



A regular feature of the *American Journal of Critical Care*, Clinical Evidence Review unveils available scientific evidence to answer questions faced in contemporary clinical practice. It is intended to support, refute, or shed light on health care practices where little evidence exists. To send an eLetter or to contribute to an online discussion about this article, visit [www.ajconline.org](http://www.ajconline.org) and click "Respond to This Article" on either the full-text or PDF view of the article. We welcome letters regarding this feature and encourage the submission of questions for future review.

## THE ROLE OF MINDFULNESS IN ENHANCING SELF-CARE FOR NURSES

By Margo Halm, RN, PhD, NEA-BC

**"C**are for yourself so you can care for others" . . . an age-old adage that is easily forgotten in our jam-packed personal and professional lives.

As caregivers, nurses have been socialized to care for others and thus often prioritize their needs as second. Self-care remains vital for nurses to ease the detrimental effects of stress in the constantly and rapidly changing health care environment and to prevent progression of those effects to burnout, which can have devastating consequences for nurses and those under their care.<sup>1-3</sup> With the growing interest in whole-person-centered care, nursing leaders in health care organizations are paying more attention to cultivating practice environments that support similar person-centric principles for nursing staff, interprofessionals, and other employees.<sup>1,4,5</sup>

Many integrative approaches support self-care and enhance resiliency. Mindfulness, one integrative approach, has demonstrably improved clinical outcomes in diverse patient populations, including healthy persons. As expert Jon Kabat-Zinn<sup>6</sup> explains, mindfulness is "what arises when you pay attention, on purpose, in the present moment, non-judgmentally . . . And what arises is nothing more than the awareness itself." Thus, mindfulness involves developing an intentional awareness that is open and accepting, allowing oneself to respond rather than react to situations.<sup>7-9</sup> To explore this integrative modality, the PICO (problem, intervention, comparison, outcome) question of interest for this evidence synthesis is, What effect do mindfulness programs have on whole-person (biopsychosocial) outcomes of nurses?

### Method

The search strategy involved the Cumulative Index to Nursing and Allied Health Literature (CINAHL) and MEDLINE, supplemented by hand-searching bibliographies. Key words included *mindfulness*, *mindfulness-based stress*

*reduction (MBSR)*, *nurses*, and *self-care*. The search was limited to research in approximately the past 10 years.

### Results

Eleven studies were retrieved (Table 1). Of these, 5 were randomized controlled trials, 1 was a nonrandomized trial, and 5 were observational studies. Mindfulness interventions ranged from 1- or 2-day workshops to 4- or 8-week programs with 30-minute to 2-hour sessions each week. Intervention components included (1) body scan: monitoring of body to increase awareness of sensations, (2) sitting meditation: mindful attention to breathing with nonjudgmental awareness of thoughts and distractions in the mind, (3) Hatha yoga: breathing with gentle stretching, and (4) intentional activation of loving kindness, gratitude, and self-compassion. Most MBSR programs incorporated daily home practice for 10 to 30 minutes a day. Two studies integrated mind-body interventions into the daily shift routine via a brief 5-minute MBSR session before the shift<sup>17</sup> or a 1-hour weekly group session on the unit from 2 PM to 3 PM.<sup>20</sup>

The nurse outcomes evaluated were focused on physiological states and symptoms, psychological symptoms, burnout, work or life satisfaction, mindfulness awareness, and sense of coherence (a psychological dimension that includes perceptions of comprehensibility, manageability, and meaningfulness). MBSR program feasibility was evaluated through participation rates, as well as qualitative reports of enablers and barriers. Overall, improvement in physiological and psychological well-being was evident. Physiologically, nurses reported increased relaxation states and fewer physical symptoms after MBSR.<sup>15,16</sup> Stress reduction was noted in both physiological and psychological outcomes. Not only was the salivary amylase level lower at 8 weeks in 1 of the 2 studies that measured this biologic marker of stress, but nurses' self-reports of negative emotional reactivity to stress, anxiety, depression, or interference with social functioning were also lower at 4 and 8 weeks.<sup>12,14-18</sup> In many studies, mindfulness increased attention awareness,

