International Journal of Preventive, Curative & Community Medicine
Volume 11, Issue 3&4 - 2025, Pg. No. 1-8
Peer Reviewed & Open Access Journal

Review Article

Bounce Back Better: Benson's Relaxation Therapy for Post-Cesarean Pain & Stress Management

Pooja Singh[1], Suman Lata[2], Tanima Verma[3], Lokesh Kumar Sharma[4]

[1,4]Student, [2,3]Assistant Professor, KGMU College of Nursing, King George's Medical University, Lucknow, India
DOI: https://doi.org/10.24321/2454.325X.202506

I N F O

Corresponding Author:
Pooja Singh, KGMU College of Nursing, King George's Medical University, Lucknow, India
E-mail Id:
poojasingh7761@gmail.com
Orcid Id:
https://orcid.org/0009-0005-2924-3940
How to cite this article:
Singh P, Lata S, Verma T, Sharma L K. Bounce Back Better: Benson's Relaxation Therapy for Post-Cesarean Pain & Stress Management. Int J Preven Curat Comm Med. 2025;11(3&4):1-8.
Date of Submission: 2025-02-02
Date of Acceptance: 2025-03-22

A B S T R A C T

Cesarean section (C-section) is a common surgical procedure for childbirth, often associated with significant postoperative pain and psychological stress for mothers. Pharmacological pain management is crucial, but complementary and alternative therapies are increasingly explored to enhance recovery and well-being. Benson's Relaxation Therapy (BRT), a mind-body technique rooted in meditation principles, has shown promise in managing pain and stress in various clinical populations. This review examines the existing evidence regarding the effectiveness of BRT in alleviating post-cesarean pain and stress among postnatal mothers. We explore the potential mechanisms of action, summarize findings from relevant studies, discuss limitations, and highlight implications for clinical practice and future research. While the evidence base is still evolving, preliminary findings suggest that BRT may offer a valuable, non-pharmacological approach to support postnatal mothers in their recovery after C-section, potentially reducing pain perception, mitigating stress responses, and promoting overall well-being.

Keywords: Benson's Relaxation Therapy, Relaxation Response, Post-Cesarean Pain, Postnatal Stress, Postpartum Period, Mind-Body Therapies, Complementary Therapies, Maternal Health, Pain Management, Stress Reduction

Introduction

Cesarean section (C-section) rates are rising globally, making it one of the most frequently performed surgical procedures in obstetrics.[1] While often life-saving for both mother and baby, C-section is a major surgery that inevitably leads to postoperative pain and can contribute to psychological stress in the postpartum period.[2] Effective pain management is essential for maternal comfort, early mobilization, breastfeeding initiation, and overall recovery.[3] Furthermore, the postpartum period is already a time of significant physiological and emotional adjustment, and surgical birth can exacerbate stress levels, potentially impacting maternal well-being and mother-infant bonding.[4]

Traditional postoperative pain management primarily relies on pharmacological analgesia, including opioids and non-steroidal anti-inflammatory drugs (NSAIDs).[5] However, these medications can have side effects, including drowsiness, constipation, and potential risks associated with opioid use, particularly for breastfeeding mothers.[6] Therefore, there is growing interest in exploring non-pharmacological approaches to complement conventional pain management and address the multifaceted challenges of postpartum recovery after C-section.

Benson's Relaxation Therapy (BRT), also known as the Relaxation Response, is a mind-body technique developed by Dr. Herbert Benson, based on principles of transcendental

Copyright (c) 2025: Author(s). Published by Advanced Research Publications

meditation.[7] BRT aims to elicit a physiological state of deep relaxation by focusing attention on a repetitive word, sound, phrase, or breath, thereby reducing mental clutter and activating the parasympathetic nervous system.[8] This relaxation response has been associated with numerous physiological benefits, including decreased heart rate, blood pressure, respiratory rate, and muscle tension, as well as reduced levels of stress hormones.[9]

BRT has been investigated for its effectiveness in managing chronic pain conditions, anxiety disorders, and stress-related illnesses.[10, 11] Given its potential to modulate pain perception and stress responses, BRT holds promise as a complementary therapy for postnatal mothers experiencing post-cesarean pain and stress. This review aims to synthesize the available evidence on the effects of BRT on post-cesarean pain and stress in postnatal mothers, examining its potential benefits, limitations, and implications for clinical practice and future research.

