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### Study in a Day

Nicole Anderson

*Swedish*, [nicole.anderson@swedish.org](mailto:nicole.anderson@swedish.org)

Laura McMakin

*Swedish*, [laura.mcmakin@swedish.org](mailto:laura.mcmakin@swedish.org)

Quinton Gaspar

*Swedish*, [quinton.gaspar@swedish.org](mailto:quinton.gaspar@swedish.org)

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Swedish Learning & Celebration Days 2024

# Study in a Day

Engaging Nursing for Environmental Stewardship

# Background & Problem Statement

- The healthcare industry is a prominent contributor to air pollutant emissions and effects.
- The impact of these environmental conditions on human health and subsequent burden to the health care system is in proportion with the 44,000-98,000 people who die in hospitals each year due to preventable medical errors (Eckelman et al., 2016)
- We need nursing to ACT!



# Our Clinical Question

- What do nurses already know about healthcare and its impact on climate health?
- What motivates (or demotivates) nurses to engage in protective behaviors for the environment?
- What type of education could influence nursing practice to preserve the environment?
- What nursing behaviors reflect environmental stewardship?
- What are some success stories out there?



Does providing information on environmental stewardship impact climate awareness, motivation to preserve the environment, and work behaviors to protect the environment?

# Literature Review Summary

## **Awareness (Leffers & Butterfield, 2018)**

- Nursing has not reached full capacity to address health impacts of climate change because of lack of knowledge and appropriate education

## **Motivation (Atta et al., 2024)**

- Concern for the environment and feelings of utility reduces climate anxiety

## **Behaviors at Work (Cook et al., 2019)**

- Opportunities for nurses to reduce emissions need to be actualized through bedside practice and organizational policy facilitated through nurse-led research

## **Micro-learning (Nissen et al., 2019)**

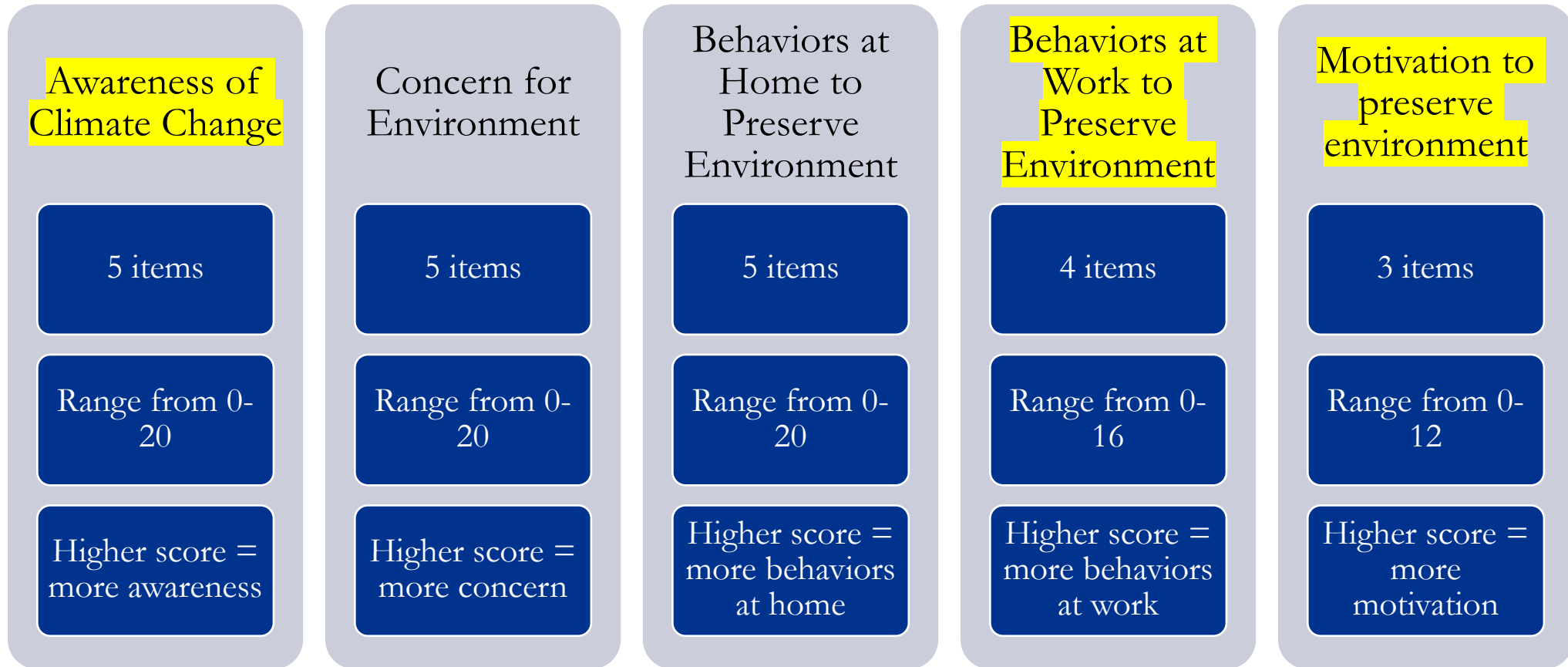
- Breaking down complex information into small chunks, aids in learning.