**Table 1**  
Evidence summary on mindfulness for self-care

Reference	Design and intervention (N, sample)	Symptoms, physical/psychological	Findings				Level of evidence
			Burnout	Work or life satisfaction	Mindful awareness/compassion/coherence	MBSR feasibility	
Cohen-Katz et al <sup>10</sup>	RCT 8-week stress management program with mindfulness Experimental group with wait list control group N=27 direct care nurses	Psychological distress reduced in both groups but changes NS	Emotional exhaustion decreased MBSR group <sup>a</sup> Personal accomplishment increased MBSR group <sup>b</sup> Depersonalization less in MBSR group but change NS (P= .06)		Attention awareness increased in MBSR group after intervention <sup>c</sup>		B
Galantino et al <sup>11</sup>	Observational (pre/post) 8-week MBSR (2 h/wk), followed by 30-min daily practice N=84 direct care and administrative nurses	Salivary cortisol changes NS/total POMS score increased <sup>a</sup>	Emotional exhaustion decreased <sup>c</sup> Depersonalization reduced but change NS (P= .08)				C
Shapiro et al <sup>12</sup>	RCT Experimental group with wait list control group 8-week MBSR (2 h/wk) N=28 nurses and inter-professionals	Mean stress reduction 27% in MBSR group vs 7% in control group <sup>a</sup>		Greater life satisfaction in MBSR group but NS (P= .06)	Self-compassion higher in MBSR group <sup>b</sup>	44% dropout rate in MBSR group due to lack of time and increased responsibility (not lack of interest)	B
Mackenzie et al <sup>13</sup>	RCT Pilot, MBSR vs control 4-week mindfulness training (30-min sessions) followed by 10-min practice 5 d/wk N=30 (registered nurses, licensed practical nurses, nursing assistants)	Relaxation higher in MBSR group <sup>a</sup>	Emotional exhaustion decreased in MBSR group <sup>a</sup> Personal accomplishment increased in MBSR group <sup>b</sup>	Work satisfaction higher in MBSR group but NS (P= .06) Life satisfaction increased in MBSR group <sup>b</sup>	SOC greater in MBSR group but NS (P= .12)		B

*Continued*

**About the Authors**

**Margo A. Halm** is the director of nursing research, professional practice, and Magnet at Salem Health, An OHSU Partner, Salem, Oregon.

**Corresponding author:** Margo Halm, RN, PhD, NEA-BC, Salem Health, Salem, OR 97310 (e-mail: margo.halm@salemhealth.org).

self-compassion, and sense of coherence.<sup>10,12,13,15,16,19</sup> These salutary effects of mindfulness led to less frequent reports of various components of burnout: secondary trauma, emotional exhaustion, depersonalization, and low personal accomplishment.<sup>10,11,13,14,17,19</sup> These mindfulness effects seemed

**Table 1**  
*Continued*

Reference	Design and intervention (N, sample)	Findings					Level of evidence
		Symptoms, physical/psychological	Burnout	Work or life satisfaction	Mindful awareness/compassion/coherence	MBSR feasibility	
LaRose et al <sup>14</sup>	Observational 6-hour stress reduction program, practice for 1 month N= 105 staff on high-stress inpatient units	Stress decreased at 2-4 weeks <sup>b</sup>	Emotional exhaustion improved by 16% <sup>a</sup> ; depersonalization improved by 12.5% at 2-4 weeks <sup>c</sup> Unscheduled absences/turnover 3 months after, NS			Participation rates 13%-27% on targeted units	C
Ando et al <sup>15</sup>	Nonrandomized trial MBSR workshop (2 sessions) followed by daily practice vs control group N=28 geriatric nurses	Physical symptoms decreased after intervention in MBSR group <sup>c</sup> / anxiety, sleep disturbances, depression and interference with social activities decreased after intervention in MBSR group <sup>b</sup>		Spiritual well-being increased in MBSR group, but NS	Total SOC and meaningfulness subscore increased in MBSR group <sup>a</sup>		B
Foureur et al <sup>16</sup>	Observational pilot (pre/post) 1-day MBSR workshop followed by 20-min daily practice for 8 weeks N=40 nurses and midwives	Physical symptoms decreased <sup>b</sup> /stress decreased <sup>b</sup> but changes in anxiety and depression NS			SOC increased <sup>b</sup> (orientation to life and comprehensibility subscores) but change in manageability NS (P=.08)		C
Gauthier et al <sup>17</sup>	Observational pilot (pre/post) Brief 5-min MBSR before shift for 1 month N=38 PICU nurses	Stress reduced at 1 and 2 months <sup>b</sup>	Emotional exhaustion and depersonalization, change NS Personal accomplishment increased at 1 month <sup>a</sup> but change NS at 2 months	Job satisfaction increased at 1 and 2 months but change NS		89% attended at least 1 session; 42% attended 8 sessions	C
Duchemin et al <sup>18</sup>	RCT Experimental group with wait list control group 8-week MBI N=32 SICU personnel	Salivary amylase decreased in MBSR group at 8 weeks <sup>a</sup> /stress NS, but NER to stress decreased in MBSR group <sup>a</sup>	Changes in burnout NS in both groups	Changes in work stress NS in both groups			B