Mechanisms of Action

The potential mechanisms by which BRT may alleviate post-cesarean pain and stress are multifaceted and likely involve both physiological and psychological pathways.

Physiological Mechanisms

- **Modulation of Pain Perception:** BRT may influence pain perception through several mechanisms. It can activate the endogenous opioid system, leading to the release of endorphins, which have natural pain-relieving properties.[12] Furthermore, relaxation techniques can alter the central processing of pain signals in the brain, potentially reducing the subjective experience of pain.[13]
- **Regulation of the Stress Response:** BRT directly targets the autonomic nervous system, promoting parasympathetic dominance and counteracting the stress response. By reducing sympathetic nervous system activity, BRT can decrease the release of stress hormones like cortisol and adrenaline, which are known to exacerbate pain perception and contribute to psychological distress.[14]
- **Muscle Relaxation and Reduced Tension:** Post-surgical pain often involves muscle tension and spasm around the incision site. BRT promotes muscle relaxation, which can alleviate pain associated with muscle tightness and improve overall comfort.[15]
- **Improved Sleep Quality:** Postpartum sleep disruption is common and can worsen pain and stress. BRT may improve sleep quality by reducing arousal and promoting a state of calm, potentially indirectly contributing to pain and stress reduction.[16]

Psychological Mechanisms

- **Cognitive Reappraisal of Pain:** BRT can empower individuals to develop a sense of control over their pain experience. By focusing attention away from pain and cultivating a state of mental calmness, BRT may facilitate cognitive reappraisal of pain, reducing its perceived intensity and emotional impact.[17]
- **Stress and Anxiety Reduction:** BRT directly addresses psychological stress and anxiety, which are often intertwined with pain perception. By reducing anxiety and promoting a sense of calm, BRT can indirectly alleviate pain and improve overall emotional well-being in the postpartum period.[18]
- **Enhanced Self-Efficacy and Coping Skills:** Learning and practicing BRT can empower mothers with a non-pharmacological tool to manage their pain and stress independently. This sense of self-efficacy and improved coping skills can contribute to a more positive postpartum experience and enhance psychological resilience.[19]

Evidence from Studies

A literature search was conducted using databases such as PubMed, CINAHL, and Cochrane Library, using keywords related to “Benson’s Relaxation Therapy,” “Relaxation Response,” “Post-Cesarean Pain,” “Postnatal Stress,” and “Postpartum Period.” While research specifically focusing on BRT for post-cesarean pain and stress is still limited, several studies explore the effects of relaxation techniques, including meditation and mindfulness-based interventions, on postpartum pain and stress, which can be extrapolated to understand the potential of BRT.

Studies on Pain Reduction

- **Limited Direct Evidence on BRT for Post-Cesarean Pain:** Direct studies specifically evaluating BRT for post-cesarean pain are scarce. However, research on other relaxation techniques, such as guided imagery and progressive muscle relaxation, has shown promising results in reducing postoperative pain following various surgical procedures, including abdominal surgeries.[20, 21] These findings suggest that BRT, with its focus on relaxation and mind-body connection, could potentially be effective in managing post-cesarean pain.
- **Studies on Meditation and Mindfulness in Postpartum Pain:** Some studies have investigated the use of meditation and mindfulness-based interventions in managing postpartum pain, although not specifically post-cesarean pain. These studies often demonstrate a reduction in pain intensity and pain-related distress in

ISSN: 2454-325X
DOI: https://doi.org/10.24321/2454.325X.202506

postpartum women experiencing general postpartum discomfort.[22, 23] These findings indirectly support the potential of BRT, which shares core principles with meditation, in managing post-cesarean pain.