# Methods

- Recruited attendees at a 2-day nursing research/EBP conference
- Attendees self-selected to participate in survey/learning (N=132)
- Administered Climate Health and Nursing Tool (CHANT Survey) for baseline data
- Provided micro-learning/education on day 1 & 2 of conference
- Repeated the survey on day 2 to compare results

# CHANT Subscales

- Additional Variables: Age, years of nursing experience, and facility where employed
- Descriptive and frequency statistics used to analyze the data



# Results: Demographics

## Three Demographic Factors Measured

### 1. Age

- See normal distribution to the right, respondents averaging in middle age

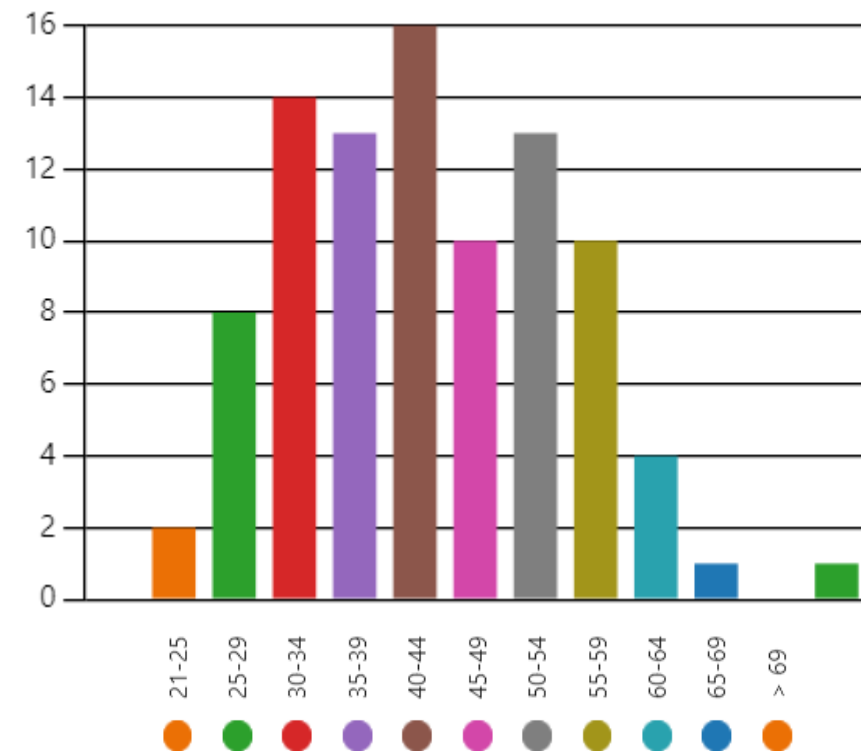
### 2. Number of Years of Experience

- Two peaks at 7 and 17 years with 6 respondents each, most was with 31+ years of experience (13)

