

Background & Significance

- Coronavirus is an infectious disease known as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), first recognized in Wuhan, China in December 2019 and has spread globally at a fast rate resulting in a pandemic (WHO, 2020). It is considered a public health emergency since it has affected multiple countries with millions of deaths reported to this date (Rajkumar, 2020). The pandemic has greatly impacted:

The Economy

- Decrease in the production of essential goods, cash flow, and revenue growth (Haleem, et al., 2020). Registered nurses (RNs) being laid off, furloughed, or being asked to take unpaid time (Miller, 2020).

The Healthcare System

- Drastic measures into place to conserve personal protective equipment (PPE) and maximize use due to increase demand of patients, and lack of supplies (Haleem, et al., 2020).

Stress

- The role of every nurse has been impacted, by being asked to work in areas that are not their specialty (John Hopkins University, 2020).
- Nurses' physical and psychological well-being are being challenged daily, by taking care of sicker patients, an increase in patient to nurse ratios, and their organization not having enough medical supplies for their protection (Ehrlich, McKenney, Elkbulli, 2020).

Aims & Objectives

Aims

- RNs will learn a new stress management technique to decrease perceived stress during the COVID-19 pandemic through a mobile app intervention.

Objectives

- Recruitment of RNs into a guided mindfulness program for four weeks.
- Evaluate perceived stress via a survey tool and assess pre- and post-intervention results.
- Analyze results and develop recommendations for RNs to decrease stress in stressful environments.

Methodology

- Design** Quasi-experimental one group pre- and post-test
- Sample** 6 RNs working during COVID-19 pandemic
- Setting** Facebook – group called Registered Nurse
- Measures** Reduction in perceived stress among RNs
- Intervention** Baseline PSS and demographics survey. Download of Let's Meditate App to phone and listen to "A COVID-19 Meditation" 14-minute audio weekly for 4 weeks. Final PSS post-intervention.

Clinical Question

Will the implementation of a brief guided mindfulness over a period of 4 weeks reduce perceived stress among registered nurses during the COVID-19 pandemic?

Results

Table 1

Descriptive Statistics

	N	Mean Std.	Deviation	Minimum	Maximum
Pre-Intervention Test	6	3.4500	.86891	2.50	4.80
Post-Intervention Test	6	3.2333	.70048	2.20	4.20

Wilcoxon signed-ranks test was reported using the Z statistic. Test results show that the intervention did not elicit a statistically significant or change in perceived stress post-intervention ($Z = -1.625$, $p = 0.104$), although the median score showed a slight decrease. Results demonstrated a slight decrease in perceived stress when comparing pre- and post-intervention tests, though not statistically significant.

Additional comparisons

In this section, pre- and post- intervention results were correlated with gender, age, schooling, and family obligations. To carry out these tests, the Mann-Whitney test was used to compare the two independent groups.

When comparing the differences among genders, males had a higher mean pre- and post-intervention (5.50) compared to females pre- and post-intervention (2.50) results. Males showed a higher perceived stress compared to females, but both genders had a slight decrease in stress post-intervention. Further analysis determined there was no significant difference between male and females ($U = 0.000$, $P = 0.133$).

The following data analysis was performed among participants who were in school at the time of the study, and those who were not in school. From the total participants, 3 attended school and 3 did not. Those who were in school had a higher mean rank (5.00) compared to those who were not in school (2.00). Individuals who did not attend school had a greater decrease in perceived stress compared to those who did attend school. There was no statistically significant difference among individuals who did and did not attend school ($U = 0.000$, $P = 0.046$).

Furthermore, participants who did and did not have family responsibilities were reviewed for comparison. Among the 3 participants who had family responsibilities, 2 of them had children and were attending school, and 3 participants did not have any family responsibilities. Among the participants who did have family responsibilities the results showed a higher mean rank pre-and post-intervention (5.00) compared to those who did not have family responsibilities (2.00). There was no statistical significance among individuals who did and did not have family responsibilities ($U = 0.000$, $P = 0.100$).

Discussion

- Evidence supports the practice of mindfulness via an app as a stress reducing technique. It aids in controlling thoughts and reducing stress levels.
- Evidence indicates individuals may experience extensive benefits even after one session from a 5-minute mindfulness such as reducing stress, anxiety, depression, and others.
- Mindfulness creates a mental quiet space, and its focus is on the present moment. Nurses who practice mindfulness have reported reduced stress, improved care for their patients, a more patient-centered focus, and listening.
- Results demonstrate the effectiveness of mindfulness via the use of an app to decrease stress after 4-weeks.

Conclusion

The nursing field is well known as a strenuous occupation, and while it may affect the health of a nurse, it can also influence patient outcomes and safety. The use of a brief mindfulness can decrease stress and in turn, provide better care, and increase patient outcomes

References

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