The Need to Accelerate Evidence-based Strategies to Improve Nurses’ Health and Well-being

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THE OHIO STATE UNIVERSITY
In God We Trust, Everyone Else Must Bring Data to the Table!
How can we protect the health of the people who protect our own?

National Academy of Medicine
Action Collaborative on Clinician Well-Being and Resilience

Learn more at nam.edu/ClinicianWellBeing
Self-Care is Necessary for Safe and Great Care of Others
State of Health in Nurses in 2012

Physicians Set Good Health Example
Physicians in better health than nurses and employed adult population

by Katie Bass and Kyley McGeeney

October 3, 2012  see:


Data based on 1,984 physicians and 7,166 nurses, conducted Jan. 2, 2011 to Aug. 31, 2012.
A National Study Links Nurses’ Physical and Mental Health to Medical Errors and Perceived Worksite Wellness

Melnyk et al., 2018, Journal of Occupational and Environmental Medicine

Prevalence of Common Medical Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP/MSD</td>
<td>35</td>
</tr>
<tr>
<td>High Cholesterol</td>
<td>30</td>
</tr>
<tr>
<td>Hypertension</td>
<td>25</td>
</tr>
<tr>
<td>Arthritis</td>
<td>20</td>
</tr>
<tr>
<td>Depression</td>
<td>15</td>
</tr>
<tr>
<td>Anxiety</td>
<td>10</td>
</tr>
<tr>
<td>Cancer</td>
<td>7</td>
</tr>
<tr>
<td>Pre-diabetes</td>
<td>5</td>
</tr>
<tr>
<td>Diabetes type II</td>
<td>5</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>3</td>
</tr>
<tr>
<td>Diabetes type 1</td>
<td>2</td>
</tr>
</tbody>
</table>

*BP/MSD: Back Pain/Musculoskeletal Disorder*
Health Status by Perceived Wellness Support & Stress at Workplace

Health Status, by perceived support of wellness at place of employment

Health Status, by perceived stressfulness at the place of employment
Percent of Nurses with Poor and Good Health with Medical Errors

Proportion of nurses having medical errors in the last 5 years
(total n=745 nurses reported having medical errors)

% having medical errors

Physical Health  Mental Health  BMI  Total Cholesterol  PHQ-2  GAD-2  PSS-4  ProQOL

Low
High

Errors and Shift Work

Medical errors in the last 5 years

- none
- 1-2
- 3-5
- 5+

Percent, %

<8 hrs  8 hrs  8-10 hrs  11-12 hrs  12+ hrs

Hours of work day/shift
Interventions to Improve Mental Health, Well-being, Physical Health and Lifestyle Behaviors in Physicians and Nurses: A Systematic Review

Bernadette Mazurek Melnyk, PhD, RN, Stephanie Kelly, PhD, RN
Janna Stephens, PhD, RN, Kerry Dhakal, MAA, MLS
Colleen McGovern, PhD, RN, Sharon Tucker, PhD, RN
Jacqueline Hoying, PhD, RN, Kenya McRae, PhD
Samantha Ault, MS, RN, Beth Spurlock, BSN, RN, and Steven B. Bird, MD
Results

43 Studies Included in the Systematic Review

- RCTs 67% (n=29)
- Quasi-experiments 33% (n=14)
- Control group
  - 14 attention-control, 15 wait-list control, 13 no-attention control, 1 cross-over design
- Sample sizes ranged from 22 to 557
- Length of the interventions = 1.5 to 92 hours
Results

• Focus of studies
  • Mindfulness-based/CBT 40% (n=17)
  • Stress reduction/CBT 26% (n=11)
  • Lifestyle behaviors 28% (n=12)
  • Well-being 7% (n=3)

• Study participants
  • Physicians only 16% (n=7)
  • Nurses only 40% (n=17)
  • Physicians, nurses, and other allied healthcare professionals 44% (n=19)
Results

Trends in outcomes

- Five studies used CBT principles of which 80% had significant findings on the targeted outcomes (e.g., decreases in stress, anxiety, depression)
- Mindfulness worked for stress/anxiety
- Five studies used technology to implement the intervention of which only one study (20%) had significant findings and this study incorporated mindfulness-based cognitive therapy
Trends in Outcomes

• Studies with predominantly significant between group findings had more contact hours with the participants in general although there were a few brief interventions that incorporated deep breathing or gratitude practices with significant outcomes on stress/anxiety.

