2021 Fourteenth National Doctors of Nursing Practice Conference: The DNP and Quality Improvement

IMPLEMENTING A VIRTUAL WELLNESS GROUP INTERVENTION FOR RURAL FEMALE VETERANS: LIVE GROUP *(LOVE YOURSELF, INVEST IN YOURSELF, VITALIZE YOURSELF, EMPOWER YOURSELF)*

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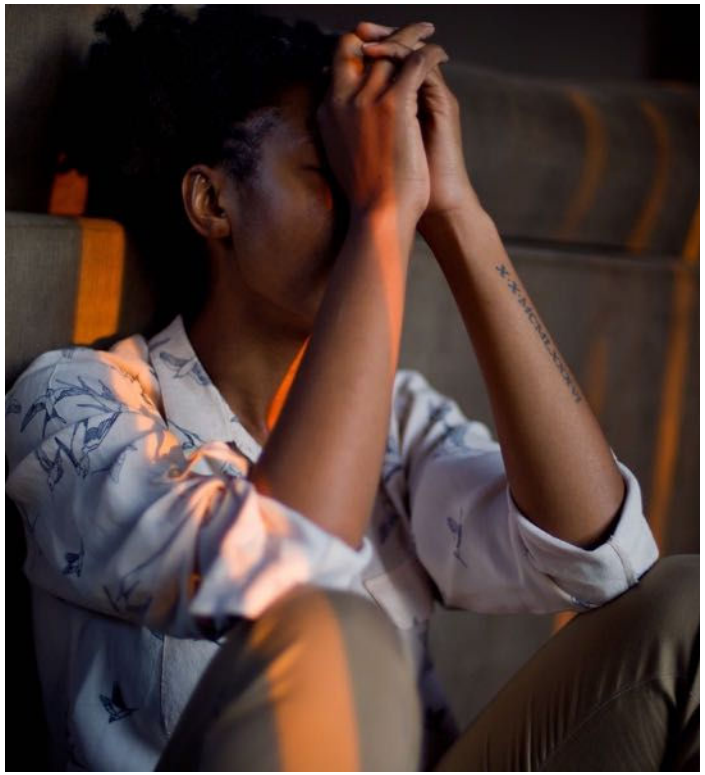
No disclosures to report

LIVE INTERVENTION: THE PROBLEM



Female Veterans have a complex mental health burden

- Suicide rates increased by 62.4% from 2001-2014 (U.S. Department of Veteran Affairs, 2017)

Rural female Veterans have increased barriers related to social determinants of health (rurality, poverty, access to care, drug and alcohol addiction)

- Rural female Veterans commit suicide at two times that of their non-Veteran rural female counterparts
- Suicide attempts more lethal in rural female Veterans due to increase use of firearms; twice as likely to be used in rural versus non-rural areas

LIVE INTERVENTION: AIMS/PICO/RESEARCH SUPPORT

Aims:

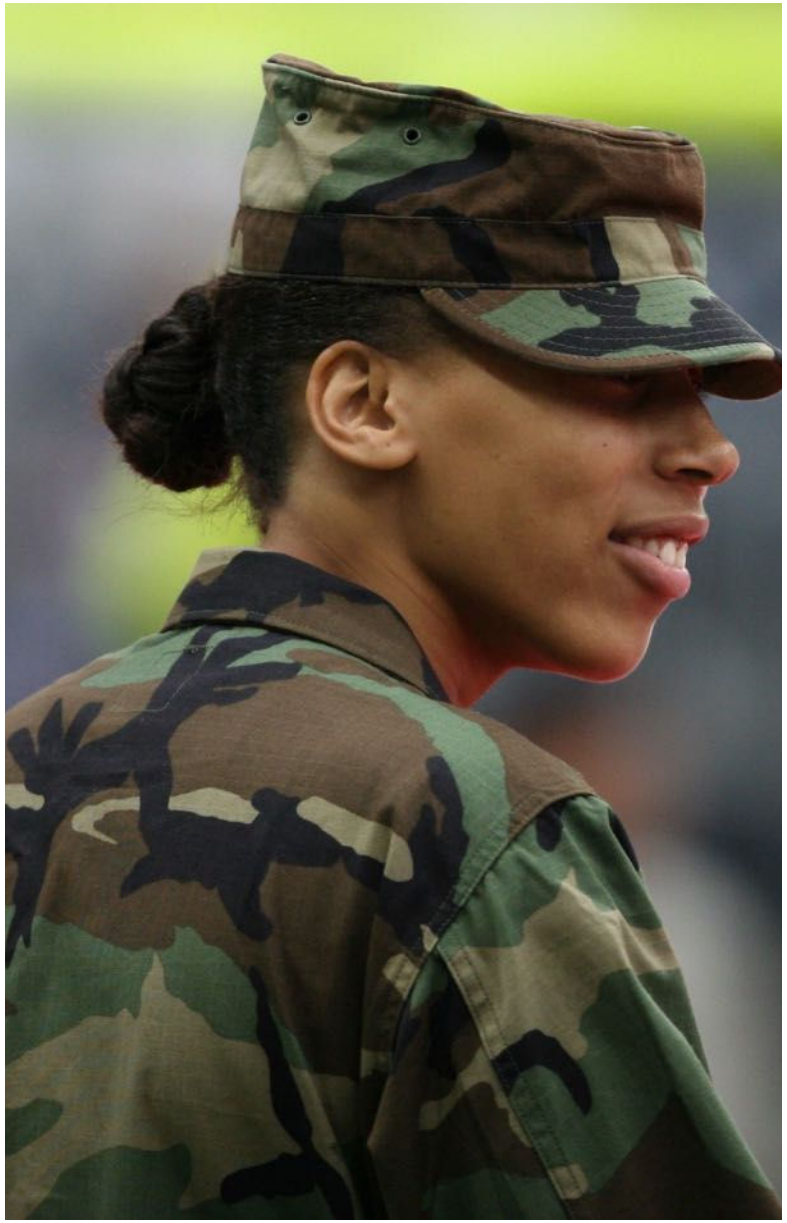
- Enhance psychosocial health and well-being for rural female Veterans participating in a virtual 4-week wellness protocol "Love Yourself, Invest in Yourself, Vitalize Yourself, and Empower Yourself" (LIVE) during the COVID-19 Global Pandemic
- LIVE included group social interaction and mindfulness practice using Veterans Affairs' (VA) Mindfulness Coach digital application.

