




Nature As Therapy: A Tool For TR

Randy Wyble, MS, CTRS
Grand Valley State University



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Session Description

- ▶ This session will describe Nature Therapy and the benefits provided by the incorporation of elements of nature into TR practice. Information will be provided about the theories behind why nature has a positive impact on peoples' wellbeing. Additionally, evidence will be examined supporting the use of nature as an intervention.



Learning Outcomes

- ▶ Describe one theory related to the positive impact nature has on peoples' well-being
- ▶ Identify three different ways that they can incorporate elements of nature into their current practice setting
- ▶ Describe two pieces of evidence which support the use of nature as an intervention



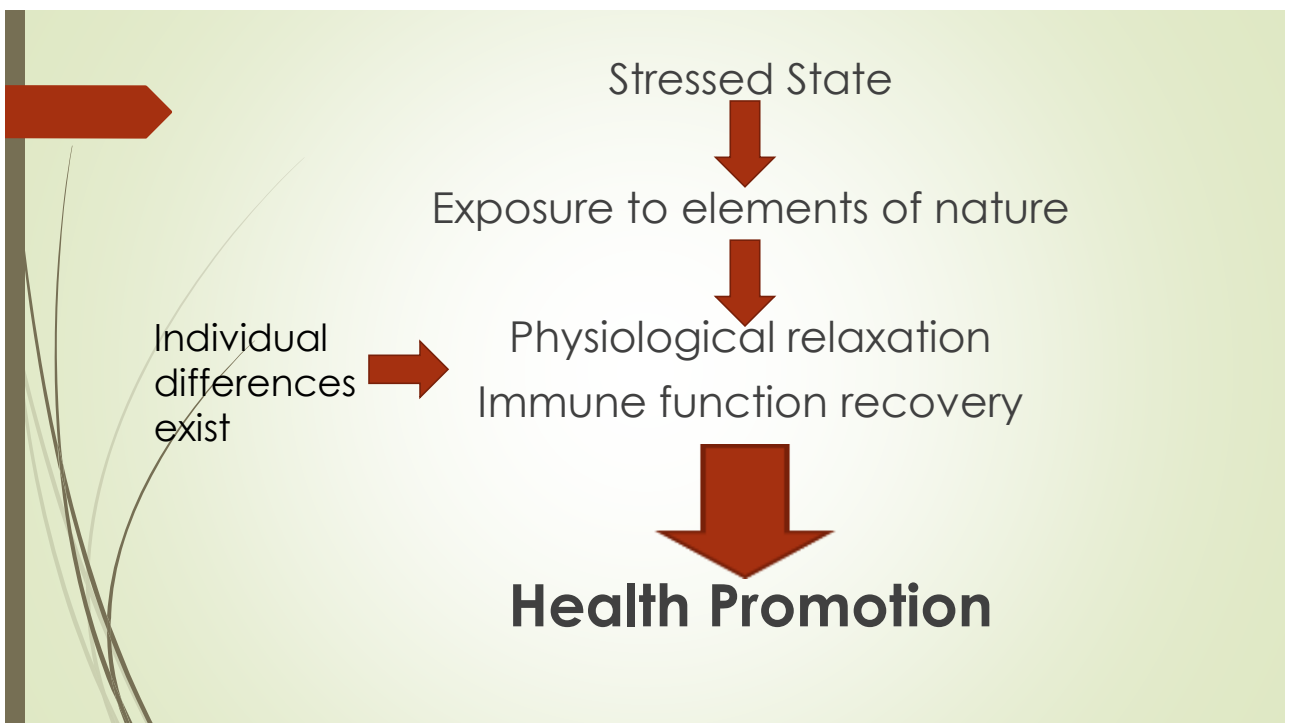
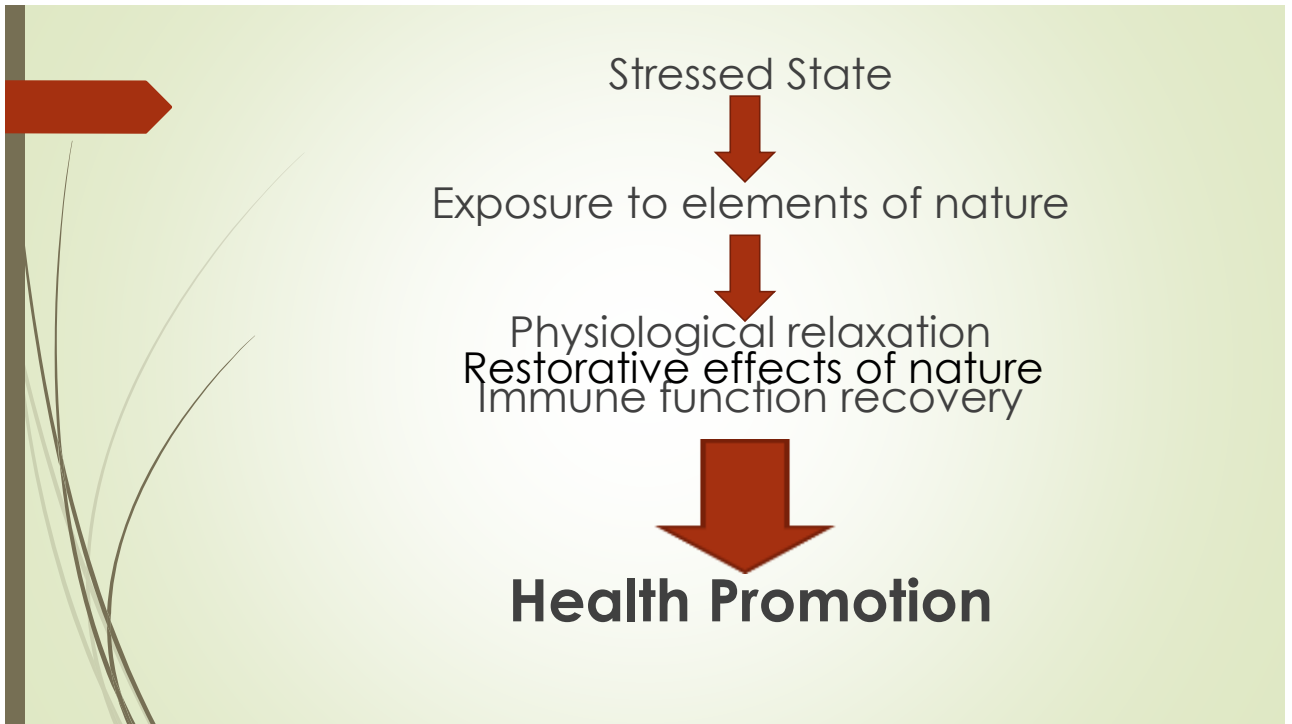
Beauty is...

