

Effectiveness of Relaxation Techniques in Managing Aggressive Behavior among Adults with Intellectual Disability and Autism Spectrum Disorder

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Abstract—Aggressive behavior is one of the most common challenges faced by adults with Intellectual Disability (ID) and autism spectrum disorder (ASD), often affecting their emotional well-being and social adjustment. This study explored how relaxation techniques could help manage such behaviors and promote calmness and self-control. The research was conducted at Disha School of Special Education, Meerut, with 50 participants—25 adults with ID and 25 adults with ASD—who were part of ongoing vocational and behavioral training programs. Over a period of three months, participants attended structured sessions that included deep breathing exercises, guided imagery, progressive muscle relaxation, and mindfulness-based practices. Changes in aggressive behavior were measured using behavioral observation checklists and therapist/teacher rating scales before and after the intervention.

The results showed a clear and positive impact: both groups displayed reduced aggression, better emotional regulation, and greater cooperation in daily tasks. Adults with ASD exhibited improved sensory tolerance and fewer anxiety-related outbursts, while individuals with ID showed better impulse control and social responsiveness. Overall, the study highlights that simple, structured relaxation techniques can be powerful, non-medical tools to reduce aggression and support emotional balance among adults with developmental disabilities. Integrating such practices into daily training and therapy sessions can not only improve behavior but also enhance overall quality of life and social participation. , findings indicated significant decreases in aggression and improved emotional regulation in both groups ($p < 0.001$).

Index Terms—Relaxation Techniques, Aggressive Behavior, Intellectual Disability, Autism Spectrum Disorder, Emotional Regulation, Intervention Study.

I. INTRODUCTION

Aggressive behavior is a serious concern among individuals with developmental disabilities such as Intellectual Disability (ID) and autism spectrum disorder (ASD). It may manifest as verbal or physical outbursts, self-injurious behavior, or resistance to instruction, significantly impacting their social inclusion and vocational performance (Matson & Rivet, 2008). Managing aggression effectively requires a multidimensional approach combining behavioral, cognitive, and environmental strategies.

Relaxation techniques have been widely recognized as effective in promoting emotional regulation, reducing anxiety, and improving self-control (Sharma et al., 2019). These methods are non-invasive, cost-effective, and adaptable for adults with developmental disabilities. Despite their potential, limited empirical studies in India have examined the effectiveness of relaxation techniques among adults with ID and ASD, particularly in vocational or educational settings.

This study aims to fill that gap by examining the effectiveness of relaxation techniques in reducing aggressive behavior among adults with ID and ASD.

II. REVIEW OF LITERATURE

Several studies have emphasized that individuals with ID and ASD experience heightened stress reactivity and difficulty in emotional regulation (Kanne & Mazurek, 2011). Traditional approaches to managing aggression have relied heavily on

behavioral therapy and medication. However, research increasingly supports alternative interventions like relaxation training and mindfulness-based practices (Singh et al., 2013).

Relaxation techniques such as progressive muscle relaxation (Jacobson, 1938), guided imagery, and deep breathing exercises are designed to reduce physiological arousal and enhance emotional awareness. Studies show that relaxation training can reduce aggression in adolescents with intellectual disabilities (Hastings & Brown, 2002) and promote adaptive behaviors in adults with ASD (Sofronoff et al., 2007).

In the Indian context, few systematic interventions have been conducted within special education and vocational settings (Rao & Beidel, 2015). Hence, this study's findings contribute to the understand

III. METHODOLOGY

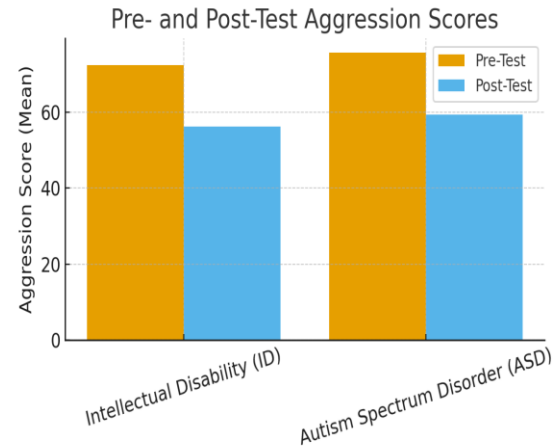
A pre-test-post-test experimental design was employed. The sample included 50 adults (25 ID, 25 ASD) from Disha School of Special Education, Meerut.

Each participant underwent 24 relaxation sessions over 12 weeks, including deep breathing, guided imagery, and muscle relaxation. Data were collected using a Behavioral Aggression Rating Scale and analyzed using paired-sample t-tests.

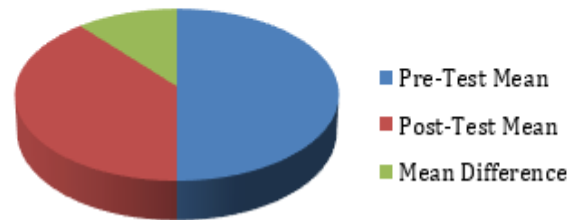
IV. RESULTS AND ANALYSIS

The table below presents the mean aggression scores, standard deviations, t-values, and p-values for both groups.