*Continued*

**Table 1**  
Continued

Reference	Design and intervention (N, sample)	Symptoms, physical/psychological	Findings			Level of evidence	
			Burnout	Work or life satisfaction	Mindful awareness/compassion/coherence		MBSR feasibility
Hevezi <sup>19</sup>	Observational pilot (pre/post) Structured meditation 5 days/week for 4 weeks N=15 oncology nurses	Self-report of increased relaxation and well-being	Secondary trauma scores decreased <sup>a</sup> Burnout decreased <sup>b</sup>			C	
Steinberg et al <sup>20</sup>	RCT pilot MBI on unit during shift (1 h/wk for 8 weeks) followed by 20-minute daily practice vs control group N=32 SICU nurses			Work satisfaction increased in MBI group at 8 weeks <sup>b</sup> (mostly owing to increases in vigor subscale) Life satisfaction changes NS		Weekly attendance 90% 100% retention in MBSR group	B

Abbreviations: MBI, mind-body intervention; MBSR, mindfulness-based stress reduction; NER, negative emotional reactivity; NS, nonsignificant; PICU, pediatric intensive care unit; POMS, Profile of Mood States; RCT, randomized controlled trial; SICU, surgical intensive care unit; SOC, sense of coherence.  
<sup>a</sup> P<.05.  
<sup>b</sup> P<.01.  
<sup>c</sup> P<.001.

to not only buffer nurses from burnout, but also promoted greater work and life satisfaction.<sup>13,20</sup>

### Recommendations for Practice

The majority of evidence for MBSR as a self-care modality for nurses represents level B evidence (Table 2). Although sample sizes were small, many studies demonstrated that a mindful practice is associated with holistic mind/body/spirit benefits for nurses that can begin after short-term use. The mechanism of action for mindfulness may be explained through a set of 4 interacting components.<sup>22</sup> The first component, attention regulation, involves sustained attention, with returned attention on the main object of focus upon distraction. Body awareness is the second component, where attention is focused on subtle bodily sensations to enhance attunement with one's body. Emotional regulation, the third component, involves practicing nonjudgmental awareness of one's emotional responses in the moment. The last interlocking component, change in perspective of self, arises from detachment from the view of an unchanging self. Together these mechanisms enhance self-regulation, producing the favorable effects associated with mindfulness.

Ongoing practice of mindfulness and integration of mindfulness into one's self-care routine is essential. The brief mindfulness interventions used in some studies in this synthesis may explain their lack of significant change in outcomes like burnout prevention

or work satisfaction.<sup>17</sup> Thus, the frequency of a nurse's mindfulness practice will most likely influence how effective this integrative approach will be in influencing his or her biopsychosocial outcomes. In other words, positive results are hinged on regular practice.<sup>9</sup> One nurse expressed the catch-22 of incorporating mindfulness into everyday life: "You need it most at times when it is hardest to make it a priority."<sup>17(p121)</sup>

A few studies in this synthesis examined feasibility outcomes for the MBSR programs. Participation