Studies on Stress and Anxiety Reduction:

- **Emerging Evidence for Stress and Anxiety Reduction with Relaxation Techniques:** Several studies have explored the impact of relaxation techniques, including meditation and mindfulness interventions, on postpartum stress and anxiety. These studies generally indicate that these techniques can effectively reduce postpartum stress, anxiety symptoms, and depressive mood.[24, 25]
- **Potential of BRT for Postpartum Stress:** Given the established efficacy of BRT in reducing stress and anxiety in various populations, it is plausible that BRT could be beneficial for postnatal mothers experiencing postpartum stress, which can be exacerbated by surgical birth. BRT's ability to activate the parasympathetic nervous system and reduce stress hormone levels makes it a promising intervention for managing postpartum psychological distress.
- **Studies Combining Relaxation with Standard Postpartum Care:** Some studies have integrated relaxation techniques, including elements of meditation and mindfulness, into standard postpartum care. These interventions have shown positive effects on maternal mood, stress levels, and overall well-being in the postpartum period.[26, 27] This suggests that incorporating BRT as a complementary therapy alongside standard postpartum care could enhance maternal recovery and well-being after C-section.

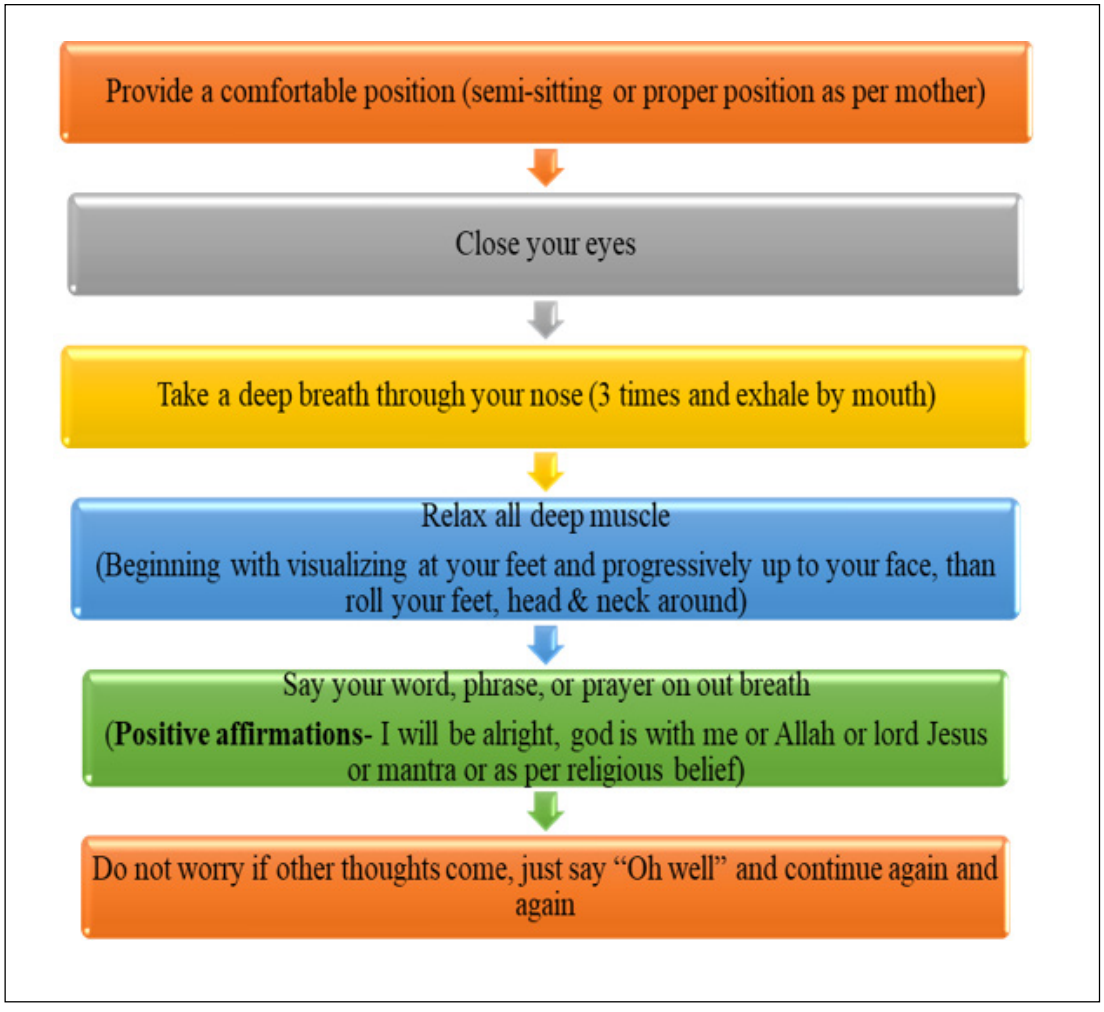

Figure 1.Process of Benson Therapy

(Instruction= practice twice a day as per comfort for at least 10-20 min duration, at any time & in any comfortable position)

ISSN: 2454-325X
DOI: https://doi.org/10.24321/2454.325X.202506

Figure 2.Potential benefits of Benson's Relaxation Therapy for post-caesarean mothers

Pain Management

- **Reduced Pain Perception:** BRT can help manage post-operative pain by reducing stress and tension, which can amplify pain signals. By inducing a state of relaxation, it can help mothers cope with pain more effectively and potentially reduce the need for pain medication (though medication should be taken as prescribed by their doctor).
- **Muscle Relaxation:** Post-surgery, mothers often experience muscle tension due to pain, stress, and the physical changes of childbirth. BRT promotes muscle relaxation, which can ease discomfort around the incision site and in other areas of the body.

Emotional Well-being and Stress Reduction

