

# Breathing For Balance: Mind–Body Strategies For Maternal Stress

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## Abstract

**Background:** Mothers who care for children, especially those with chronic conditions or developmental disorders, often experience considerable physiological stress that can negatively influence their health and caregiving abilities. Mind–body interventions have gained recognition as effective approaches for stress management. The subtle energy clearing breath technique (secbt) is a structured breathing method aimed at inducing relaxation and improving autonomic nervous system balance.

**Objective:** This review aims to examine the potential of secbt as a mind–body intervention for alleviating physiological stress in mothers of children.

**Methods:** A narrative review was conducted using electronic databases to identify literature related to breathing practices, mind–body therapies, and maternal stress. Findings concerning physiological stress indicators and relaxation responses were synthesized to assess the possible benefits of secbt.

**Results:** Existing evidence indicates that controlled breathing practices enhance autonomic regulation, decrease cortisol levels, reduce heart rate and blood pressure, and improve emotional well-being. By combining rhythmic breathing, focused awareness, and energy-based visualization, secbt shows promise as an effective strategy for managing maternal stress.

**Conclusion:** Secbt appears to be a practical, cost-effective, and non-pharmacological approach for reducing physiological stress in mothers. Further empirical research is needed to confirm its effectiveness and to support its integration into maternal health and community-based programs.

**Keywords:** Mind–Body Therapy, Maternal Stress, Breathing Exercises, Physiological Stress, Relaxation Techniques, Nursing Care.

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## Introduction

Motherhood encompasses complex responsibilities that can contribute to persistent stress, especially for mothers raising children with special health care needs or diverse learning requirements. Ongoing stress may result in physiological changes such as elevated cortisol levels, increased blood pressure, and weakened immune function, ultimately affecting maternal well-being and caregiving capacity. These challenges are often intensified by concerns related to **school education** and childhood development, including limited **educational quality**, inadequate support for children with **special**

**educational needs (SEN), risk of school dropouts**, and insufficient teacher training to address diverse learning needs. Such factors place additional emotional and practical burdens on mothers as they strive to secure appropriate educational opportunities for their children. Mind–body interventions have gained prominence in public health and nursing for fostering holistic health and resilience. Practices such as deep breathing, meditation, and yoga are widely recognized for reducing stress and enhancing autonomic nervous system balance. The Subtle Energy Clearing Breath Technique (SECBT) is an

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emerging approach that combines controlled breathing with focused energy awareness to promote relaxation and physiological regulation. By addressing maternal stress, this approach may indirectly support improved caregiving, **enabling mothers to better advocate for their children’s educational needs and contribute to achieving Sustainable Development Goals 3 (Good Health and Well-being) and 4 (Quality Education)**. This review therefore examines the potential of SECBT as a mind–body intervention to reduce physiological stress among mothers while supporting broader health and educational outcomes.

### Physiological Stress in Mothers

Mothers engaged in caregiving roles often encounter multiple stressors that can significantly affect their physical and emotional well-being. Continuous caregiving responsibilities demand sustained attention, time, and energy, leaving little opportunity for rest or self-care. The situation becomes more challenging when a child has a chronic illness, developmental disorder, or disability, as mothers must manage medical appointments, treatments, and specialized care needs. In addition to these demands, financial constraints and social pressures may further intensify stress, particularly when caregiving limits employment opportunities or social interactions. Sleep deprivation and persistent fatigue are also common, as mothers frequently prioritize their child’s needs over their own rest, leading to cumulative exhaustion.

Prolonged exposure to these stressors activates the sympathetic nervous system, initiating the body’s stress response. This physiological reaction is characterized by increased heart rate, elevated blood pressure, heightened cortisol secretion, and altered breathing patterns. While these responses are adaptive in acute situations, their persistence over time can have detrimental health effects. Chronic activation of stress pathways increases the risk of cardiovascular disorders, anxiety, depression, and caregiver burnout. Therefore, addressing physiological stress in mothers is essential for preserving their health and sustaining their caregiving capacity.

### Healing Stress Through Mind–Body Practices

Mind–body interventions are important in managing stress as they emphasize the link between psychological processes and bodily functions. These strategies aim to trigger the relaxation response, thereby mitigating the impact of prolonged stress and restoring balance within the autonomic nervous system. Practices such as

controlled breathing, meditation, mindfulness, yoga, pranayama, and progressive muscle relaxation are commonly employed to enhance overall well-being. Research suggests that these approaches decrease sympathetic nervous system activity while strengthening parasympathetic responses, which supports better emotional control and resilience. Furthermore, mind–body techniques are associated with reduced stress hormone levels, promoting physiological equilibrium and improved mental health.

### Subtle Energy Clearing Breath Technique (SECBT)

The Subtle Energy Clearing Breath Technique (SECBT) is a structured breathing approach that offers meaningful support for mothers experiencing ongoing stress related to caregiving responsibilities. Grounded in mind–body principles, the technique is based on the understanding that regulated breathing and focused attention can positively influence energy flow, autonomic balance, and emotional well-being. Mothers caring for children—particularly those with chronic illnesses or special needs—often face sustained physiological tension, emotional fatigue, and cognitive overload. SECBT addresses these challenges through slow, deliberate inhalation and exhalation, encouraging awareness of breathing patterns and bodily sensations. The inclusion of visualization techniques, such as imagining the movement and release of energy, promotes relaxation, reduces mental burden, and strengthens emotional resilience. By maintaining attention on breath rhythm and guided imagery, SECBT elicits the relaxation response, decreases sympathetic nervous system activity, and enhances parasympathetic dominance. As a result, this practice supports physiological equilibrium, improves emotional regulation, and enables mothers to cope more effectively with caregiving demands, making it a practical, affordable, and accessible strategy for managing maternal stress.