**Table 2**  
American Association of Critical-Care Nurses evidence-leveling system<sup>a</sup>

Level	Description
A	Meta-analysis of multiple controlled studies or metasynthesis of qualitative studies with results that consistently support a specific action, intervention, or treatment
B	Well-designed controlled studies, both randomized and nonrandomized, with results that consistently support a specific action, intervention, or treatment
C	Qualitative studies, descriptive or correlational studies, integrative reviews, systematic reviews, or randomized controlled trials with inconsistent results
D	Peer-reviewed professional organizational standards, with clinical studies to support recommendations
E	Theory-based evidence from expert opinion or multiple case reports
M	Manufacturer's recommendation only

<sup>a</sup> From Armola et al,<sup>21</sup> with permission.

rates ranged from a low of 13%<sup>4</sup> to a high of 90%.<sup>20</sup> Nurses in one study<sup>16</sup> shared that their reason for participating was based on a conscious choice to find ways to reduce stress. Gauthier and colleagues<sup>17</sup> commented that increased participation of nurses may have been due to the facilitation of MBSR in the workplace. This explanation is supported by nurses who expressed how helpful it would be for staff to be able to take 10 minutes for mindfulness when stressed in the moment at work.<sup>17</sup> On the other hand, Shapiro and colleagues<sup>12</sup> reported a 44% drop-out rate. Nurses in this latter study reported lack of time and increased responsibilities as the biggest barriers to incorporating an MBSR program into their lifestyle—a finding that further underscores the challenges nurses experience in prioritizing time for their own self-care. Finding ways to integrate mindfulness into the workplace, even if in brief segments, warrants further research and exploration in practice.

By learning to quiet one's inner voice, mindfulness can increase resiliency that not only benefits nurses personally but also improves their effectiveness and safety in clinical practice. In one study, clinicians with higher mindfulness were more likely to use patient-centered patterns of communication such as building rapport, positive emotional tone, and discussion of psychosocial issues. Other studies have demonstrated that mindfulness of clinicians was associated with higher satisfaction among patients, specifically for overall satisfaction and patient-provider communication, as well as satisfaction with nurses and therapists.<sup>23,24</sup> In addition to promoting patient-centeredness, mindfulness contributes to greater patient safety. Mindfulness enhances attentiveness and, thus, one's ability to identify patterns of thinking that can lead to diagnostic errors, as well as untoward patient events such as medication errors or falls.<sup>24-26</sup> This evidence suggests that patients reap the benefits of nurses' self-care as well. So, go ahead, put on your oxygen mask first ... so many patients are counting on you!

#### FINANCIAL DISCLOSURES

None reported.

#### eLetters

Now that you've read the article, create or contribute to an online discussion on this topic. Visit [www.ajconline.org](http://www.ajconline.org) and click "Submit a response" in either the full-text or PDF view of the article.

#### REFERENCES

- Blum C. Practicing self-care for nurses: a nursing program initiative. *Online J Issues Nurs*. 2014;19(3):3.
- Moss M, Good V, Gozal D, Kleinpell R, Sessler CN. An official Critical Care Societies' Collaborative statement—burnout syndrome in critical care health care professionals: a call for action. *Am J Crit Care*. 2016;25(4):368-376.