- **Reduced Anxiety and Stress:** The postpartum period, especially after a C-section, can be a time of significant stress and anxiety. Mothers are recovering from major surgery, adjusting to motherhood, dealing with sleep deprivation, and potentially experiencing hormonal shifts. BRT helps activate the parasympathetic nervous system (the "rest and digest" system), counteracting the stress response and reducing anxiety.
- **Improved Mood:** By reducing stress and promoting relaxation, BRT can contribute to a more positive mood and potentially help with feelings of overwhelm or sadness that are common in the postpartum period.
- **Coping with Postpartum Blues and Potential Depression:** While BRT is not a treatment for postpartum depression, it can be a valuable tool for managing symptoms and improving emotional regulation. It can help mothers feel more grounded and in control during a vulnerable time.
- **Addressing Birth Trauma or Disappointment:** For mothers who had an unplanned C-section or experienced birth trauma, BRT can be a gentle way to process emotions and promote healing. It offers a sense of calm and self-soothing that can be beneficial in emotional recovery.

Improved Sleep Quality

- **Combating Sleep Deprivation:** New mothers are notoriously sleep-deprived. Pain, anxiety, and the demands of a newborn can further disrupt sleep after a C-section. BRT can help calm the mind and body, making it easier to fall asleep and improve sleep quality, even in short bursts.
- **Promoting Rest and Recovery:** Even if sleep is fragmented, practicing BRT can provide periods of deep rest, which is crucial for physical and emotional recovery after surgery.

Physiological Benefits

- **Lowering Blood Pressure and Heart Rate:** Stress can elevate blood pressure and heart rate, which is not ideal during postpartum recovery. BRT helps regulate these vital signs, promoting cardiovascular health.
- **Reducing Stress Hormones:** BRT has been shown to decrease levels of stress hormones like cortisol. Lowering stress hormones can support the immune system, which is important for wound healing and overall recovery after surgery.
- **Improved Digestion:** Stress can negatively impact digestion. BRT can help regulate the digestive system, potentially alleviating common postpartum digestive issues.

Enhanced Recovery

- **Promoting Wound Healing:** By reducing stress and improving overall physiological function, BRT may indirectly support the body's natural healing processes, including wound healing at the incision site.
- **Increased Energy Levels:** While BRT itself doesn't provide energy, reducing stress and improving sleep can lead to increased energy levels over time, helping mothers cope with the demands of newborn care and recovery.

