% reporting some level of stress and depression.6 Managing perceived stress is crucial for maintaining good health, as modern life is filled with stressors from both external and internal sources. External factors include job pressures, relationships, and daily challenges, while internal factors, such as emotional well-being, physical health, nutrition, and sleep quality, influence how one copes with stress.4Alcohol dependency further exacerbates these issues. Individuals addicted to alcohol often experience cravings and a loss of control over their drinking. Withdrawal from alcohol can lead to heightened perceived stress and depression. As a result, effective stress management strategies are essential, particularly for those recovering from alcohol dependency.7 Reducing perceived stress can prevent the onset or worsening of depression, contributing to improved mental health and well-being. Addressing these factors is vital to improving the overall quality of life in a society where stress and depression are pervasive.8

Perceived stress can significantly impact both physical and mental health, often without individuals realizing it. According to Ritwik M. (2019), stress symptoms may be behind issues like headaches, insomnia, or reduced productivity. If left unmanaged, stress can contribute to serious health problems such as high blood pressure, heart disease, obesity, and diabetes. Common physical symptoms include headaches, muscle tension, chest pain, and fatigue. It can also affect mood, leading to anxiety, irritability, and depression. Behavioral changes may include overeating, alcohol misuse, social withdrawal, and a reduction in exercise, making stress management essential for overall well-being.9

3. Aim of the Study

To evaluate the effectiveness of guided imagery therapy on the levels of perceived stress and depression among sober alcohol dependents admitted in de-addiction centers of selected areas.

4. Methodology

This study utilizes a quasi-experimental, non-randomized control group design with a quantitative research approach to evaluate the effectiveness of guided imagery therapy on perceived stress and depression among sober alcohol dependents in selected de-addiction centers. The baseline characteristics of the participants, such as age, gender, education, type of family, occupation, family monthly income, and duration of alcohol consumption, were assessed using Tool I. Tool II, a 5-point Perceived Stress Scale, was used to measure stress levels, while Tool III, a 4-point Hamilton Depression Scale, assessed depression levels. Written permission was obtained from the de-addiction authorities, and informed consent was secured from all participants. Data collection was conducted by the investigator. The study population included sober alcohol dependents from a selected area of Maharashtra, with a sample size of 60 determined through power analysis and selected using non-probability purposive sampling. The primary objective was to assess the effectiveness of guided imagery on stress and depression, while secondary objectives included measuring baseline levels, determining therapy efficacy, and analyzing associations between pre- test findings and demographic variables. Test-retest reliability for perceived stress and depression was confirmed, with scores of 0.89 and 0.9, respectively.

5. Result

Section I: Description of samples based on their demographic variables.

The percentage-wise distribution of respondents according to age reveals that the majority (43%) were in the 31-40 age group, while the lowest percentage (25%) fell in the 20-30 age group. Regarding gender, all respondents (100%) were male. In terms of education, half (50%) of the respondents had secondary education, and only 8.34% had a degree or higher, indicating that most had a secondary-level education.

Concerning family structure, 50% of respondents came from nuclear families, 38.34% from joint families, and 6.66% were from single-parent households, showing a dominance of nuclear families. In terms of occupation, the largest group (35%) were engaged in business, followed by private employees (25%), with the smallest group

(18.34%) involved in agriculture.

Regarding family income, 51.66% of respondents had a monthly income between INR 20,001- 25,000, while only 8.33% earned between INR 15,000-20,000. Finally, 33.35% of respondents had consumed alcohol for 6-10 years, while the smallest group (15%) had been drinking for less than five years, showing that the majority had a longer history of alcohol consumption.

Section II A: Effectiveness of guided imagery on level of perceived stress among sober alcohol dependents from experimental and control group

- Frequency and percentage wise distribution of pre-test and post- test level of perceived stress score of respondents from Experimental group

Percentage wise distribution of pre-test and post-test level of perceived stress score of respondents from experimental group depicts that highest percentage in pre-test, (60%) of them had severe perceived stress and in post-test (66.66%) of the respondents had moderate perceived stress. Hence it can be interpreted that guided imagery was effective in reducing the severity of the perceived stress among respondents from experimental group.

- Frequency and percentage wise distribution of pre-test and post-test level of perceived stress score of respondents from Control group

Percentage wise distribution of pre-test and post-test level of perceived stress score of respondents from control group depicts that highest percentage in pre-test, (80%) of them had severe Perceived Stress and in post-test (76.66%) of the respondents had severe perceived stress. Hence it can be interpreted that guided imagery was not effective in reducing the severity of the perceived stress among respondents from control group.

- Paired 't' value of pre and post-test level of perceived stress score of respondents from experimental group

The t-value was calculated to analyze the difference between the pre-test and post-test perceived stress scores of the respondents. A significant difference was observed after the application of guided imagery techniques, with a t-value of 20.018. Therefore, the null hypothesis is rejected, indicating that there was a significant reduction in perceived stress scores between the pre-test and post-test assessments.