PICO:

- Does participation in a virtual wellness group intervention improve physical, social, and emotional health measures in rural female Veterans?

Research Support

- Research shows mindfulness interventions represent accessible, safe alternatives to pharmacological interventions for mental health and wellbeing.
- Researchers have studied mindfulness interventions in various settings with various mood and stress-related disorders, finding an increase in self-awareness, reduction in stress and pain, and an increase in resiliency (Zeidan et al., 2015).



METHODOLOGY: DATA COLLECTION & LIVE INTERVENTION

Data Collection

- LIVE received IRB approval from MSU's IRB and the midwestern VHA facility as a QI project using a quantitative, correlational design study that minimized risk, focused on participant privacy, confidentiality, security and consent
- Using Convenience sampling was used to identify and enroll 18 rural female Veteran participants from the midwestern VHA facility's Whole Health participation.
- Rurality defined by USDA and DHHS Rural-Urban Commuting Areas (RUCA) codes
- Verbal consent was obtained during the pre-intervention session along with education on using the VA Mindfulness Coach digital application (MCA)
- Pre- and post-intervention sessions included verbal data collection of the following measurements: Mindfulness Attention Awareness Scale (MAAS), Perceived Stress Scale (PSS), Pittsburgh Sleep Quality Index (PSQI), Patient-Reported Outcomes Information System Global-10 (PROMIS Global-10)
- Post Intervention session included education on Whole Health Coaching and scheduling assistance along with informal feedback

LIVE Intervention

- Virtual 4-week 1 hour women's wellness self-care protocol that included social connection and brief mindfulness practice using the VA Video Connect digital application
- LIVE was conducted during the COVID-19 Pandemic with two separate groups (October 2020 group 1 and January 2021 Group 2)

DATA ANALYSIS

1. MSU RStats aided with statistical analysis
2. 18 participants were screened; 5 of 18 participants excluded due to noncompletion of final measurements
3. 13 participants were used in final data analysis
4. Difference scores were calculated and assessed with no outliers found using z-scores with cutoff of |3|
5. Shapiro Wilk's test of normality indicated normal distribution (p>.001). Assumption of normality was met
6. Independent t-test was analyzed for both groups. No statistically significant difference was shown across all measurements
7. 13 participants data combined. Paired sample t-tests- no statistically significant difference (small sample size?)

