Clinical Evidence Review



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.ajcconline.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

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. Selfcare 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 conseguences for nurses and those under their care.¹⁻³ 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.^{1,4,5}

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-Zinn⁶ 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.⁷⁻⁹ 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 MED-LINE, supplemented by hand-searching bibliographies. Key words included *mindfulness, mindfulness-based stress*

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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 shift¹⁷ or a 1-hour weekly group session on the unit from 2 PM to 3 PM.²⁰

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.^{15,16} 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.^{12,14-18} In many studies, mindfulness increased attention awareness,

Table 1 Evidence summary on mindfulness for self-care

		Findings					
Reference	Design and intervention (N, sample)	Symptoms, physi- cal/psychological	Burnout	Work or life satisfaction	Mindful awareness/ compassion/ coherence	MBSR feasibility	Level of evidence
Cohen-Katz et al ¹⁰	RCT 8-week stress manage- ment program with mindfulness Experimental group with wait list control group N=27 direct care nurses	Psychological dis- tress reduced in both groups but changes NS	Emotional exhaustion decreased MBSR group ^a Personal accom- plishment increased MBSR group ^b Depersonal- ization less in MBSR group but change NS (P=.06)		Attention awareness increased in MBSR group after interven- tion ^c		В
Galantino et al ¹¹	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 ^a	Emotional exhaustion decreased ^c Deperson- alization reduced but change NS (P=.08)				С
Shapiro et al ¹²	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 ^a		Greater life satisfaction in MBSR group but NS (P=.06)	Self-compas- sion higher in MBSR group ^b	44% drop- out rate in MBSR group due to lack of time and increased responsi- bility (not lack of interest)	В
Mackenzie et al ¹³	RCT Pilot, MBSR vs control 4-week mindfulness training (30-min ses- sions) followed by 10- min practice 5 d/wk N=30 (registered nurses, licensed practical nurs- es, nursing assistants)	Relaxation higher in MBSR group ^a	Emotional exhaustion decreased in MBSR group ^a Personal accom- plishment increased in MBSR group ^b	Work satisfac- tion higher in MBSR group but NS (P=.06) Life satis- faction increased in MBSR group ^b	SOC greater in MBSR group but NS (P=.12)		В

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

Table 1 Continued

		Findings						
Reference	Design and intervention (N, sample)	Symptoms, physi- cal/psychological	Burnout	Work or life satisfaction	Mindful awareness/ compassion/ coherence	MBSR feasibility	Level of evidence	
LaRose et al ¹⁴	Observational 6-hour stress reduction program, practice for 1 month N = 105 staff on high- stress inpatient units	Stress decreased at 2-4 weeks ^b	Emotional exhaustion improved by 16%°; deper- sonalization improved by 12.5% at 2-4 weeks ^c Unscheduled absences/ turnover 3 months after, NS			Participa- tion rates 13%-27% on tar- geted units	С	
Ando et al ¹⁵	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 ^c / anxiety, sleep disturbances, depression and interference with social activities decreased after intervention in MBSR group ^b		Spiritual well-being increased in MBSR group, but NS	Total SOC and mean- ingfulness subscore increased in MBSR group ^a		В	
Foureur et al ¹⁶	Observational pilot (pre/ post) 1-day MBSR workshop followed by 20-min dai- ly practice for 8 weeks N=40 nurses and mid- wives	Physical symptoms decreased ^b /stress decreased ^b but changes in anxi- ety and depres- sion NS			SOC increased ^b (orientation to life and comprehen- sibility sub- scores) but change in manage- ability NS (P=.08)		С	
Gauthier et al ¹⁷	Observational pilot (pre/post) Brief 5-min MBSR before shift for 1 month N=38 PICU nurses	Stress reduced at 1 and 2 months ^b	Emotional exhaustion and deper- sonalization, change NS Personal accom- plishment increased at 1 month ^a but change NS at 2 months	Job satis- faction increased at 1 and 2 months but change NS		89% attended at least 1 session; 42% attended 8 sessions	С	
Duchemin et al ¹⁸	RCT Experimental group with wait list control group 8-week MBI N=32 SICU personnel	Salivary amylase decreased in MBSR group at 8 weeks ^a /stress NS, but NER to stress decreased in MBSR group ^a	Changes in burnout NS in both groups	Changes in work stress NS in both groups			B	

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Table 1

		Findings					
Reference	Design and intervention (N, sample)	Symptoms, physi- cal/psychological	Burnout	Work or life satisfaction	Mindful awareness/ compassion/ coherence	MBSR feasibility	Level o evidenc
Hevezi ¹⁹	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 ^a Burnout decreased ^b				С
Steinberg et al ²⁰	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 satisfac- tion increased in MBI group at 8 weeks ^b (mostly owing to increases in vigor subscale) Life satisfaction changes NS		Weekly atten- dance 90% 100% retention in MBSR group	В

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. P < .05. P < .01.

° P< 001

to not only buffer nurses from burnout, but also promoted greater work and life satisfaction.^{13,20}

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.²² 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.¹⁷ 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.⁹ 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."^{17(p121)}

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 ^a						
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					
В	Well-designed controlled studies, both randomized and nonran- domized, with results that consistently support a specific action, intervention, or treatment					
С	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					
М	Manufacturer's recommendation only					
^a From	Armola et al, ²¹ with permission.					

rates ranged from a low of 13%⁴ to a high of 90%.²⁰ Nurses in one study¹⁶ shared that their reason for participating was based on a conscious choice to find ways to reduce stress. Gauthier and colleagues17 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.¹⁷ On the other hand, Shapiro and colleagues¹² 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.^{23,24} 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.²⁴⁻²⁶ 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!

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eLetters

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