- Paired 't' value of pre and post-test level of perceived stress score of respondents from control group.

The t-value was calculated to analyze the difference between the pre-test and post-test perceived stress scores of the respondents. No significant difference was found after the application of guided imagery techniques, with a t-value of 0.1054. Therefore, the null hypothesis is accepted, indicating that there was no significant change in perceived stress scores between the pre-test and post-test assessments.

- Unpaired 't' value of post-test level of perceived stress score of respondents from experimental & control group.

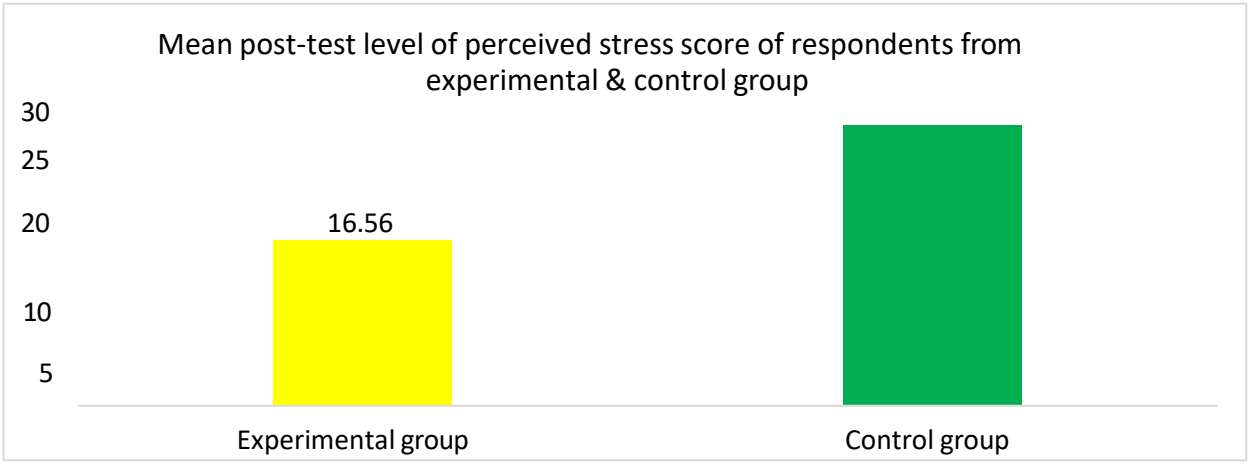

Fig- 1 Mean post-test level score of perceived stress score of respondents from experimental & control group

The t-value was calculated to analyze the difference in post-test perceived stress scores between the experimental

and control groups. A significant difference was found, with a t-value of 14.886. Therefore, the null hypothesis is rejected, indicating a significant difference in post-test perceived stress scores between the experimental and control groups.

Section II B: Effectiveness of guided imagery on level of depression among sober alcohol dependents from experimental and control group

- Frequency and percentage wise distribution of pre-test and post-testlevel of depression score of respondents from Experimental group

Percentage wise distribution of pre-test and post-test level of depression score of respondents from experimental group depicts that highest percentage in pre-test, (63.34%) of them had severe depression and lowest percentage (6.66%) of them had normal depression and in post-test (70%) of the respondents had moderate depression and the lowest percentage (30%) of them had normal depression. Hence it can be interpreted that guided imagery was effective in reducing the severity of the depression among respondents from experimental group.

- Frequency and percentage wise distribution of pre-test and post-test level of depression score of respondents from Control group

Percentage wise distribution of pre-test and post-test level of depression score of respondents from control group depicts that highest percentage in pretest, (43.34%) of them had severe depression and the lowest percentage (3.33%) of them had normal depression and in posttest (63.34%) of the respondents had severe depression and the lowest percentage (36.66%) of them had moderate depression. Hence it can be interpreted that guided imagery technique was not effective in reducing the severity of the depression among respondents from control group.

- Paired 't' value of pre and post-test level of depression score of respondents from experimental group

The t-value was calculated to analyze the difference between the pre-test and post- test depression scores of the respondents. A significant difference was observed after the application of guided imagery techniques, with a t-value of 7.907. Consequently, the null hypothesis is rejected, indicating a significant change in depression scores between the pre-test and post-test assessments.

- Paired 't' value of pre and post-test level of depression score of respondents from control group

The t-value was calculated to analyze the difference between the pre-test and post- test depression scores of the respondents. No significant difference was found following the application of guided imagery techniques, with a t-value of 1.337. Therefore, the null hypothesis is accepted, indicating that there was no significant difference in depression scores between the pre-test and post-test assessments of the control group.