Other benefits

- **Non-Pharmacological and Non-Invasive:** BRT offers a non-pharmacological and non-invasive approach to pain and stress management, minimizing the risks associated with medication side effects, particularly important for breastfeeding mothers.
- **Self-Management and Empowerment:** BRT is a self-management technique that can be easily learned and practiced independently by mothers at home,

ISSN: 2454-325X
DOI: https://doi.org/10.24321/2454.325X.202506

empowering them to actively participate in their recovery process.

- **Cost-Effective and Accessible:** BRT is a relatively low-cost and accessible intervention, requiring minimal resources and can be taught through various modalities, including audio recordings, online resources, and group sessions.
- **Potential for Long-Term Benefits:** Regular practice of BRT may not only provide immediate relief from pain and stress but also cultivate long-term coping skills and enhance overall well-being beyond the postpartum period.
- **Integration with Standard Care:** BRT can be easily integrated into standard postpartum care protocols as a complementary therapy, enhancing the holistic approach to maternal recovery.

Limitations and Future Research Directions

- **Limited Direct Evidence on BRT for Post-Cesarean Pain and Stress:** The primary limitation is the scarcity of studies specifically investigating the effects of BRT on post-cesarean pain and stress. More rigorous, well-designed randomized controlled trials (RCTs) are needed to directly evaluate the efficacy of BRT in this population.
- **Heterogeneity of Relaxation Techniques:** Studies often use various types of relaxation techniques, making it challenging to isolate the specific effects of BRT. Future research should clearly define and standardize BRT protocols to ensure consistency and comparability across studies.
- **Methodological Rigor and Blinding Challenges:** RCTs in mind-body interventions face challenges in blinding participants and practitioners. Future research should strive to employ robust methodologies to minimize bias and enhance the validity of findings.
- **Need for Physiological Outcome Measures:** While subjective pain and stress measures are important, incorporating objective physiological outcome measures, such as cortisol levels, heart rate variability, and inflammatory markers, would strengthen the evidence base and provide a deeper understanding of the mechanisms of action of BRT in the post-cesarean context.
- **Long-Term Follow-Up Studies:** Future research should include long-term follow-up assessments to evaluate the sustained effects of BRT on maternal well-being, pain management, and stress resilience beyond the immediate postpartum period.
- **Exploration of Optimal BRT Protocols:** Further research is needed to determine the optimal duration, frequency, and delivery methods of BRT interventions for post-cesarean mothers to maximize its effectiveness and feasibility in clinical practice.
- **Comparative Effectiveness Research:** Studies comparing BRT to other non-pharmacological interventions (e.g., massage, acupuncture) and to standard pharmacological pain management would be valuable to determine the relative effectiveness of BRT and guide clinical decision-making.