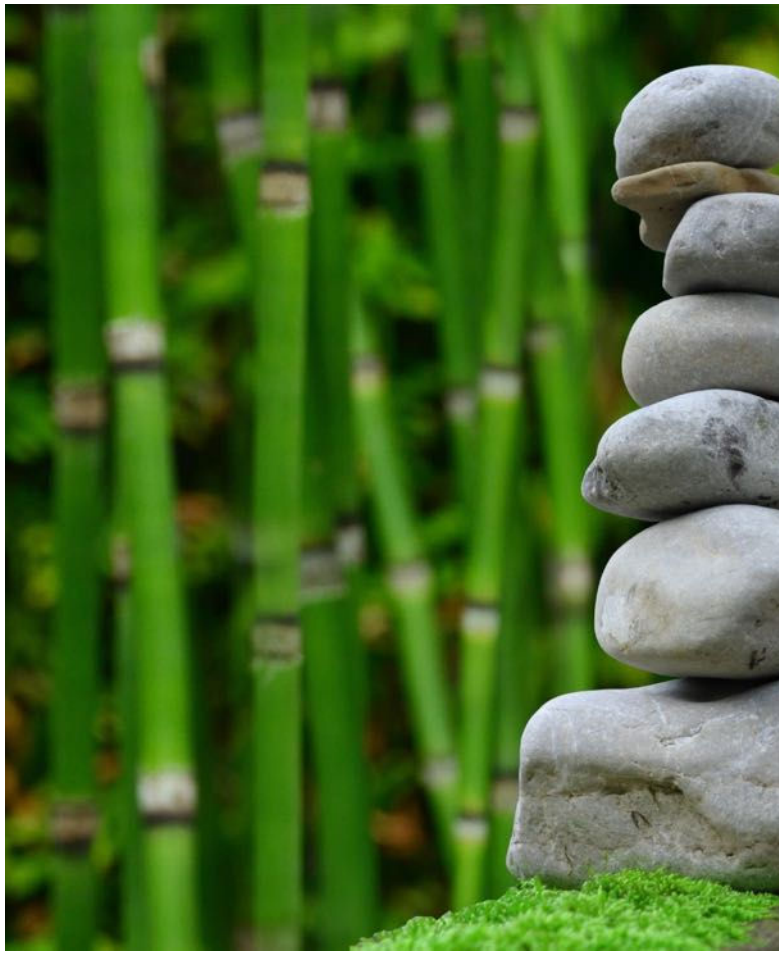
PAIRED SAMPLES *t*-TEST RESULTS FOR MEASURE DIFFERENCE SCORES BETWEEN PRE AND POST INTERVENTION

Measure	Df	T	p	Cohen's d
MAAS	12	-1.936	0.077	-0.537
PSS	12	1.649	0.125	0.457
PHT	12	-0.524	0.610	-0.145
MHT	12	-0.940	0.366	-0.261
PSQI	12	1.505	0.158	0.417

Pre and post difference score means and SE for each measure

	Pre		Post	
	Mean	SE	Mean	SE
MAAS	3.410	0.185	3.687	0.195
PSS	21.308	1.909	18.231	2.137
PHT	0.612	0.039	0.623	0.036
MHT	0.546	0.041	0.573	0.031
PSQI	11.615	1.217	10.385	1.238

FINDINGS



Greater clinical effect toward:

- Increased Mindfulness (MAAS Cohen's *d* value of -0.537)
- Reduced stress (PSS Cohen's *d* value of 0.457)
- Increased sleep quality (PSQI Cohen's *d* value of 0.417)

Minimal clinical effect:

- PROMIS Global 10 Physical Health (Cohen's *d* value of -0.145) & Mental Health (Cohen's *d* value of – 0.261) raw scores

Reduced stress and the negative impact of social isolation in rural female Veterans - pronounced during COVID-19 pandemic

Mindfulness influences skill building, and symptom management

Mindfulness may not directly impact quality-of-life factors predisposed by social determinants of health

CONCLUSIONS & LESSONS LEARNED

Limited Sample Size 18 participants and data collection limitations 18 pre data/13 post data – 5 lost to follow-up.

Intervention Session Variations - day and time and month variation and mindfulness knowledge and practice variations

Technical difficulties with VA Video Connect platform - Utilizing a pre and post session for data gathering, technology troubleshooting, and education provided useful in implementing the sessions.

COVID-19 Pandemic related psychosocial challenges

100% of 13 Veterans interviewed discussed LIVE intervention as useful and enjoyed socialization aspect of the group. 12/13 identified wanting additional sessions indicated 4 sessions not enough.

Utilizing four measurements for a 4-week session provided insight into which measurement had the highest clinical effect.

- MAAS was the closest to statistical significance at 0.077. This may provide valuable with future dissemination, providing insight on the LIVE group intervention and impact on mindfulness.
- Future LIVE sessions could be implemented utilizing MAAS scale only for ease of dissemination.

Participants were engaged and interactive in sessions

How would this data have changed with the additional post data?

IMPLICATIONS FOR FUTURE RESEARCH

Recommendations include expanding the participant sample size to gain additional insight into the efficacy of mindfulness interventions across broader populations

Continue to reach rural communities through virtual wellness programming through

REFERENCES & ACKNOWLEDGEMENTS

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