### 3. Location/Area of Practice

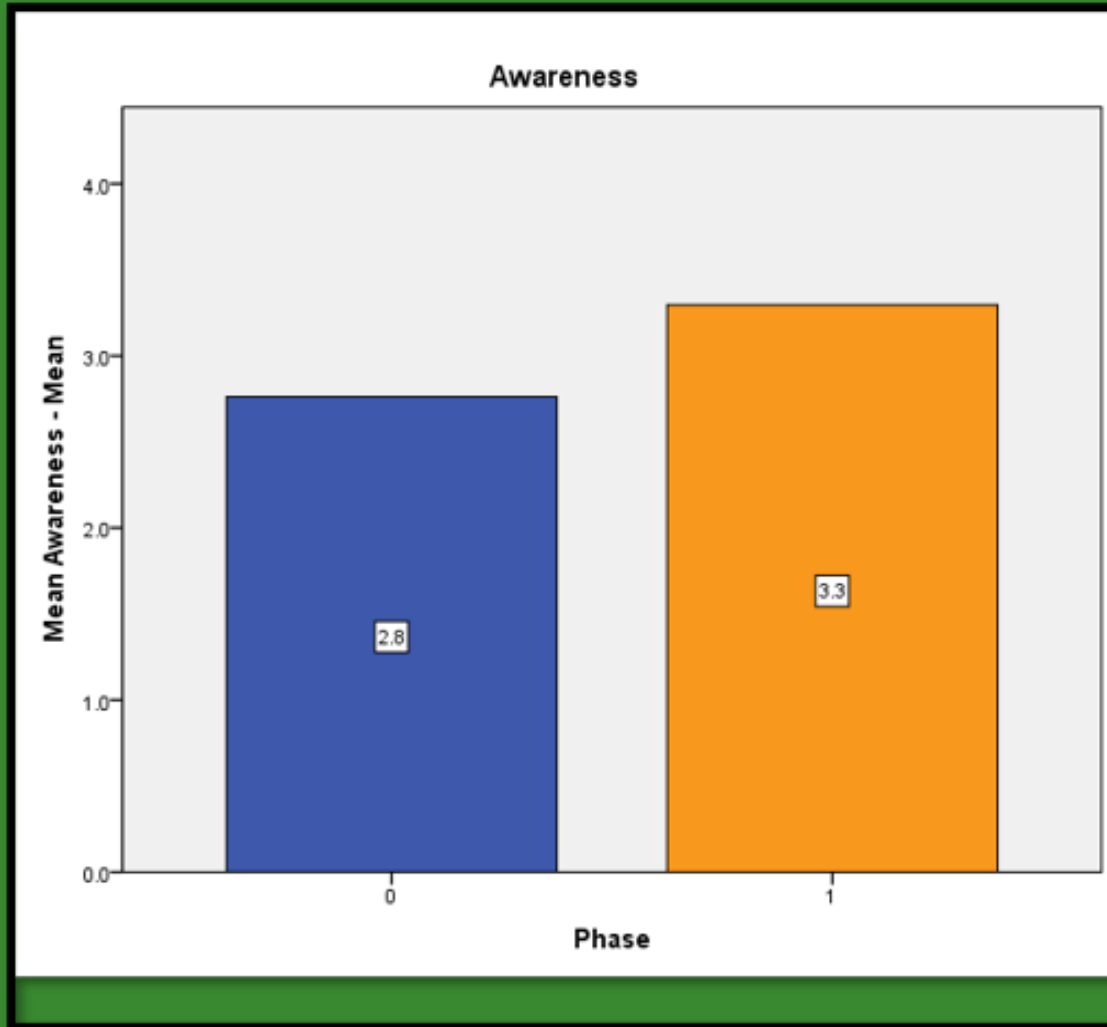
- Over 40 respondents hailed from UW MC (Montlake and NW), another 12 from UW Harborview

