

## BACKGROUND

### HEALTHCARE

- Oncology nursing is often a source of substantial stress and fatigue, consequences of which include burnout, lost productivity, and attrition.
- Care for the caregiver practices such as safe and effective use of essential oils and aromatherapy in nurses' personal and professional lives is becoming more popular.
- Both The Joint Commission (TJC) and the Institute for Healthcare Improvement (IHI) Triple Aim Initiative call for organizations to improve patient care and experience while controlling cost. Staff satisfaction and longevity in the work environment supports this.
- Complementary modalities are available and could help meet this challenge, however, evidence for these therapies, such as aromatherapy, is highly variable.
- To this end, the Infusion Center Nurses at the WVU MBRCC completed an eight week study involving use of prepackaged aromatherapy patches.

### AROMATHERAPY



- Aromatherapy** refers to the inhalation and topical application of true, authentic essential oils from aromatic plants to restore or enhance health, beauty, and well-being.
- Aromatherapy patch** (pictured) manufactured by BioEsse and pre filled with 1.5 drops of pure essential oil in a blend created by Jodi Baglien. Patch is designed to slowly release scent over about 8 hours.
- Certified Aromatherapist** refers to one who has completed at least 235 hours of approved instruction. Any healthcare organization wanting to incorporate essential oils into practice should have a Certified Aromatherapist as part of the team.

## METHODS



### Synergistic blend of:

- Lemon
- Orange
- Mandarin
- Pink Grapefruit
- Lemongrass
- Lime
- Peppermint

### DESIGN DETAILS

- Pre, During, and Post Surveys with questions about feelings and use of Complementary Alternative Therapies
- Nurses wore aromatherapy patches on badge cards, above the waist per WVU dress code policy
- Eight patches were provided for each participant to wear on eight separate occasions
- Pre surveys were completed after education session and informed consent signed
- During surveys were completed at the end of each day when patch was worn
- Post surveys were completed after eighth patch was worn
- Participants received a \$5 Starbucks gift card at conclusion of study
- Paired t-test was used to compare the stress and fatigue values between pre and post surveys
- IBM Corp. Released 2019. IBM SPSS Statistics for Windows, Version 26.0. Armonk, NY: IBM Corp.

## OUTLOOK & ACKNOWLEDGEMENTS

### PROJECTIONS

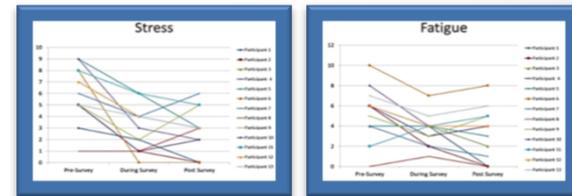
- Interest in broadening scope & numbers is apparent
- Plans to include more Investigators, a validated tool for data collection, and delete During survey component
- Present findings as Poster, Presentation, and Publication

### KUDOS

- WVUCI Infusion Center Nurses
- WVUCI Administration & Preceptors
- WVU Ruby 8 East Administration & Management
- Sigma Theta Tau, Alpha Rho Chapter, WVU
- Jodi Baglien, Aromatherapy Consulting
- WVU Research & Evidence-based Practice Council, Lya Cartwright-Stroupe
- Dr Kensheng Wang, WVU School of Nursing

## CONCLUSIONS

- 40% to 50% reduction in perceived levels of stress and fatigue
- 42% report no prior use of aromatherapy
- 58% would wear and recommend patch
- The stress and fatigue values significantly decreased ( $p = 0.001$  and  $0.012$  respectively)**
- Participant comments very positive "I enjoyed the light scent of the patch and would most likely enjoy to continue using aromatherapy in the workplace."



Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Stress before Aromatherapy	6.00	13	2.345	.650
Stress after Aromatherapy	2.69	13	1.932	.536
Pair 2 Fatigue before Aromatherapy	5.23	13	2.555	.709
Fatigue after Aromatherapy	3.23	13	2.522	.699

Paired Samples Correlations			
	N	Correlation	Sig.
Pair 1 Stress before Aromatherapy & Stress after Aromatherapy	13	.110	.720
Pair 2 Fatigue before Aromatherapy & Fatigue after Aromatherapy	13	.534	.060

Paired Samples Test									
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper	t	Sig. (2-tailed)	
Pair 1	Stress before Aromatherapy - Stress after Aromatherapy	3.308	2.269	.798	1.574	5.041	4.157	12	.001
Pair 2	Fatigue before Aromatherapy - Fatigue after Aromatherapy	2.000	2.449	.679	.520	3.480	2.944	12	.012

## LIMITATIONS

- Limited sample population (n = approx. 40 Infusion Center Nurses)
- Small sample frame (n = 19 volunteered and signed consent, n = 13 completed pre and post surveys)
- Refresh Blend by Jodi Baglien is a light blend & dissipates quickly, (i.e. "I enjoyed the smell of the aromatherapy patch. I wish the scent lasted the duration of my work day.")
- Survey instrument not validated