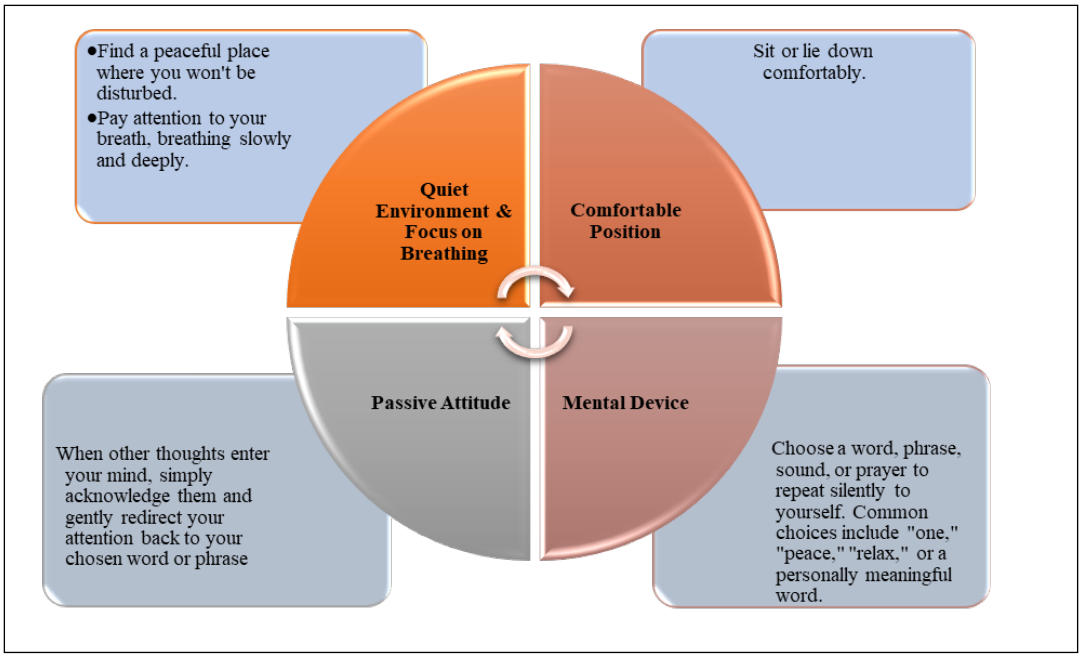

FIgure 3.How Benson's Relaxation Technique is practiced

ISSN: 2454-325X
DOI: https://doi.org/10.24321/2454.325X.202506

How Benson's Relaxation Technique is practiced

Nursing role in implementation of Benson relaxation therapy-

Implementing Benson's Relaxation Therapy for a post-cesarean mother involves a multifaceted nursing role focused on creating a supportive environment, educating the mother, guiding her through the technique, monitoring her response, and ensuring the therapy is integrated into her overall postpartum care plan. Here's a breakdown of nursing responsibilities during implementation:

Assessment and Preparation

Assess Patient Suitability

- **Medical History:** Review the mother's medical history, including any contraindications to relaxation techniques (rare, but consider severe anxiety disorders where relaxation might initially increase anxiety).
- **Pain Level:** Assess the mother's current pain level using a pain scale. Relaxation therapy is an adjunct to pain management, not a replacement for prescribed analgesia, especially in the immediate post-operative period. Understand that pain can hinder relaxation initially.
- **Stress and Anxiety Levels:** Evaluate the mother's perceived stress, anxiety, and emotional state related to childbirth, surgery, and postpartum recovery. Benson's Relaxation is particularly helpful for stress and anxiety reduction.
- **Understanding and Willingness:** Gauge the mother's understanding of relaxation therapy and her willingness to participate. Address any misconceptions or concerns.
- **Physical Comfort:** Assess the mother's physical comfort and positioning. Post-cesarean mothers may have limited mobility and discomfort at the incision site. Ensure she can find a comfortable position for relaxation.
- **Baseline Vital Signs:** Record baseline vital signs (heart rate, respiratory rate, blood pressure) to monitor the physiological effects of relaxation.

Create a Conducive Environment

- **Privacy:** Ensure a private and quiet space free from interruptions. This could be her hospital room or a designated relaxation area if available.
- **Comfort:** Adjust the room temperature, dim the lights if possible, and minimize noise.
- **Positioning:** Help the mother find a comfortable position, typically semi-Fowler's or side-lying with pillows for support, especially around the incision site. Ensure she is not straining her abdominal muscles.
- **Minimize Distractions:** Turn off unnecessary equipment alarms (if clinically safe and appropriate), silence phones, and minimize foot traffic.

Education and Instruction

Explain Benson's Relaxation Therapy

Clearly explain what Benson's Relaxation Therapy is, how it works, and its potential benefits for post-cesarean mothers. Emphasize:

- **Stress Reduction:** It helps reduce stress hormones and promote a sense of calm.
- **Pain Management:** It can complement pain medication and help manage pain perception by shifting focus and promoting muscle relaxation.
- **Improved Sleep:** Relaxation can improve sleep quality, which is crucial for postpartum recovery.
- **Emotional Well-being:** It can help manage postpartum blues and anxiety.
- **Simple and Accessible:** It's a simple technique that can be learned quickly and practiced anywhere, anytime.