Age Distribution





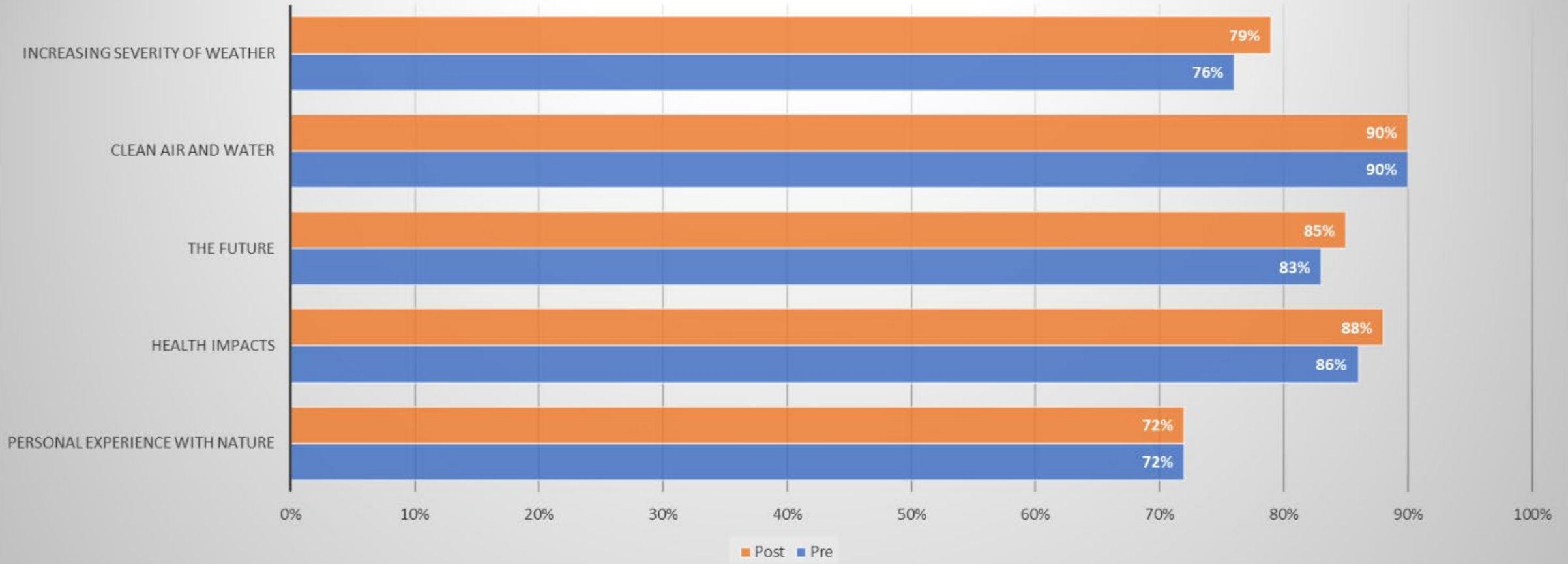
# Results: Nursing Awareness



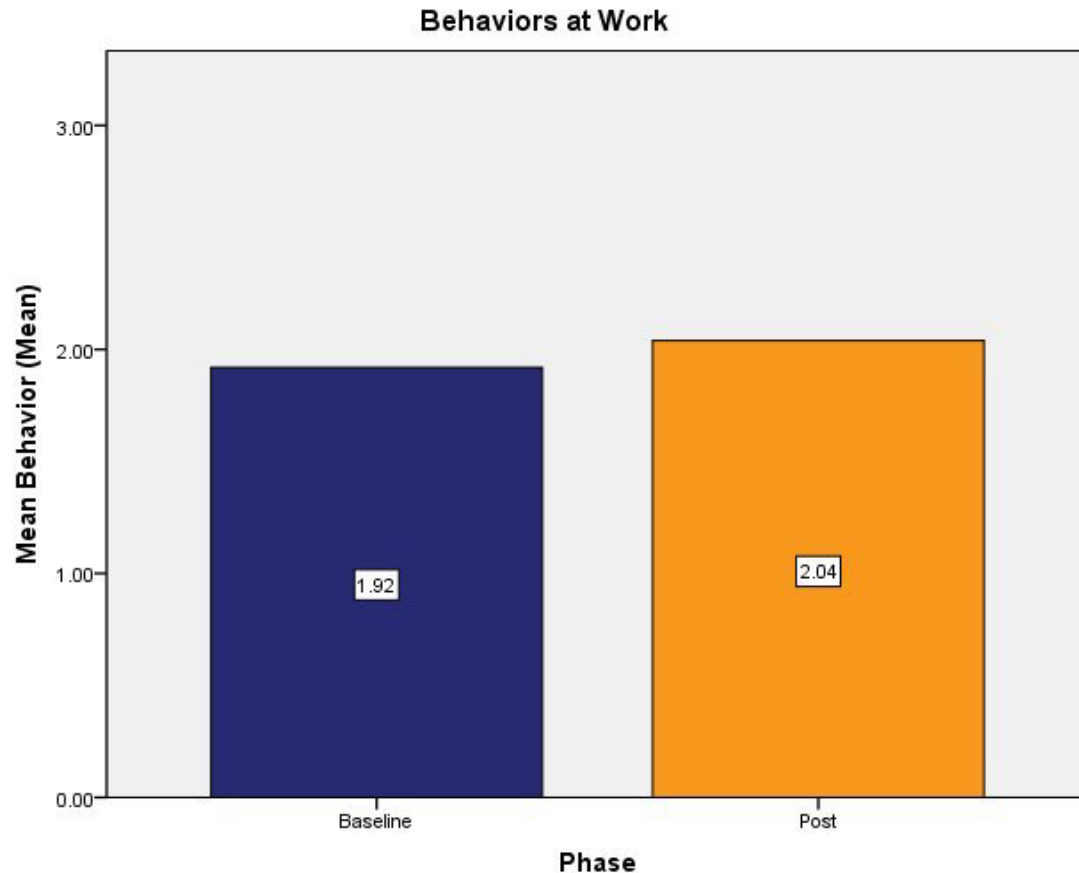
Awareness	Baseline (n =137)	Post (n = 92)	p
Planet has warmed	3.1 ± 1.1	3.3 ± 0.8	.067
Human behavior	3.3 ± 0.9	3.4 ± 0.8	.18
Health Care – 8.5%	1.6 ± 1.3	3.1 ± 1.0	.00
Adverse Health	2.8 ± 1.2	3.2 ± 0.9	.009
Vulnerable populations	3.0 ± 1.2	3.4 ± 0.7	.001
Total	2.8 ± 0.9	3.3 ± 0.7	.086

# Results: Motivation

Top 5 Motivating Reasons to Address Climate Change



# Results: Work Behaviors



Behavior	Baseline (n = 137)	Post (n = 92)	p
Conserve Energy	2.7 ± 1	2.8 ± 0.9	.03
Commute to Work	1.4 ± 1.4	1.5 ± 1.3	.15
Reduce Waste	2.5 ± 0.9	2.5 ± 0.9	.87
Ask leaders	1.1 ± 1	1.3 ± 0.95	.61

# Discussion

## Awareness

- Mean score increased from 2.8 to 3.3

## Motivation

- Participants reasons to preserve the environment did not change between pre and post survey. This suggests that identifying common reasons to preserve the environment can be studied and used to motivate nursing to act.

## Work Behaviors

- Unable to measure actual change in work behaviors due to study design. However, there was a slight increase in scores, which could possibly reflect intent to change behavior.

## Limitations

- The scores reflect general responses rather than being linked to individual change in scores post education
- Unable to measure actual change in work behaviors

# Clinical Implications

1. Nurses need more education and training on the impact healthcare has on the environment.
2. Avoiding a doomsday mindset and finding ways to be involved and engage in environmental stewardship reduces feelings of climate anxiety.
3. Nurses care about the environment and the impact climate change has on health. Nurses can engage in environmentally sustainable behaviors at the bedside and use their collective voices to ask organizations, governments, and the public to act in an environmentally sustainable manner. Nurses can also prepare public for the health impacts of climate change.

Increase nursing awareness



Increased motivation to  
preserve environment



Increase in environmentally  
sustainable behaviors at work

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Thank you!  
Questions  
[nicole.anderson@swedish.org](mailto:nicole.anderson@swedish.org)  
[laura.mcmakin@swedish.org](mailto:laura.mcmakin@swedish.org)  
[quinton.gaspar@swedish.org](mailto:quinton.gaspar@swedish.org)