- ▶ seeing, hearing, smell, taste, touch, proprioception
- ▶ Beauty is...
 - the sight of...
 - the sound of...
 - the smell of...
 - the taste of...
 - the touch of...
 - the sensation of movement as I...



What is Nature Therapy?

- ▶ Nature therapy, in the broadest sense, is the use of nature or natural elements as a means to achieving some type of therapeutic goal.
- ▶ Nature therapy, in a narrower sense, is thought of as the focused use of nature for the **restorative effect** it seems to have on people.



Individual Differences

- ▶ Individual perceptions of nature
- ▶ Law of initial value
- ▶ Personality type








Why Nature Therapy....Why Now?


- ▶ Last Child in the Woods (Louv, 2005)
 - ▶ Nature Deficit Disorder (less time spent in natural settings)
 1. Parental fears
 2. Reduced access to natural areas
 3. Technology

- ▶ Advent of Mobile Technology



Why Nature is Restorative... Hypothesis and Theories

- ▶ Wilson's Biophilia Hypothesis (1984)
 - ▶ Innate tendency to connect to other living things
 - ▶ Product of biological evolution
 - ▶ All life is interconnected and we are genetically wired to care about other life forms as they support human survival.
 - ▶ Being underexposed causes tension due to this unfulfilled need while being exposed to nature causes a reduction in tension as this need is fulfilled.



