

## IMPACT OF LAUGHTER THERAPY ON CAREGIVER BURDEN AND RESILIENCE AMONG ADHD CAREGIVERS

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### Abstract

Caregivers of children diagnosed with Attention-Deficit/Hyperactivity Disorder (ADHD) frequently experience high levels of psychological burden and reduced resilience due to persistent caregiving responsibilities. The present study examined the effectiveness of laughter therapy as a non-pharmacological intervention for reducing caregiver burden and enhancing resilience. A quasi-experimental pre-test and post-test design was employed with a purposive sample of 30 primary caregivers of children with ADHD. Standardized measures of caregiver burden and resilience were administered before and after a structured laughter therapy program. Paired sample t-test results revealed a statistically significant reduction in caregiver burden and a significant improvement in resilience following the intervention. The findings indicate that laughter therapy serves as an effective, low-cost psychological intervention for promoting caregiver well-being. The study highlights the importance of incorporating caregiver-focused emotional interventions into clinical and community support programs.

### Keywords:

Laughter Therapy, Caregiver Burden, Resilience, ADHD Caregivers

## 1. Introduction

Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder characterized by persistent difficulties in attention, impulse control, and hyperactivity, which significantly interfere with daily functioning. Caring for a child with ADHD requires continuous emotional, physical, and psychological involvement, often leading to elevated levels of caregiver burden, stress, and emotional exhaustion. Over time, these demands may negatively affect caregivers' mental health, coping abilities, and overall quality of life.

Resilience represents a crucial psychological resource that enables caregivers to adapt effectively to prolonged caregiving challenges. Caregivers with higher resilience demonstrate better emotional

regulation, positive coping strategies, and psychological stability despite continuous stress exposure. Therefore, strengthening resilience while reducing caregiver burden is essential for improving caregiver well-being. Laughter therapy has gained attention as a complementary psychological intervention that promotes emotional relief, reduces stress, and enhances positive affect through intentional laughter and humor-based activities. Laughter stimulates physiological relaxation, improves mood, and encourages social bonding, thereby supporting emotional recovery. Although laughter therapy has demonstrated beneficial effects in various populations, its application among caregivers of children with ADHD remains limited in empirical research.

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Considering the psychological vulnerability of ADHD caregivers and the potential benefits of laughter-based interventions, the present study aims to examine the impact of laughter therapy on caregiver burden and resilience among caregivers of children with ADHD.

## 2. Review of Literature

Previous studies have consistently highlighted the psychological challenges experienced by caregivers of children with chronic developmental and behavioral conditions. Caregiving responsibilities are often associated with increased stress, emotional exhaustion, and reduced quality of life. Zarit et al. (1980) reported that prolonged caregiving demands significantly contribute to caregiver burden across emotional, social, and physical domains. In the context of ADHD, caregivers frequently experience elevated levels of psychological distress due to children's behavioral difficulties, academic challenges, and social adjustment problems. Olson (2023) observed that caregivers of children with ADHD reported significantly higher stress and burden compared to caregivers of typically developing children. These findings emphasize the need for caregiver-focused psychological interventions.

Laughter and humor-based interventions have gained recognition as effective approaches for promoting emotional well-being. Pienaar and Bester (2017) demonstrated that laughter therapy significantly reduced emotional exhaustion and enhanced resilience among caregivers of children with chronic illnesses. Similarly, Sis Çelik and Yaralı (2020) reported that laughter yoga improved psychological well-being and resilience among healthcare professionals.

The theoretical foundation for laughter therapy is supported by positive psychology, which emphasizes the role of positive emotions in building

psychological resources and enhancing coping capacity (Fredrickson, 2001). Laughter stimulates positive affect, reduces stress hormones, and promotes emotional flexibility, thereby supporting psychological recovery and resilience (Martin, 2001; Kataria, 2011).

Although laughter therapy has been applied successfully in medical, educational, and occupational populations, limited research has explored its structured application among caregivers of children with ADHD. Most caregiver intervention studies primarily focus on behavioral management of children rather than psychological strengthening of caregivers. Moreover, existing studies often examine either caregiver burden or resilience independently, without addressing both variables simultaneously. Since resilience acts as a protective factor against caregiver burden, it is important to evaluate interventions that influence both outcomes together. Therefore, existing literature indicates a clear need for empirical research examining laughter therapy as a caregiver-centered intervention targeting both caregiver burden and resilience among ADHD caregivers.

## 3. Research Gap

Despite the growing body of literature on laughter therapy and caregiver stress, several important research gaps remain. Existing studies have largely overlooked caregivers of children with Attention-Deficit/Hyperactivity Disorder (ADHD), with limited research focusing specifically on this population. Furthermore, there is a scarcity of quantitative, intervention-based studies that simultaneously examine caregiver burden and resilience as outcome variables. In addition, few studies have employed standardized pre-test–post-test research designs to systematically evaluate the effectiveness of

laughter therapy among caregivers. The present study seeks to address these gaps by empirically examining the impact of laughter therapy on both caregiver burden and resilience among caregivers of children with ADHD.