- Unpaired 't' value of post-test level of depression score of respondents from experimental & control group

Table No 1: Unpaired 't' value of post-test level of depression score of respondents from experimental & control group (n =60)

SN	Group	Mean	SD	't' value	P Value	Level of significance
1	Exp. group	12.7	4.550	**7.264**	**0.0001**	**Significant**
2	Control group	21.2	4514			

The t-value was calculated to analyze the difference in post-test depression scores between the experimental and control groups. A significant difference was found, with a t-value of

7.264. Therefore, the null hypothesis is rejected, indicating a significant difference in post- test depression scores between the experimental group and the control group.

Section: III- A: To find association between pre-test level of perceived stress with demographic variables i.e., age, gender, Education, type of family, occupation, monthly income, duration of consumption of alcohol.

The analysis of associations between various factors and the level of perceived stress scores revealed no significant findings. The calculated chi-square value of 0.54 for age was less than the table value of 7.815, indicating no significant association. Similarly, since the study comprised only male participants, there was no opportunity to explore gender associations. For education, the chi-square value of 3.841 was also less than the

table value of 7.815, indicating no significant relationship. The same conclusion applies to occupation, with a calculated chi-square value of 5.349 being less than 7.815, and for the duration of alcohol consumption, where a chi-square value of 4.279 was again less than the table value. Thus, no significant associations were found between the level of perceived stress scores and the examined demographic variables.

Section: III – B: To find association between pretest level of depression with demographic variablesi.e., age, Education, type of family, occupation, monthly income, duration of consumption of alcohol.

The analysis of associations between various factors and the level of depression scores yielded mixed results. The calculated chi-square value of 6.750 for age was less than the table value of 9.488, indicating no significant association. Similarly, since the study consisted solely of male participants, there was no opportunity to examine gender associations. For education, the chi-square value of 6.421 was less than the table value of 7.815, showing no significant relationship. Likewise, the calculated chi-square value of 5.213 for the type of family was less than the table value of 5.991, indicating no significant association. The same finding was observed for occupation, where the chi-square value of 6.732 was less than 7.815. In contrast, a significant association was found between the duration of alcohol consumption and the level of depression, as evidenced by the calculated chi-square value of 8.948, which exceeded the table value of 7.815.

6. Discussion

The study demonstrates that guided imagery significantly reduces perceived stress levels among participants in the experimental group. Initially, 60% of respondents reported severe perceived stress, which decreased to 33.34% post-test, indicating a shift to moderate stress levels. This change is supported by a significant t-value of 20.018, leading to the rejection of the null hypothesis.

In contrast, the control group showed no significant change, with 80% remaining in the severe category pre-test and 76.66% post-test, reflected by a t-value of 0.1054, thus accepting the null hypothesis. Additionally, a significant difference in post-test perceived stress scores was noted between the groups ($t = 14.886$), underscoring the effectiveness of guided imagery as a therapeutic tool.

Regarding depression, the experimental group had 63.34% with severe depression pre-test and only 6.66% at normal levels. Post-intervention, 70% reported moderate depression, and 30% were at normal levels, indicating a reduction in severity. In contrast, the control group started with 43.34% in the severe category, and post-test results showed 63.34% remained severely depressed, highlighting the intervention's ineffectiveness. Statistical analysis revealed a significant change in the experimental group's depression scores ($t = 7.907$), rejecting the null hypothesis. The control group had a t-value of 1.337, indicating no significant change. A significant difference in post-test scores between groups ($t = 7.264$) further confirms the effectiveness of guided imagery in reducing both perceived stress and depression. Aarti, Palanivelu, S., Sharma, M., & Sarin, J. (2020) found that guided imagery significantly reduced stress levels ($t(32) = 20.05$, $p = 0.00$) and improved adaptive coping ($t(32) = 6.91$, $p = 0.00$) while also decreasing maladaptive coping ($t(32) = 6.87$, $p = 0.01$) among the wives of alcoholics.10

7. Conclusion

The findings of this study underscore the effectiveness of guided imagery therapy as a significant intervention for reducing perceived stress and depression among sober alcohol dependents. Given the alarming prevalence of alcohol dependency and its associated psychological challenges, the introduction of therapeutic techniques like guided imagery can provide much-needed support in recovery settings. The study highlights the importance of addressing mental health issues alongside addiction treatment, as both stress and depression can exacerbate alcohol dependency and hinder recovery efforts. By facilitating relaxation and emotional regulation, guided imagery can help individuals develop healthier coping mechanisms, ultimately leading to improved mental well-being.

Furthermore, this research illuminates the necessity for tailored therapeutic approaches within de-addiction centers, focusing not only on physical sobriety but also on the emotional and psychological needs of individuals. As stress and depression levels continue to rise in various populations, integrating holistic therapies such as guided imagery could play a vital role in enhancing the quality of life for individuals recovering from alcohol dependency. Future studies should explore the long-term benefits of guided imagery and its potential applicability across diverse demographic groups, ensuring a more comprehensive approach to addiction recovery and mental health management.

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