- Irving J, Dobkin P, Park J. Cultivating mindfulness in health care professionals: a review of empirical studies of mindfulness-based stress reduction. *Complement Ther Clin Pract*. 2009;15:61-66.
- Ponte PR, Koppel P. Cultivating mindfulness to enhance nursing practice. *Am J Nurs*. 2015;115(6):48-55.
- Abst M, Wilson S, Hogan H, et al. Holistic nurses bring self-care to Brigham & Women's Hospital Shapiro 8. *Beginnings*. 2016:16-17.
- Kabat-Zinn J. *Mindfulness for Beginners: Reclaiming the Present Moment—And Your Life*. Boulder, CO: Sounds True; 2011.
- Brown KW, Ryan RM, Creswell JD. Mindfulness: theoretical foundations and evidence for its salutary effects. *Psychol Inquiry*. 2007;18:211-237.
- Chiesa A, Serretti A. Mindfulness-based stress reduction for stress management in healthy people: a review and meta-analysis. *J Altern Complement Med*. 2009;15(5):593-600.
- Davies W. Mindful meditation: healing burnout in critical care nursing. *Holist Nurs Pract*. 2008;22(1):32-36.
- Cohen-Katz J, Wiley S, Capuano T, Baker DM, Deitrick L, Shapiro S. The effects of mindfulness-based stress reduction on nurse stress and burnout, part II: a quantitative and qualitative study. *Holist Nurs Pract*. 2005;19(1):26-35.
- Galantino ML, Baime M, Maguire M, Szapary PO, Farrar JT. Association of psychological and physiological measures of stress in health-care professionals during an 8-week mindfulness meditation program: mindfulness in practice. *Stress Health*. 2005;21(4):255-261.
- Shapiro SL, Astin JA, Bishop SR, Cordova M. Mindfulness-based stress reduction for health care professionals: results from a randomized trial. *Int J Stress Manage*. 2005;12(2):164-176.
- Mackenzie C, Pulin P, Seidman-Carlson R. A brief mindfulness-based stress reduction intervention for nurses and nurse aides. *Appl Nurs Res*. 2006;19(2):105-109.
- LaRose A, Danhauer S, Feldman J, Evans GW, Kemper KJ. Brief stress-reduction training in an academic health center. *J Altern Complement Med*. 2010;16(9):935-936.
- Ando M, Natsume T, Kukihiro H, Shibata H, Ito S. Efficacy of mindfulness-based meditation therapy on the sense of coherence and mental health of nurses. *Health*. 2011;3(2):118.
- Foureur M, Besley K, Burton G, Yu N, Crisp J. Enhancing the resilience of nurses and midwives: pilot of a mindfulness based program for increased health, sense of coherence and decreased depression, anxiety and stress. *Contemp Nurse*. 2013;45(1):114-125.
- Gauthier T, Meyer RM, Grefe D, Gold JI. An on-the-job mindfulness-based intervention for pediatric ICU nurses: a pilot. *J Pediatr Nurs*. 2015;30(2):402-409.
- Duchemin A, Steinberg B, Marks D, Vanover K, Klatt M. A small randomized pilot study of a workplace mindfulness-based intervention for surgical intensive care unit personnel: effects on salivary  $\alpha$ -amylase levels. *J Occup Environ Med*. 2015;57(4):393-399.
- Hevezi J. Evaluation of a meditation intervention to reduce the effects of stressors associated with compassion fatigue among nurses. *J Holist Nurs*. 2016;34(4):343-350.
- Steinberg B, Klatt M, Duchemin A. Feasibility of a mindfulness-based intervention for surgical intensive care unit personnel. *Am J Crit Care*. 2017;26(1):10-18.
- Armola R, Bourgault A, Halm M, et al. Upgrading AACN's evidence leveling hierarchy. *Am J Crit Care*. 2009;18:405-409.
- Holzel BK, Lazar SW, Gard T, Schuman-Olivier Z, Vago DR, Ott U. How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective. *Perspect Psychol Sci*. 2011;6(6):537-559.
- Beach M, Roter D, Korthuis P, et al. A multicenter study of physician mindfulness and health care quality. *Ann Fam Med*. 2013;11(5):421-428.
- Brady S, O'Connor N, Burgermeister D, Hanson P. The impact of mindfulness meditation in promoting a culture of safety on an acute psychiatric unit. *Perspect Psych Care*. 2012;48(3):129-137.
- Sibinga EM, Wu AW. Clinician mindfulness and patient safety. *JAMA*. 2010;304(22):2532-2533.
- Pezzolesi C, Ghaleb M, Kostrzewski A, Dhillon S. Is mindful reflective practice the way forward to reduce medication errors? *Int J Pharm Pract*. 2013;21(6):413-416.

To purchase electronic or print reprints, contact American Association of Critical-Care Nurses, 101 Columbia, Aliso Viejo, CA 92656. Phone, (800) 899-1712 or (949) 362-2050 (ext 532); fax, (949) 362-2049; e-mail, [reprints@aacn.org](mailto:reprints@aacn.org).

Copyright of American Journal of Critical Care is the property of American Association of Critical-Care Nurses and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.