## 4. Methodology

### 4.1 Research Design

The present study adopted a quantitative, quasi-experimental pre-test and post-test research design to evaluate the effectiveness of laughter therapy on caregiver burden and resilience among caregivers of children with Attention-Deficit/Hyperactivity Disorder (ADHD). This design was considered appropriate as it allows systematic assessment of changes in psychological variables following a structured intervention without the use of a control group.

### 4.2 Sampling Procedure and Participants

Purposive sampling technique was employed to select the study participants. The sample consisted of 30 primary caregivers of children diagnosed with ADHD, recruited from clinical and community settings. Caregivers aged between 25 and 55 years who had been providing continuous care for at least one year were included in the study. Caregivers with severe psychiatric illness or those currently undergoing psychological intervention were excluded. The selected caregivers represented mothers, fathers, and close family members who were directly involved in the daily care of the child.

### 4.3 Objectives

The objectives of the present study were:

1. To implement laughter therapy as an intervention for caregivers of children with ADHD.
2. To examine the effectiveness of laughter therapy in reducing caregiver burden.

3. To assess the effectiveness of laughter therapy in enhancing resilience among caregivers of children with ADHD.

## 4.4 Hypotheses

H1: There will be a significant reduction in caregiver burden scores among caregivers of children with ADHD after the laughter therapy intervention.

H2: There will be a significant improvement in resilience scores among caregivers of children with ADHD after the laughter therapy intervention.

## 5 Tools used

### 5.1 Caregiver Burden Scale

Caregiver burden was assessed using the Caregiver Burden Scale, which measures perceived burden across emotional, physical, social, and financial dimensions. The scale consists of multiple items rated on a Likert-type response format, with higher scores indicating greater levels of burden. Previous studies have reported strong internal consistency and construct validity, with Cronbach's alpha values ranging from .85 to .92 (Zarit et al., 1980). The scale demonstrates good convergent validity with measures of stress, anxiety, and quality of life.

### 5.2 Brief Resilience Scale (BRS)

Resilience was measured using the Brief Resilience Scale developed by Smith et al. (2008). The scale contains six items assessing an individual's ability to recover from stress. Responses are rated on a five-point Likert scale, with higher scores indicating greater resilience. The BRS has shown excellent reliability and validity across diverse populations, including caregivers and clinical samples.

### 5.3 Intervention Procedure

The laughter therapy intervention was conducted over a four-week period, comprising three sessions per week, resulting in a total of twelve sessions.

Each session lasted approximately 30 to 40 minutes and was conducted in a group format under the supervision of the researcher.

Each session followed a structured format:

1. Warm-up Phase: Gentle movements, stretching, rhythmic clapping, and breathing exercises.
2. Deep Breathing Exercises: Slow diaphragmatic breathing to promote relaxation.
3. Guided Laughter Exercises: Simulated and spontaneous laughter activities with eye contact and group interaction.
4. Playful Interaction Activities: Light playful movements, facial expressions, and humorous gestures.
5. Cool-down Phase: Brief relaxation and mindfulness-based breathing exercises.

6. All participants completed the full intervention program without receiving any other psychological treatment during the study period.

## 6. Data Collection Procedure

Pre-test assessments of caregiver burden and resilience were conducted before the initiation of the laughter therapy program. Post-test assessments were administered immediately after the completion of the four-week intervention. Participants were informed about the purpose of the study, and written informed consent was obtained. Confidentiality and voluntary participation were ensured throughout the study.

## 7. Results and Discussion

**Table 1. Distribution of Pre-Test and Post-Test Levels of Caregiver Burden**

Caregiver	Pre test	%	Post test	%
Burden scale	(N)		(N)	
Low	-	-	25	83
Moderate	6	20	5	17
High	24	80	-	-

Source: Primary Data

The pre-test assessment indicated that caregiver burden levels were considerably high among the participants. A majority of caregivers (80%) were classified under the high burden category, while the remaining 20% exhibited moderate burden. None of the caregivers reported low burden prior to the intervention. Following the laughter therapy intervention, a marked reduction in

caregiver burden was observed. Most caregivers (83%) shifted to the low burden category, and the remaining 17% were classified under moderate burden. Notably, no participant continued to report high levels of caregiver burden at post-test. This clear shift demonstrates a substantial reduction in perceived caregiving burden after participation in the laughter therapy program.

**Table 2. Distribution of Pre-Test and Post-Test Resilience Levels**

Brief Resilience Scale	Pre test	%	Post test	%
	(N)		(N)	
Low	28	93	-	-
Moderate	2	7	11	37
High	-	-	19	63

Source: Primary Data

The pre-test results revealed that resilience levels were predominantly low among the caregivers. Nearly all participants (93%) were classified under the low resilience category, while only a small proportion (7%) showed moderate resilience. None of the caregivers demonstrated high resilience prior to the intervention.

Post-test findings indicated a significant

improvement in resilience levels. No participant remained in the low resilience category. Instead, 37% of caregivers exhibited moderate resilience, and a majority (63%) demonstrated high resilience. This substantial improvement reflects the positive impact of laughter therapy on caregivers' adaptive coping capacity.