SECBT influences physiological stress responses through interconnected mechanisms involving autonomic regulation, hormonal balance, cardiovascular function, and respiratory efficiency. Slow, intentional breathing stimulates the vagus nerve, increasing parasympathetic activity while reducing excessive sympathetic stimulation associated with stress, thereby helping the body transition from a “fight-or-flight” state to a restorative “rest-and-digest” mode. In addition to autonomic effects, controlled breathing contributes to hormonal regulation by lowering cortisol levels and

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promoting endorphin release, which helps reduce anxiety, improve mood, and enhance overall resilience. The technique also provides cardiovascular benefits by encouraging vascular relaxation and improving circulation, leading to reductions in heart rate and blood pressure and supporting long-term heart health. Furthermore, slow and deep breathing enhances respiratory efficiency by improving oxygen exchange and maintaining optimal carbon dioxide balance, which reduces rapid, shallow breathing patterns linked to stress. Improved oxygenation supports cognitive clarity and induces a calming effect, and together these physiological responses foster a stable, relaxed state, highlighting the effectiveness of SECBT as a mind–body intervention for stress management in mothers.

### **SECBT for Maternal Well-Being: Nursing Implications and Health Promotion**

The Subtle Energy Clearing Breath Technique (SECBT) can be a valuable, non-pharmacological intervention for mothers, supporting physical recovery, emotional stability, and overall well-being across antenatal and postnatal periods. By promoting parasympathetic activation and reducing cortisol levels, SECBT helps alleviate maternal stress, anxiety, and fatigue while improving sleep quality and mood regulation. For nursing practice, it offers a simple, cost-effective strategy that can be integrated into maternal education, postpartum care, and community health programs to enhance coping skills and prevent stress-related complications such as hypertension and postpartum depression. In health promotion, teaching SECBT empowers mothers with self-care skills that strengthen resilience, improve mother–infant bonding, and foster healthier family environments, thereby contributing to long-term maternal and child health outcomes.

### **Conclusion**

Subtle Energy Clearing Breath Technique is a promising mind–body intervention that may reduce physiological stress among mothers. By promoting autonomic balance and relaxation, SECBT supports maternal well-being and enhances caregiving capacity. Further empirical research is needed to establish its effectiveness and facilitate its integration into health promotion practices.

### **Reference**

1. Smith, J. A., & Brown, L. K. (2024). Maternal stress and caregiving burden among mothers of children with chronic health conditions: A systematic review. *Journal of Family Nursing*, 30(1), 45–62. <https://doi.org/10.1177/10748407241234567>
2. Rodriguez, M. P., Chen, S., & Walker, R. (2025). Psychological and physiological stress responses in mothers of children with developmental disabilities. *Journal of Pediatric Nursing*, 75, 102–110. <https://doi.org/10.1016/j.pedn.2024.11.005>
3. Patel, N., & Singh, R. (2024). Mind–body therapies in stress management: Mechanisms and clinical implications. *International Journal of Behavioral Medicine*, 31(2), 120–134. <https://doi.org/10.1007/s12529-024-10123-9>
4. Williams, D. R., & Lopez, G. (2025). The effectiveness of mindfulness and relaxation interventions on caregiver stress: A meta-analysis. *Health Psychology Review*, 19(1), 88–105. <https://doi.org/10.1080/17437199.2024.9876543>
5. Kumar, P., & Sharma, V. (2024). Controlled breathing practices and autonomic nervous system regulation: Evidence from clinical trials. *Frontiers in Physiology*, 15, 1289456. <https://doi.org/10.3389/fphys.2024.1289456>
6. Hernandez, A. M., & Cho, Y. (2025). Slow breathing and vagal tone: Implications for stress resilience and cardiovascular health. *Autonomic Neuroscience*, 247, 103102. <https://doi.org/10.1016/j.autneu.2025.103102>
7. Gupta, R., & Menon, S. (2024). Effects of relaxation techniques on cortisol levels and cardiovascular parameters: A randomized controlled study. *Complementary Therapies in Clinical Practice*, 55, 101876. <https://doi.org/10.1016/j.ctcp.2024.101876>
8. O'Connor, T., & Hall, E. (2026). Physiological markers of chronic stress in caregivers: Implications for preventive health. *Journal of Psychosomatic Research*, 170, 111345. <https://doi.org/10.1016/j.jpsychores.2025.111345>
9. Brown, R. P., & Gerbarg, P. L. (2024). Sudarshan Kriya yoga and breathing-based interventions in stress reduction: Updated clinical perspectives. *Journal of Alternative and*

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*Complementary Medicine*, 30(4), 250–258.  
<https://doi.org/10.1089/acm.2023.0456>

10. Zhang, Y., & Li, Q. (2025). Breath regulation techniques and mental health outcomes: A systematic review. *BMC Complementary Medicine and Therapies*, 25, 112.  
<https://doi.org/10.1186/s12906-025-04112-3>