

INTRODUCTION

Interventions to help health professionals address unmitigated workplace stress are necessary. Cascading effects of unaddressed stress include:

- **Compassion Fatigue & Burnout** (Sabo, 2011)
- **Illness & Injury** (Ayas et al., 2003)
- **Turnover & Staffing Issues** (Hayes, 2012)
- **Quality & Safety Issues** (Aiken et al., 2012)

PICOT

Among pilot participants (P), how does participation in Project HEAL (I), affect self-reported measures of perceived stress and adaptive responses to it (O), as measured pre- and post- intervention and again at four months following the intervention (T) ?

Objectives

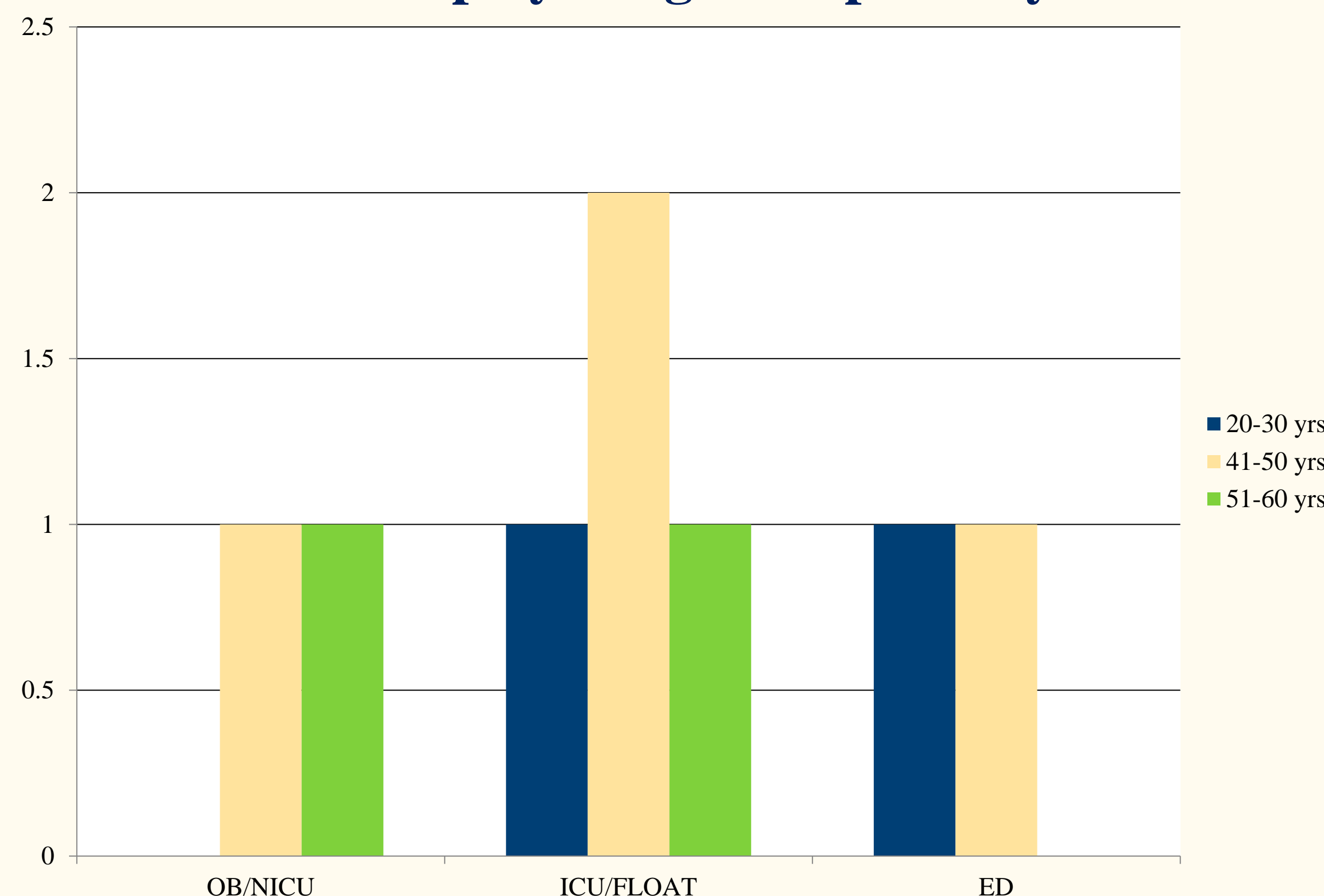
As a result of participating in Project HEAL (Health, Energy, and Life at Work, a mindfulness-based stress reduction [MBSR] intervention), participants will demonstrate measurable differences from pre- to post intervention:

