

Effectiveness of Meditation in Stress Reduction Among Adults: A Narrative Review

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Abstract :

Background: Stress is a common psychological and physiological response to challenging or demanding circumstances. Persistent stress may adversely affect emotional well-being, sleep, occupational functioning, interpersonal relationships and overall quality of life. Meditation has increasingly been recognized as a complementary non-pharmacological approach for managing psychological stress among adults. Stress is a multidimensional phenomenon involving psychological, behavioral and physiological responses to perceived demands or challenges. A certain degree of stress may support adaptation and performance; however, persistent or excessive stress may adversely affect psychological well-being, sleep, interpersonal functioning and occupational performance. Prolonged stress has also been associated with a range of physical and mental health concerns, making effective stress-management strategies an important component of health promotion.

Keywords: Meditation; Stress; Mindfulness; Mindfulness-Based Stress Reduction; Adults; Psychological Well-being; Stress Management; Mental Health.

INTRODUCTION

Adults may experience stress from multiple sources, including occupational responsibilities, financial concerns, family responsibilities, interpersonal difficulties, academic demands, caregiving responsibilities and changes in health status. The effects of stress may be particularly relevant in occupations characterized by high workload and emotional demands, such as healthcare and education.¹

Meditation is a broad term referring to practices that cultivate attention, awareness, emotional regulation or a particular mental state. Contemporary research has increasingly focused on mindfulness meditation and structured interventions such as Mindfulness-Based Stress Reduction (MBSR). MBSR combines mindfulness meditation with related practices and has been investigated among both clinical and non-clinical populations.²

Earlier evidence suggested that MBSR may be beneficial for stress management among healthy individuals.^{3,4} Chiesa

and Serretti reported evidence of stress reduction among healthy people receiving MBSR, although they also emphasized limitations in the quality and quantity of available evidence.⁵

The workplace is another important context for meditation research. Employees may experience occupational stress due to workload, time pressure, job demands, interpersonal difficulties and limited recovery opportunities. Meta-analytic evidence has reported beneficial effects of workplace mindfulness interventions on stress, anxiety, psychological distress, well-being and sleep.⁶ More recent evidence involving 132 randomized controlled trials and 23,080 employees also reported improvements in perceived stress and several mental health outcomes, although the authors emphasized heterogeneity, risk of bias and limited certainty for several outcomes.³

Therefore, a narrative review of the available evidence is useful for understanding how meditation may contribute to

stress reduction among adults, the possible mechanisms involved, and the limitations that should be considered when interpreting the existing literature.

NEED FOR THE REVIEW

Stress has become an important concern in adult health and well-being because of its potential effects on psychological, behavioral and physical functioning. Although pharmacological treatment may be appropriate for specific mental health conditions, many adults seek accessible, low-cost and non-pharmacological approaches for managing everyday stress.

Meditation is increasingly used in healthcare, educational institutions, workplaces and community settings. However, different forms of meditation vary in their theoretical basis, duration, frequency, delivery method and level of instructor involvement.

OBJECTIVE OF THE REVIEW

The objective of this narrative review was to examine the available evidence regarding the effectiveness of meditation in stress reduction among adults.

Specific objectives were:

1. To describe the concept and major sources of stress among adults.
2. To describe major forms of meditation used for stress management.
3. To examine evidence regarding meditation and perceived stress.
4. To examine the effects of meditation on anxiety, psychological distress and emotional well-being.
5. To explore evidence regarding physiological responses associated with meditation.
6. To examine the application of meditation in workplace and healthcare settings.

REVIEW METHODOLOGY

- **Review Design:** A narrative review design was used to synthesize published evidence concerning meditation and stress reduction among adults.
- **Literature Sources:** Relevant literature was identified primarily through PubMed/MEDLINE and peer-reviewed scientific literature. Systematic reviews, meta-analyses and randomized controlled trials were given particular consideration because they provide higher-level evidence concerning intervention effectiveness.
- **Search Terms:** The following terms and combinations were considered during the literature search:
 - "Meditation"
 - "Mindfulness meditation"
 - "Mindfulness-Based Stress Reduction"
 - "MBSR"
 - "Stress"
 - "Psychological stress"
 - "Perceived stress"
 - "Stress reduction"
 - "Adults"
 - "Psychological well-being"

- "Workplace stress"
- **Selection of Literature:** Literature was considered relevant when it:
 - examined meditation or mindfulness-based interventions;
 - included adult participants;
 - reported stress or stress-related psychological outcomes;
 - was published in a peer-reviewed scientific journal; and
 - provided information relevant to stress reduction, psychological well-being or physiological stress responses.
- **Understanding Stress in Adults:** Stress may be understood as a response that occurs when individuals perceive that environmental or psychological demands exceed their coping resources. The experience of stress is influenced by individual characteristics, social circumstances, previous experiences and available coping strategies.
- **Concept of Meditation:** Meditation encompasses a variety of practices intended to cultivate attention, awareness, concentration, emotional regulation or a particular mental state.
- **Mindfulness Meditation:** Mindfulness meditation involves intentionally attending to present-moment experiences, such as breathing, bodily sensations, thoughts or emotions, while maintaining an attitude of openness and non-judgment.
- **Mindfulness-Based Stress Reduction:** MBSR is a structured mindfulness-based program that commonly incorporates mindfulness meditation, body awareness and related practices. It has been extensively studied for stress management.
- **Transcendental Meditation:** Transcendental Meditation is a mantra-based meditation practice in which practitioners use a specific mantra to facilitate a state of relaxed attention.
- **Loving-Kindness and Compassion Meditation:** These practices emphasize the cultivation of kindness, compassion and positive attitudes toward oneself and others. Evidence has also examined their potential effects on workplace stress and psychological well-being.⁷
- **Breathing-Based Meditation:** Breathing-focused practices direct attention toward the natural or controlled breathing process. These techniques may be used as brief practices for relaxation and emotional regulation.
- **Meditation and Perceived Stress:** Perceived stress represents an individual's subjective assessment of how stressful or uncontrollable their circumstances appear to be. It is one of the most frequently examined outcomes in meditation research.
- **Meditation and Psychological Distress:** Psychological distress may include symptoms of tension, worry, emotional discomfort and difficulty coping with everyday demands.
- **Meditation and Anxiety:** Stress and anxiety are related but distinct concepts. Stress generally involves a