Teach the Technique

Provide clear and step-by-step instructions on how to perform Benson's Relaxation Therapy. Typically, this involves:

- **Choosing a Focus Word or Phrase:** Suggest simple words like "peace," "calm," "relax," or "one." The word should be personally meaningful and easy to repeat.
- **Passive Attitude:** Explain the importance of a passive attitude, allowing thoughts to come and go without judgment or engagement. This is often the most challenging part for beginners.
- **Comfortable Position:** Reiterate the importance of a comfortable and relaxed posture.
- **Quiet Environment:** Emphasize the need for a quiet setting initially to learn the technique.
- **Repetition and Focus:** Guide her to close her eyes (if comfortable) and gently repeat the chosen word or phrase silently or aloud with each exhale.
- **Duration:** Start with short sessions (e.g., 10-20 minutes) and gradually increase as comfort and proficiency improve.

Demonstrate the Technique

Model the technique yourself if comfortable, showing slow, deep breaths and a relaxed posture. This can help the mother visualize and understand the process.

Provide Written or Visual Aids

Offer handouts, brochures, or online resources that summarize the steps of Benson's Relaxation Therapy for the mother to refer to later.

Guiding and Facilitating the Therapy

Guide the First Session

Lead the mother through her first relaxation session. Speak in a calm, soothing voice, guiding her through each step:

ISSN: 2454-325X
DOI: https://doi.org/10.24321/2454.325X.202506

- "Find a comfortable position..."
- "Close your eyes gently..."
- "Begin to notice your breath..."
- "Choose your focus word..."
- "Repeat the word silently or aloud with each exhale..."
- "If thoughts come, gently acknowledge them and return your focus to your word..."
- "Continue for 10-20 minutes..."
- "When you are ready, slowly open your eyes and take a few moments to reorient yourself."

Offer Encouragement and Support

Reassure the mother that it's normal for thoughts to wander, especially initially. Encourage persistence and practice.

Address Questions and Concerns

Be available to answer any questions the mother may have during or after the session. Address any challenges she might be facing, such as difficulty focusing or feeling restless.

Adapt to Individual Needs

Tailor the guidance to the mother's individual needs and preferences. Some mothers may prefer guided imagery along with the focus word, while others may prefer silence after the initial instructions.

Monitoring and Evaluation

Observe for Relaxation Response

During and after the session, observe for signs of relaxation, such as:

- **Decreased Respiratory Rate:** Slower and deeper breathing.
- **Decreased Heart Rate:** Slower pulse.
- **Reduced Muscle Tension:** Relaxed facial muscles, shoulders, and limbs.
- **Reported Pain Reduction:** Subjective reports of decreased pain intensity.
- **Increased Calmness:** Verbal and nonverbal cues of reduced anxiety and stress.

Monitor Vital Signs

If appropriate, monitor vital signs (heart rate, respiratory rate, blood pressure) again after the session to objectively assess the physiological effects of relaxation.

Assess Subjective Experience

After the session, ask the mother about her experience. Inquire about:

- **Level of Relaxation:** How relaxed did she feel?
- **Pain Relief:** Did she notice any change in her pain level?
- **Ease of Technique:** Was it easy to follow the instructions?
- **Thoughts and Distractions:** Did she experience wandering thoughts? How did she manage them?
- **Overall Benefit:** Did she find the session helpful?

Document Findings

Document the session, including:

- **Date and Time of Session:**
- **Duration of Session:**
- **Mother's Response:** Both objective observations and subjective reports.
- **Any Challenges or Modifications:**
- **Plan for Future Sessions:**

Integration into Postpartum Care Plan

- **Encourage Regular Practice:** Emphasize the benefits of regular practice, even for short periods, multiple times a day. Suggest incorporating relaxation into her daily routine, such as before breastfeeding, when feeling stressed, or before sleep.
- **Provide Resources for Continued Practice:** Offer information about relaxation apps, guided meditation recordings, or community resources that can support her ongoing practice at home.
- **Involve Family/Support Persons:** Educate family members or support persons about Benson's Relaxation Therapy and encourage them to support the mother's practice and create a relaxing environment at home.
- **Follow-up and Reinforce:** During postpartum follow-up appointments, inquire about the mother's continued use of relaxation techniques and reinforce its benefits. Address any challenges she may be encountering and offer ongoing support.