1. 10% increase in knowledge, skill, attitude, & behaviour
2. 10% improvement in perceived ability to effectively manage stress
3. 10% improvement in knowledge of and reported use of meditation practice
4. Stakeholders at FHS provided with Phase II guidance for workplace health promotion programming

SETTING & PARTICIPANTS

Purposive sampling was conducted within a 485 bed hospital system, in a medium sized town, targeting RNs where the highest occurrences of lost-time illnesses, injuries, disability days, and turnover were reported.

Employee Age & Speciality



MATERIALS AND METHODS

• **Project HEAL:** 8 week (MBSR) intervention using *mindfulness*: “paying attention in a particular way; on purpose, in the present moment, and non-judgementally”(Kabat-Zinn,1994, p 4).

• **Design:** Pre- post- and 4-month follow-up post-intervention surveys administered

• **Tools:** Perceived Stress Scale-14 (PSS-14), Additional Likert and open-ended survey items were added to help measure project objectives and efficacy

• **Measures:** Calculations for sample size based on G-Power 3.1. Using a RM-ANOVA within factors; groups = 3, number of measurements =3, a power of .80, an effect size of .50 and p =0.05, the minimum total sample size was calculated to be nine subjects. The Chi-Square Test of Independence (χ^2) was used to analyze nominal level data. The Friedman’s test used to analyze ordinal level data. Kendall’s W (coefficient of concordance) was used as a measure of effect size, with values of 0 to 1 consistent with no effect to a very strong effect. The level of significance was set at $p = .05$.



RESULTS

Survey Item Number	p Value	Median			Effect Size
		Pre	Post	Post-1	
2 - felt unable to control important things...	.40	2	3	3	.08
8 - could not cope with all you had to do....	.48	3	2	2	.06
11 – angry because of things outside of your control....	.34	3	3	2	.09
12 – thinking about things you have to accomplish....	.52	5	5	4	.13
14 – difficulties were piling up so high you could not overcome..	.27	3	2	2	.11
16 – I experience my life at home as (how stressful)....	.43	2	3	2	.07
17 – I experience my life in general as (how stressful)...	.50	2	3	2	.06
18 – I know how to meditate....	.09	1	4	4	.20
19 – I practice meditation regularly....	.10	1	3	3	.19
20 – I have used mindfulness to manage my stress in the past...	.20	1	4	4	.13
21 – 30 minutes of physical exercise regularly...	.43	1	3	2	.07
22 – I eat mindfully...	.54	2	4	3	.05

- Item Number correlates with PSS-14 and open-ended survey items
- Friedman’s test for statistical analysis with Kendall’s W (coefficient of concordance) used as a measure of effect size

RESULTS

• **Statistical significance** 10 out of 12 completed the intervention; 5/10 and 6/10 completed post-surveys, yielding a 50% return rate

• **Clinical significance** is suggested by consistent responses of those completing pre-, post-, and 4-month post surveys as well as effect size of .05 to .20.

Objective1: 100% report “I know how to meditate” after intervention while only 20% knew how to mediate prior to the course ($W = .20$)

Objective 2: 4 months after intervention 83.33% reported using MBSR to relieve stress as compared with 0% prior to intervention. 80% reported being able to apply MBSR to their job setting.

Objective 3: 100% report practicing MBSR minimum 2 days per week after intervention. ($W = .20$)

Objective 4: 6 quiet spaces established, exceeding goal by 100%. Stakeholders provided with project guidance via electronic poster presentation. HEAL program integrated into system’s wellness program. Second intervention offered with 24 participants.

CONCLUSIONS

- Integration of HEAL intervention within existing facility wellness programming will increase access & sustainability.
- A second intervention was conducted with noted modifications
- Integration of HEAL goals and personnel with those of Service Excellence and Human Resource will ensure stakeholder alignment.
- Include more diverse participant population in future studies would increase generalizability.
- Consider use of Maslach Burnout Inventory in place of PSS
- Streamlining data collection process will enable improved data analysis

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