Why Nature is Restorative... Hypothesis and Theories

- ▶ Attention Restoration Theory (ART)
 - ▶ People have capacity for directed attention (CDA)
 - ▶ Over the course of one's day, this capacity is reduced and we experience directed attention fatigue (DAF)
 - ▶ Non-natural environments are very taxing on our directed attention
 - ▶ DAF leaves us vulnerable to the negative effects of stress

Why Nature is Restorative... Hypothesis and Theories

- ▶ Attention Restoration Theory (ART) (Kaplin & Kaplin, 1989)
 - ▶ Our CDA is restored when we enter a natural environment because
 - ▶ We escape our usual settings and stimuli
 - ▶ Become fascinated with (absorbed in) the natural surroundings
 - ▶ Natural settings are less taxing on our directed attention

Levels of Evidence – A Quick Review





Nature is Restorative The Evidence

- ▶ Types of effects supported by research
 - ▶ Faster physical recovery from illness/injury
 - ▶ Improved immune functioning
 - ▶ Short-term recovery from stress
 - ▶ Long-term overall improvement on people's health and well-being
- ▶ Types of nature-based interventions used
 - ▶ Stimulation via elements of nature
 - ▶ Immersion in nature



Faster physical recovery

- ▶ Gallbladder Surgery (Ulrich, 1984)
 - ▶ Compared recovery time among patients who had different views from their hospital room windows
 - ▶ Brick wall v small stand of deciduous trees
 - ▶ Brick wall +1 day of recovery
 - ▶ Brick wall +3 more notes indicating the experience of depression and/or pain



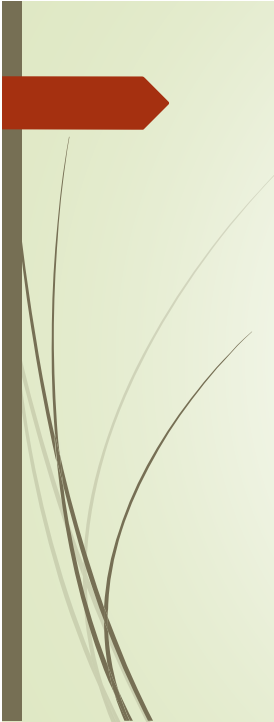
Improved immune functioning

- Sample of people with weakened immune systems
 - Compared activity level of natural killer (NK) cells (indicator of immune system functioning)
 - Found increased NK cell activity following forest bathing
 - Found increased NK cell activity maintained for 1 wk (females) and 1 month (males) following forest bathing
 - Found increased NK cell activity following olfactory stimuli (wood oils)



Short-term recovery from stress

- Shinrin-yoku (forest bathing)
 - “taking in the forest atmosphere through all of our senses”
 - Compared salivary cortisol levels (as stress indicator) before and after forest bathing
 - Found lowered salivary cortisol levels
 - This has been replicated many times using different stress indicators including blood pressure and heart rate
 - Also has compared these indicators after similar interactions with urban areas



Long-term overall improvement on people's health and well-being

- ▶ Similar findings using various indicators of physiological relaxation has been found using:
 - ▶ Visual stimulation
 - ▶ Tactile stimulation
 - ▶ Exposure to urban green spaces
(Living near urban green spaces is correlated with lower mental distress, lower incidence of disease)



Your Experiences

- ▶ How is nature incorporated into the interventions you provide?

Incorporating Evidence Into Practice

► PICO Process

P	Population, Patient, Problem
I	Intervention
C	Comparison
O	Outcome

- Does visual exposure to pictures of nature help reduce agitation among those with moderate dementia?

Incorporating Evidence Into Practice

- Found this article:

Effects of viewing a preferred nature image and hearing preferred music on engagement, agitation, and mental status in persons with dementia

And this conclusion:

The authors suggest caregivers for those with Alzheimer's disease and other dementias can effectively use nature images and music to improve engagement and reduce disordered behaviors, thus potentially enhancing quality of life for the care recipient as well as the caregiver while possibly reducing the costs of medications used to control dementia-related undesirable behaviors.



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