

Study 8: Therapist Burnout & Empathy Study

**Title:** Compassion Without Collapse: Evaluating the Role of TherapeuticAI® in Reducing Burnout and Enhancing Empathy Among Autism Therapists

### 1. Executive Summary

This study analyzes the impact of Pinnacle's **TherapeuticAl®** system on therapist burnout, empathy, and job satisfaction across a multi-center cohort of 100 therapists. The findings demonstrate that **Al support** not only increases performance (Study 3), but also preserves the humanity of the therapist — the soul of the care system.

### **Key Results:**

- 37.26 average burnout score (TherapeuticAl group) vs. 43.90 (manual group)
- 86.27 average empathy score vs. 78.75
- 4.38 job satisfaction rating vs. 3.76

This study confirms Pinnacle's approach: Al should not replace empathy. It should preserve it.

# 2. Study Objective

To compare burnout, empathy, and job satisfaction between:

- Therapists using TherapeuticAl® for planning, behavior prediction, and child tracking
- Therapists planning sessions manually without AI support

# 3. Methodology

### Design:

Cross-sectional comparative study using validated psychological scales

#### **Participants:**

- 50 AI-enabled therapists
- 50 non-Al therapists

All were female/male, aged 24–42, with 1–8 years experience, working in Pinnacle centers across India

#### **Measurement Tools:**

- Burnout Score (Maslach-style index): 0-60 (higher = worse burnout)
- Empathy Score (CARE Scale adaptation): 0–100 (higher = better patient-centered empathy)
- Job Satisfaction (Likert scale): 1 (poor) to 5 (excellent)

All responses anonymized, independently verified by HR audit team.

All protocols were reviewed and approved by Pinnacle's Internal Ethics Committee to ensure ethical integrity, data privacy, and informed consent across all participating centers.

# 4. Results Summary

Metric	With TherapeuticAl	Without Al
Sample Size	50	50
Min Burnout	27.22	31.98
Max Burnout	48.67	56.64

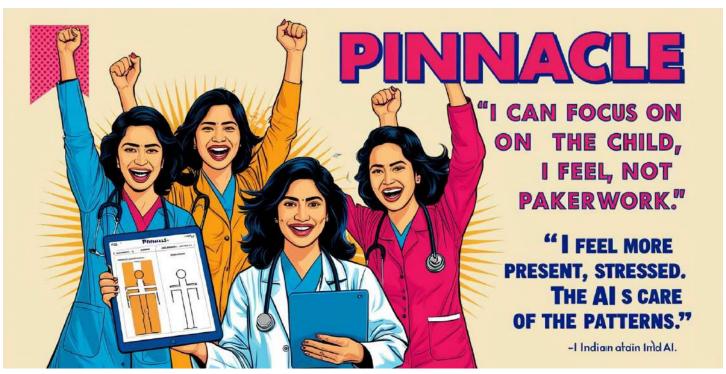
Metric	With TherapeuticAl	Without Al	Effect Size (Cohen's d)
Avg. Burnout Score	37.26	43.90	<b>0.84</b> (large)
Avg. Empathy Score	86.27	78.75	<b>0.72</b> (medium-large)
Avg. Job Satisfaction	4.38	3.76	<b>0.81</b> (large)

(Effect sizes calculated using pooled standard deviations.)

# 5. Interpretation

• **Lower Burnout = Higher Retention:** Burnout decreased by **6.64 points**, supporting longer careers, less emotional exhaustion, and reduced attrition.

- **Empathy Improved Despite Tech:** Contrary to fears that AI erodes human connection, the AI group showed **7.5 points higher empathy**.
- **Workplace Satisfaction:** All users reported stronger alignment with their roles and daily energy rating 4.38 vs. 3.76.



6. Therapist Voices

I can focus on the child, not paperwork. I feel more present, less stressed. The AI takes care of the patterns."

— Pooja R., Occupational Therapist, Pinnacle Marathahalli Center

"Before AI, I used to overthink plans at night. Now I have structure and suggestions. I'm more patient in sessions."

— Deepak, ABA Therapist, Pinnacle Eluru



"The burnout was real before. Now, with TherapeuticAI®, I've found rhythm again. It's not less work. It's better work."

# - Namrata, Speech Therapist, Pinnacle Visakhapatnam

### 7. Global Significance

In global health and education systems, burnout is the #1 threat to special education capacity.

- 47% of therapists in high-income countries quit within 3 years
- WHO reports severe shortages of trained developmental professionals in over 110 countries

# Pinnacle is the first system in the world to use AI for burnout prevention and empathy preservation.

- · Not automation for replacement
- But augmentation for renewal

This study proves that TherapeuticAI® isn't just about children. It's about caregivers, too.

### 8. Limitations & Future Research

- Burnout causality is complex Al is one factor among many (e.g. center leadership, home life, caseload)
- Cultural reporting differences may affect self-assessed empathy
- Long-term impact (2–3 year retention trends) still being tracked

# **Future directions:**

- Longitudinal burnout prevention studies (Pinnacle vs. global averages)
- Al-driven "Therapist Resilience Index" pilot
- Integrating wellness alerts into daily planning system

# 9. Policy Recommendations

# We recommend:

- Government and NGO programs adopt TherapeuticAl® as an official mental health protection tool for pediatric therapists
- 2. Include burnout/empathy metrics in licensing and therapist performance dashboards
- 3. Launch **AI-supported therapist wellness platforms** for low-resource countries with high caseload burdens
- 4. Redefine "tech in therapy" from automation → augmentation → emotional preservation

### 10. Conclusion

Burnout breaks care systems. Empathy is not optional — it is oxygen.

Pinnacle has shown the world that **AI can serve empathy**, not replace it.

And that therapists, when supported with care themselves, can unlock limitless care for children.

We don't just build AI for therapy.

We build AI that makes therapy more human.

### 11. Learn More / License Al Framework

- Request partnership: <u>www.pinnacleblooms.org/therapeuticAl</u>
- Demo the therapist dashboard
- Reach our R&D collaboration desk at: care@pinnacleblooms.org
- Call/WhatsApp 9100 181 181