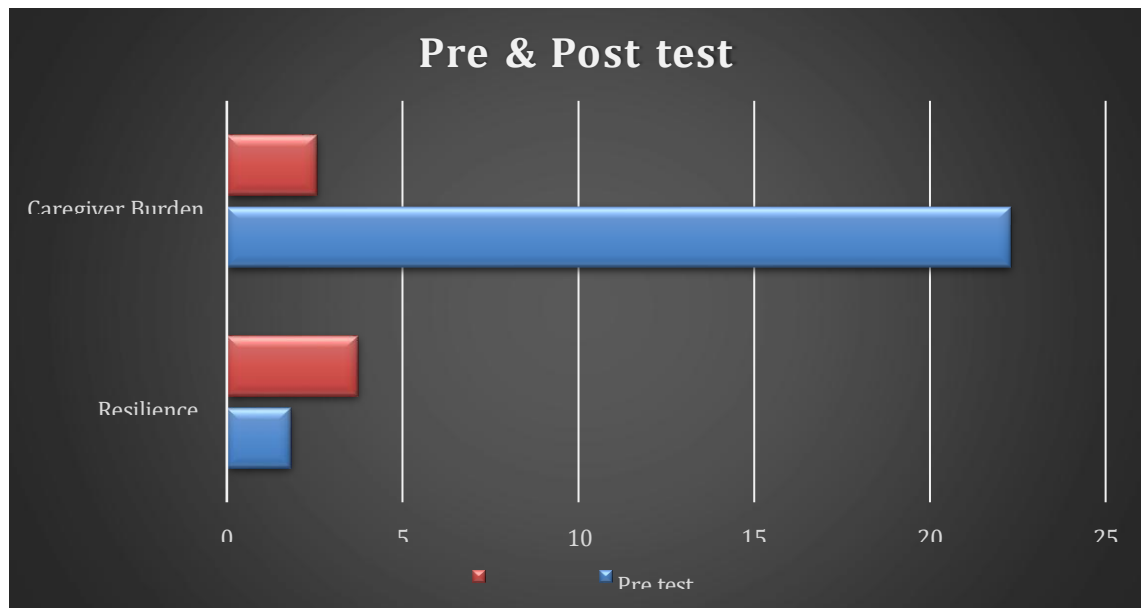
**Table 3. Comparison of Pre-test and Post-test Scores on Caregiver Burden and Resilience (N = 30)**

Variable	Test	Mean	SD	t-value	p-value
Caregiver Burden	Pre-test	62.40	6.85	7.92	< .01
	Post-test	48.10	5.92		
Resilience	Pre-test	16.30	3.10	6.45	< .01
	Post-test	21.80	3.45		

Source: Primary Data

Paired-samples *t*-test analysis revealed statistically significant differences between pre-test and post-test scores for both caregiver burden and resilience. Caregiver burden scores showed a significant reduction from pre-test to post-test ( $t = 7.92, p < .01$ ), indicating that the intervention effectively reduced

perceived burden among caregivers. Similarly, resilience scores demonstrated a significant increase from pre-test to post-test ( $t = 6.45, p < .01$ ), confirming the effectiveness of laughter therapy in strengthening psychological resilience. Based on these results, Hypothesis 1 and Hypothesis 2 were both accepted

**Figure 1. Showing the comparison of pre-test and post-test level of Resilience and Caregivers Burden**

## 8. Conclusion

The present study examined the effectiveness of laughter therapy in reducing caregiver burden and enhancing resilience among caregivers of children with ADHD. The findings clearly demonstrate that laughter therapy produced significant psychological benefits in both outcome variables. The observed reduction in caregiver burden supports earlier research indicating that positive emotional interventions help alleviate stress and emotional exhaustion among caregivers (Pienaar & Bester, 2017). Laughter therapy promotes emotional release, relaxation, and positive affect, which together reduce the perceived intensity of caregiving stress. Caregivers who participated in the laughter sessions reported improved emotional comfort and psychological relief, contributing to the observed reduction in burden. The significant improvement in resilience is consistent with positive psychology theory, which emphasizes that positive emotions broaden cognitive and emotional resources and strengthen coping abilities (Fredrickson, 2001). By stimulating

joy, relaxation, and social connection, laughter therapy enhances caregivers' capacity to recover from stress and maintain emotional stability. These findings are also consistent with Sis Çelik and Yaralı (2020), who reported that laughter-based interventions significantly improved resilience and psychological well-being among adults. The present study extends these findings to caregivers of children with ADHD, a group that has received limited intervention-based research attention. Caregivers of children with ADHD often experience persistent behavioral management challenges, social stigma, and emotional fatigue (Olson, 2023). The present results demonstrate that laughter therapy provides an effective, accessible, and culturally adaptable intervention to address these challenges. Overall, the study confirms that laughter therapy is not merely a recreational activity but a structured psychological intervention capable of reducing emotional burden and strengthening resilience among caregivers.

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