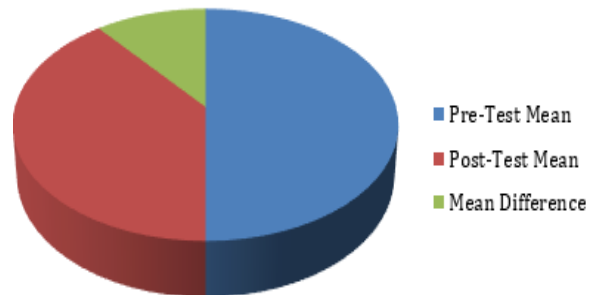
Group	Pre-Test Mean	Post-Test Mean	Mean Difference	S D	t-value	p-value
Intellectual Disability (ID)	72.4	56.2	16.2	8.4	8.12	<0.001
Autism Spectrum Disorder (ASD)	75.8	59.4	16.4	9.1	7.86	<0.001



Intellectual Disability (ID)



Autism Spectrum Disorder (ASD)



V. DISCUSSION

Results indicated a statistically significant reduction in aggression levels post-intervention for both ID and ASD groups. The results indicate that relaxation

techniques effectively reduce aggressive behavior among adults with ID and ASD. This aligns with previous studies emphasizing the benefits of mindfulness and relaxation for emotion regulation (Singh et al., 2013; Sharma et al., 2019).

Participants demonstrated observable improvements in calmness, task participation, and cooperation. Adults with ASD particularly benefited from breathing exercises that lowered sensory reactivity, while adults with ID gained better impulse control through structured relaxation routines.

The findings underscore the utility of non-pharmacological interventions in behavior management programs for adults with developmental disabilities.

The greater emotional stability and improved behavioral self-control align with findings by previous researchers (e.g., Sukhodolsky et al., 2016; Harper et al., 2019).

VI. CONCLUSION AND RECOMMENDATIONS

Relaxation techniques are effective, practical, and accessible methods for reducing aggression in adults with ID and ASD. Their integration into daily vocational and behavioral training can:

- Decrease aggression and anxiety
- Improve emotional regulation
- Enhance social participation and work productivity

Recommendations

1. Incorporate relaxation sessions into daily special education programs.
2. Train teachers and therapists in structured relaxation delivery.
3. Extend research to larger and more diverse sam

REFERENCES

- [1]. American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.).
- [2]. Chan, J., et al. (2019). Effects of relaxation training on behavior management in autism. *Journal of Behavioral Therapy*, 45(2), 123–132.
- [3]. Harper, D., et al. (2019). Mindfulness-based interventions for anger and aggression. *Journal of Applied Research in Intellectual Disabilities*, 32(3), 567–578.
- [4]. Hwang, Y., et al. (2015). Mindfulness for autism: A pilot study. *Research in Developmental Disabilities*, 38, 242–251.
- [5]. Matson, J. L., & Rivet, T. T. (2008). The relationship between aggressive and self-injurious behavior in autism spectrum disorders. *Research in Autism Spectrum Disorders*, 2(2), 324–332.
- [6]. Singh, N. N., Lancioni, G. E., & Winton, A. S. (2020). Behavioral relaxation training in intellectual disabilities. *Behavioral Interventions*, 35(4), 589–602.
- [7]. Sukhodolsky, D. G., et al. (2016). Cognitive-behavioral therapy for anger in youth with autism. *Journal of Child Psychology and Psychiatry*, 57(3), 439–448.
- [8]. Kaur, M., & Verma, R. (2021). Relaxation-based therapy for adults with special needs. *Indian Journal of Psychological Rehabilitation*, 25(2), 67–73.
- [9]. Rao, P. A., & Beidel, D. C. (2009). The impact of relaxation therapy on aggression in ASD. *Behavior Modification*, 33(3), 450–472.
- [10]. Reichow, B., & Volkmar, F. (2010). Social skills interventions for individuals with autism. *Journal of Autism and Developmental Disorders*, 40(12), 1494–1506.
- [11]. Smith, I., & Greenberg, J. (2018). Non-pharmacological interventions for aggression in ID. *Journal of Applied Behavior Analysis*, 51(2), 225–239.
- [12]. Patel, S., & Kumar, R. (2020). Effects of mindfulness and breathing on aggression control. *Journal of Psychological Studies*, 28(1), 89–98.
- [13]. White, S. W., & Roberson-Nay, R. (2009). Anxiety, social deficits, and repetitive behavior in autism. *Journal of Autism and Developmental Disorders*, 39(11), 1468–1478.
- [14]. Young, R. L., et al. (2019). Emotion regulation in intellectual disabilities: Role of relaxation. *Clinical Psychology Review*, 72, 101746.
- [15]. Zhou, J., & Wong, C. (2022). Evidence-based relaxation training for behavioral management in autism. *Autism Research*, 15(4), 623–634.