

Dumke College of Health Professions

ANNIE TAYLOR DEE SCHOOL OF NICOTOR

ABSTRACT

More than ever, emergency room (ER) nurses are experiencing adverse physical and emotional health outcomes from stress (15). They need effective and time-conscious resources to recover from and manage their stress. Spending time in nature has been shown to decrease stress and other negative health problems through analysis of indicators including cortisol, amylase, blood pressure, heart rate, and psychological components (4,5,8,9,11,13,16). These indicators were used to statistically measure changes and find the optimal time for the most significant benefit (5). Multiple areas of nature exposure were studied and shown to be beneficial, including gardening (9), forest bathing (Shinrin-Yoku) (4), and sitting in a garden or natural area (13,16). Additionally, indoor nature exposure showed stress reduction from videos, pictures, wood elements, plants, nature sounds, and smells (6,8). Other health benefits included improved intestinal microbiome (10), attention, and creative reasoning (1). This program was created to educate and inspire ER nurses to integrate nature-based stress reduction methods into their routines to improve work and daily life stress. Nature is inspiring, adaptive, and ubiquitous, making it an ideal stress reduction tool.

PICO QUESTION

In nurses, how do nature-based stress reduction interventions, compared to no intervention, affect physical and mental health over 6 months?

LITERATURE REVIEW

The literature review brought to light statistical and subjective evidence showing effective stress reduction with spending meaningful time in a natural setting. The evidence reviewed in this process solidified my decision to research and write about the benefit of nature as a stress reduction method for ER nurses.

The themes that emerged in the data with nature exposure were

- Decrease in salivary cortisol and amylase levels (5, 13, 16)
- Decrease in blood pressure and heart rate (4, 9, 11, 13)
- Decrease in perceived stress (8, 9, 11, 16)
- Both outdoor and indoor nature exposure showed benefits (2, 3, 4, 5, 6, 8, 9, 11, 13, 16)

Time with Nature as a Stress-Reduction Technique

Rachel Williams, BSN, RN, MSN Student

PROJECT METHODOLOGY

The increased amount of stress in the ER severely affects ER nurses' mental and physical health at home and work, increasing anxiety, depression, and risk of suicide ⁽¹⁵⁾. This master's project was created to educate ER nurses on the benefits that nature can provide in stress reduction and other areas of personal health. Utilizing a constructivist approach ⁽⁷⁾, this program aims to build new knowledge and connections based on positive prior nature experiences. The in-service utilizes several stress reduction tools and a personal experience in nature created and customized for ER nurses in the Ogden Valley.



rigule 1

Figure 2

Plan and Development

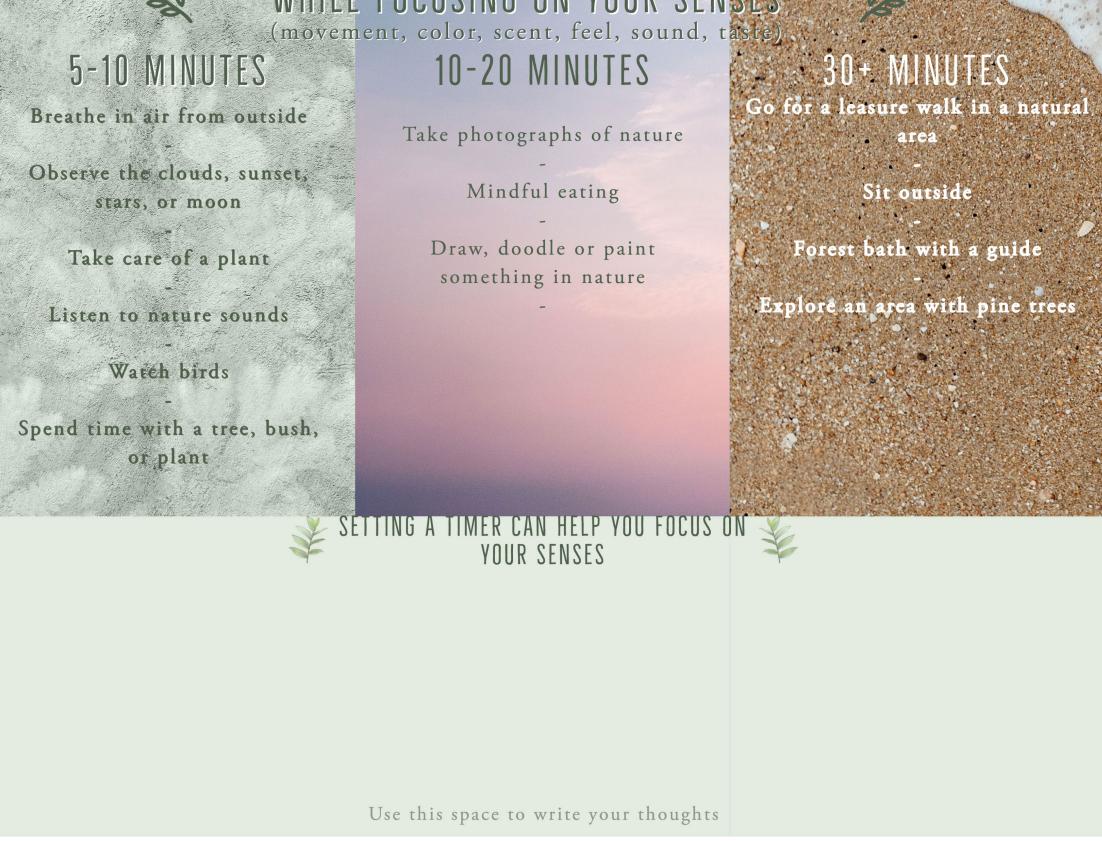
This nature-based stress reduction program was created, inspired by my children and the abundance of research on the subject, to bring an experience with nature to ER nurses.