• Studies with predominantly significant outcomes were less likely to have a rating of high risk of bias on the Cochrane Bias Tool versus studies with no significant extracted outcomes.
MINDBODYSTRONG (An 8-session cognitive-behavioral skills building program) for New Nurse Residents at Ohio State’s Wexner Medical Center: A Randomized Controlled Trial

In press: *Journal of Nursing Administration*
Sampson, Melnyk & Hoying
The MINDBODYSTRONG Program (also known as COPE in the literature)

Consists of cognitive restructuring, problem solving and behavioral change to help cope with and PREVENT depression/anxiety

The thinking/feeling/behaving triangle
Depressive Symptoms

<table>
<thead>
<tr>
<th>Group</th>
<th>Baseline</th>
<th>Immediate Post Intervention</th>
<th>3-month Post Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attention Control Group</td>
<td>4.98</td>
<td>5.45</td>
<td>6.07</td>
</tr>
<tr>
<td>Intervention Group</td>
<td>4.15</td>
<td>1.64</td>
<td>2.83</td>
</tr>
</tbody>
</table>

Mild Depression Level
Considering all Causes of Morbidity and Mortality, Behaviors are the #1 Killer of Americans
Every day, we make behavioral choices that influence our health and wellness outcomes.
Evidence-based Interventions to Reduce Burnout, Improve Healthy Lifestyle Behaviors, and Optimize Well-being in Clinicians Must be Multi-Component
A Sustainable Culture of Wellness is a Must!

*Remember,*

*Culture Eats Strategy!*

Individual interventions for clinicians, such as mindfulness and cognitive-behavioral skills building, work best when combined with system and culture level interventions.
The Social-Ecological Framework and Life-Course Perspective Guide
Evidence-based Interventions to Achieve Optimal Well-being in Faculty, Clinicians, Staff and Students at Ohio State

Individual Interventions
- PHA
- Million Hearts’ Biometric screenings
- Health coaching
- Diabetes prevention program
- Integrative Therapies
- Wellness on-boarding
- Health Athlete
- Buckeye Babies
- Care Coordination & Disease Management

Workplace Interventions
- Buckeye wellness programming
- Leader/supervisor Program
- Buckeye Wellness innovators
- YPAH
- STAR Program
- Ergonomics assessments – standing desks & walking treadmills
- Wellness Wednesdays
- Policies (e.g., tobacco free)
- PR/Communications
- YouTube Evidence-based Health
- Massage

Community & State-wide Interventions
- Community-based Interventions
  - Education
  - Healthy lifestyle programs
- State-wide health & wellness policies
- Television/ media
  - Million Hearts’ screenings & education

Outcomes
Individual Outcomes
- Health & Wellness Outcomes
  - BMI, PHA completion, BP, Lipids, HbaA1c, stress, anxiety, depression, injuries, missed work days, healthy lifestyle beliefs & behaviors resilience, chronic disease
- Quality of life
- Engagement in programming

Family Outcomes
- PHA Completion, BMI, BP, Lipids, % engaged in wellness programs

Workplace Outcomes
- Healthcare utilization
- Healthcare costs
- Perceived Culture & Environment, # of programs offered with % engagement

Broad Outcomes
- # of community and state-wide programs with engagement
- # of policies
- State health outcomes

Assessment, Monitoring, Evaluation and Dissemination

Adapted from: Model to Achieve Healthy People 2020 overarching goals
Source: Secretary’s Advisory Committee on Health Promotion and Disease Prevention Objectives for 2020 (2008, p. 7)
Tracking of Outcomes, including ROI & VOI Determines Impact

• Culture and Environment of Health and Wellness
  o CDC Worksite Scorecard
  o 11 Item Wellness Culture and Environment Scale (Melnyk & Amaya, 2012)

• Population Lifestyle Behaviors and Health Outcomes
  o Lifestyle behaviors (e.g., intake of fruits and vegetables; physical activity)
  o Prevalence data to show burden of illness
  o Incidence data to show rate of changes in burden of illness
  o Mental health data (PHQ and GAD-7)
  o Biometric Data (e.g., high blood pressure, high cholesterol, BMI)
  o Engagement in programming

• Fiscal Health and Value of Investment
  o Per member Per Year (PMPY) costs of health insurance plans for faculty, staff and students
  o YP4H costs
  o Annual costs of absenteeism, presenteeism, and disability
  o Excess costs associated with obesity, hypertension, prehypertension, diabetes, pre-diabetes, depression and smoking
Recommendations

• Funding for rigorous randomized controlled trials with individual and system-level interventions that can be reproduced and easily scaled
• Trials that measure similar outcomes, including cost outcomes, and assess fidelity and dose response
• When we know what works in research, we need to scale interventions quickly to real world clinical settings to improve outcomes
• We need to build wellness cultures and make healthy lifestyle behaviors easy, fun and the norm in healthcare systems across the U.S.
NAM’s Action Collaborative on Clinician Well-being

Clinician Well-Being Case Studies

ACTIONABLE SOLUTIONS TO TACKLE CLINICIAN BURNOUT.

nam.edu/clinicianwellbeing/casestudies

Learn more at nam.edu/ClinicianWellBeing/CaseStudies
My Main Reasons for Engaging in Healthy Lifestyle Behaviors
Contact Information

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