Implications for Clinical Practice

Despite the need for further research, the existing evidence and the potential benefits of BRT suggest that it can be considered as a valuable complementary therapy for postnatal mothers recovering from C-section.

- **Integration into Postpartum Care:** Healthcare providers can consider incorporating BRT education and training into routine postpartum care protocols for mothers who have undergone C-section. This could include providing information about BRT, offering guided relaxation sessions, and providing resources for continued practice at home.
- **Adjunct to Pharmacological Pain Management:** BRT should not be considered a replacement for necessary pharmacological pain management but rather as a complementary approach to enhance pain relief and reduce reliance on medications, particularly opioids.
- **Personalized Approach:** BRT can be tailored to individual preferences and needs. Healthcare providers should assess mothers' preferences and provide

ISSN: 2454-325X
DOI: https://doi.org/10.24321/2454.325X.202506

guidance on different BRT techniques and resources to facilitate personalized implementation.

- **Education and Training for Healthcare Professionals:** Healthcare professionals, including nurses, midwives, and physicians, should be educated about BRT and its potential benefits in postpartum care to effectively integrate it into their practice and provide informed guidance to mothers.

Conclusion

Post-cesarean pain and stress are significant challenges for postnatal mothers. While pharmacological pain management remains essential, Benson's Relaxation Therapy offers a promising non-pharmacological approach to complement conventional care and support maternal recovery. Although direct evidence specifically on BRT for post-cesarean pain and stress is still evolving, preliminary findings and the established efficacy of relaxation techniques in related contexts suggest that BRT can potentially reduce pain perception, mitigate stress responses, and promote overall well-being in postnatal mothers after C-section. Integrating BRT into postpartum care protocols may empower mothers with a valuable self-management tool, enhance their recovery experience, and contribute to a more positive postpartum period.

Conflicts of Interests: None

Source of Funding: None

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process: None

References

1. World Health Organization. (2018). WHO recommendations for intrapartum care for a positive childbirth experience. Geneva: World Health Organization.
2. Eisenach, J. C. (2018). Postoperative pain following cesarean section. Pain Management, 8(5), 345-356.
3. Dahl, J. B., & Kehlet, H. (2011). Postoperative pain management. British Journal of Anaesthesia, 107(suppl 1), i108-i119.
4. Figueiredo, B., Conde, A., Pacheco, A., Costa, R., & Pais, A. (2013). Psychological distress in women undergoing cesarean section: A systematic review. Journal of Psychosomatic Obstetrics & Gynecology, 34(2), 53-64
5. Macones, G. A., Caughey, A. B., Wood, S. L., Wrench, I. J., Huang, J., Norman, M., ... & Society for Maternal-Fetal Medicine. (2018). Guidelines for operative vaginal delivery. American Journal of Obstetrics and Gynecology, 218(1), 1-12.
6. Benson, H. (1975). The relaxation response. New York: William Morrow and Company.
7. Dusek, J. A., Chang, B. H., & Benson, H. (2008). The relaxation response: Physiology, clinical applications, and behavioral aspects. Behavioral Medicine, 34(2), 67-77.
8. Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. Journal of Psychosomatic Research, 57(1), 35-43.
9. Reiner, K. (2010). The relaxation response: A review and synthesis of research. Journal of Holistic Nursing, 28(4), 262-275.
10. Chrousos, G. P. (2009). Stress and disorders of the stress system. Nature Reviews Endocrinology, 5(7), 374-381.
11. Smith, J. E., Richardson, J., Hoffman, C., & Pilkington, K. (2014). Mindfulness-based interventions for stress reduction in people with chronic diseases: A systematic review and meta-analysis. Journal of Psychosomatic Research, 76(1), 1-10.
12. Byrne, B. M., Hauck, Y. L., Kildea, S., & Fenwick, J. (2016). Mindfulness-based childbirth and parenting education: A systematic review and meta-analysis. BMC Pregnancy and Childbirth, 16(1), 18.

ISSN: 2454-325X
DOI: https://doi.org/10.24321/2454.325X.202506