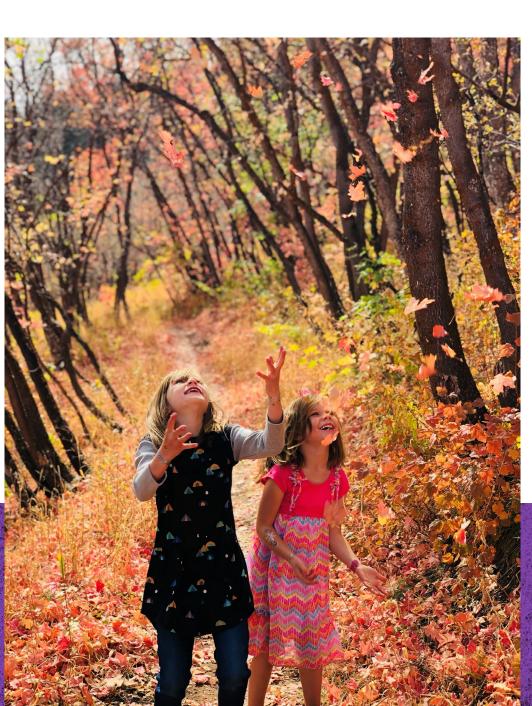
Program

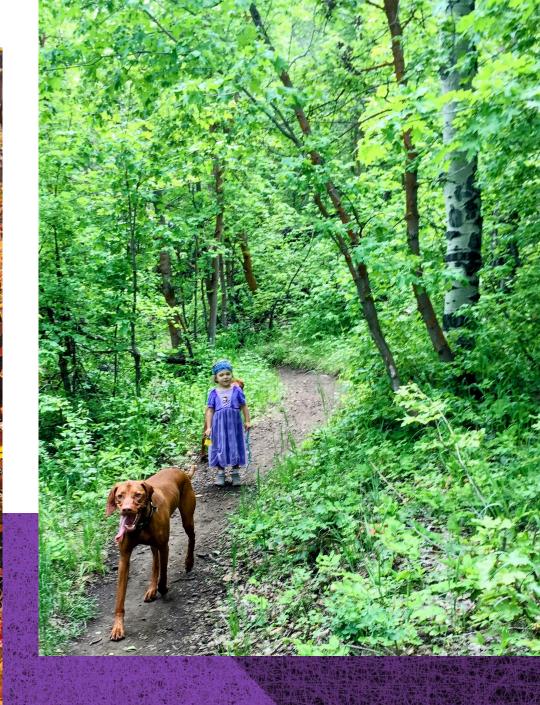
Nature-based stress reduction program elements.

- Pre-survey to assess stress levels and reflection of positive past nature experience.
- TED® style lecture with nature photographs
- Nature experience
- Nature inspired stress reduction pamphlet and local resources
- 0&A
- Post-survey to assess effectiveness and usefulness of the program









igure 4 & 5

THEORETICAL FRAMEWORK

The Stress Reduction Theory (SRT) ⁽¹²⁾ focuses on the natural environment (both indoor and outdoor) and its role in reducing physiological stress, adverse emotions and improved health. Inspired by Roger S. Ulrich's ⁽¹⁴⁾ multiple studies on the relationship between the natural environment and stress, health, and recovery from surgery and illness in the hospital setting. The research discovered for this project aligns with the foundation of the SRT also showing the health and stress reducing benefits for nurses from spending time focusing on natural world.

CONCLUSIONS

In conclusion, nature is an effective and adaptable stress reduction tool that is simple to utilize in any setting. The benefits shown in the literature review and the minimal time requirement make this an implementable and sustainable outlet for ER nurses to utilize for stress reduction and stress recovery.

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Figures

- 1. Personal photograph
- Nature inspired stress reduction pamphlet (outside)
 Nature inspired stress reduction pamphlet (inside)
- 4. Personal photograph
- 4. Personal photograph5. Personal photograph