response to identifiable or perceived demands, whereas anxiety may involve excessive worry or apprehension that can persist beyond a specific stressor. Meditation-based interventions have been studied extensively in relation to anxiety. Meta-analytic evidence suggests that mindfulness interventions can improve anxiety symptoms in various populations.⁸

Meditation and Emotional Well-being: Emotional well-being includes positive psychological functioning, life satisfaction, resilience and the ability to respond adaptively to challenges. Loving-kindness and compassion meditation has also been examined in workplace populations. A meta-analysis of 21 employee trials reported reductions in stress and burnout alongside improvements in mindfulness, self-compassion and mental health.⁷

Meditation and Occupational Stress: Work-related stress is a major concern for many adults. Occupational stress may arise from excessive workload, limited autonomy, interpersonal conflict, long working hours, inadequate recovery and organizational pressures. Another systematic review and meta-regression involving 91 eligible studies and more than 4,900 participants found improvements in stress, well-being, mental health and several work-related outcomes following mindfulness-based or mindfulness-informed workplace interventions. However, the authors noted heterogeneity and risk of bias and found that longer-term effects were less consistently established.⁹

Meditation Among Healthcare Professionals: A systematic review and meta-analysis specifically examining mindfulness-based interventions among healthcare professionals found that such interventions had potential to reduce stress. However, the authors highlighted methodological limitations, including small sample sizes, evidence of publication bias and limited long-term follow-up.¹⁰

DURATION AND PRACTICE OF MEDITATION

The available literature includes interventions ranging from brief guided practices to structured multi-week programs.

MBSR is commonly delivered as a structured program over several weeks, while other meditation interventions may involve shorter daily practices. The evidence does not establish a single universally optimal duration for stress reduction.

Intervention adherence is also important. Individuals who practice regularly may experience different outcomes from those who participate inconsistently. However, adherence is not always measured or reported consistently across studies.

Digital and online meditation programs may increase accessibility because individuals can practice at home or during work breaks. The 2026 review of non-clinical adults reported effects across different delivery modalities, suggesting that meditation may be adaptable to multiple settings.²

MEDITATION AS A COMPLEMENTARY STRESS-

MANAGEMENT STRATEGY

Meditation should be considered one component of a broader stress-management approach. It is also important to recognize that stress is not always caused by individual coping deficits. Occupational conditions, financial circumstances, family responsibilities and social environments can contribute substantially to stress. Consequently, interventions addressing environmental causes may be necessary alongside individual practices.⁶

DISCUSSION

The findings of Khoury et al. provide substantial early evidence from healthy adults, with 29 studies and 2,668 participants showing moderate effects of MBSR on stress-related outcomes.¹ Importantly, the authors also reported substantial heterogeneity, suggesting that intervention characteristics and methodological differences influence outcomes.⁷

The evidence also suggests that meditation may have broader benefits beyond stress reduction, including improvements in anxiety, emotional well-being, resilience and sleep. However, these outcomes should not be interpreted as proof that meditation independently treats all psychological conditions.⁸

IMPLICATIONS FOR NURSING PRACTICE

1. Nurses can use brief mindfulness or meditation practices as part of personal stress-management routines.
2. Nursing professionals can be educated about evidence-based meditation techniques.
3. Healthcare institutions may incorporate meditation or mindfulness sessions into employee wellness programs.
4. Individuals experiencing severe or persistent psychological symptoms should be referred for appropriate professional assessment rather than relying solely on meditation.⁹

IMPLICATIONS FOR NURSING EDUCATION

- demonstrate brief breathing-based meditation;
- incorporate stress-management sessions into student wellness programs;
- encourage reflective practice;
- provide education regarding healthy coping mechanisms; and
- evaluate students' knowledge and attitudes regarding evidence-based stress-management approaches.¹⁰

IMPLICATIONS FOR NURSING RESEARCH

1. Effectiveness of standardized meditation programs among nursing students.
2. Effects of meditation on occupational stress among staff nurses.
3. Long-term adherence to meditation practices.
4. Comparison of different meditation techniques.
5. Effects of meditation on physiological stress indicators.¹¹

RECOMMENDATIONS

Based on the reviewed literature, the following recommendations can be made:

- Meditation may be considered as a complementary strategy for adult stress management.
- Healthcare and educational institutions may consider structured mindfulness programs as part of broader wellness initiatives.
- Meditation interventions should preferably be delivered using clearly defined and reproducible protocols.
- Future studies should use larger samples and appropriate active control groups.
- Future research should investigate which types and durations of meditation are most suitable for different adult populations.¹²

CONCLUSION

Meditation should be viewed as a complementary stress-management strategy rather than a standalone solution. Its potential benefits may arise through improved attention regulation, emotional regulation, acceptance, self-awareness and reduction in repetitive negative thinking. Further high-quality research using standardized interventions, objective measures and long-term follow-up is required to clarify the magnitude, mechanisms and sustainability of these effects.¹³

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