Gardens in Health Care: Rehabilitation, Recovery & Restoration

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Connecting with nature impacts positive health outcomes.
Mission Statement

Our legacy is good health for our people, our patients, our communities, our world.
Objectives:

1. Summarize the Theory of Supportive Design.

2. Identify research to support and promote nearby nature in patient care services.

3. Describe garden elements and programming to support health and well-being.
“Most hospitals have manicured shrubs and grounds. The difference here is the gardens are part of the therapeutic space, where there are patients out in them.”

Wall Street Journal
April 6, 2010

George Brown, M.D., President, CEO
Legacy Health
STRESS is pervasive in health care settings

Patient centered care

Family centered care

Employee restoration
Evidence base to support gardens in health care

Theory of Supportive Design

A. Social support

B. Choices leading to sense of control

C. Movement, mild exercise & rehabilitation

D. Nature experience benefits
Evidence-Based Garden Design Theory:
Design for Reducing Stress, Improving Outcomes
(Ulrich, 1991, 1999)

- **SOCIAL SUPPORT**
  - Patients
  - Family
  - Staff

- **CONTROL**
  - Privacy
  - Choices
  - Escape

- **ACTIVITY**
  - Exertion
  - Rehabilitation

- **NATURE & DISTRACTIONS**
  - Plants, Flowers
  - Water, Wildlife
  - Nature Sounds

**STRESS RESTORATION & BUFFERING**

**IMPROVED HEALTH OUTCOMES**
(Clinical outcomes, patient satisfaction, cost of care)

Courtesy of Roger S. Ulrich

- Chapter two
Research to inform planning, funding and program decisions

- Human Ecology Review
- Journal of Obstetric, Gynecologic, & Neonatal Nursing JOGGN
- American Journal of Critical Care
Human Ecology Review


This literature review identified six overarching design criteria:

1. encourage human activities
2. a setting for sensory stimulation
3. develop the space for safety and security
4. encourage present moment awareness
5. consider the culture of the population using the space
6. promote nature as a metaphor for healing
Nurses can present information about the value of natural restorative environments in the workplace.

- Employee lounges with plants and window views of nature.
- Gardens, picnic tables, and bird feeders outdoors.
- Promote attentional health and restoration by incorporating nature.
- Maintaining gardens accessible to staff, patients, and families.

- To compare levels of posttraumatic stress disorder, anxiety, and depression
- Significant decrease after 3 months after the experience. Many family members still had significant risk for PTSD and borderline anxiety and depression at 3 months
Legacy Good Samaritan Medical Center 1015 NW 22nd Ave. Portland Oregon 97210
Legacy Good Samaritan Medical Center
Stenzel Healing Garden 1997
Rehabilitation Institute of Oregon
Rehabilitation patients in horticultural therapy
Movement, mild exercise & rehabilitation therapies for everyone in the garden
Free Garden Tour and Neighborhood Nature Walk
Legacy Mount Hood Medical Center Healing Garden 2009
Gresham, Oregon
View out the window to nature
Nature experience
Legacy Meridian Park Medical Center
Ide Healing Garden 2010 Tualatin, Oregon
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Choices and sense of control
Oregon Burn Center Garden 2004
Legacy Emanuel Medical Center
Oregon Burn Center Garden
Nature experience in the view out the window
Theory of Supportive Design---Social Support
Social and emotional support
Burn Concern Support Group

Patient centered care---patients actively engaged in and directing their care.
Behavioral Health Garden 2008
Legacy Emanuel Medical Center
decrease in depression and anxiety

improved social interactions

increased efficacy

Well-designed gardens employ and engage all of the senses.
The Children’s Garden at Legacy Emanuel 1997
Designing for families to enjoy time together in the garden
Pediatric Nature Stations
Movement, mild exercise & rehabilitation therapies
Rehabilitation therapies in the garden
Recreational therapy
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Choices and getting our needs met
Choice and control
Terrace Garden at Legacy Emanuel Medical Center (before)
Family Birth Center & Cardiovascular ICU: A Nature Place
Overall goals for Legacy Research Institute

To study the effects of garden exposure in three very different populations

Study 1 – Birthing Study

Study 2 – Family Study

Study 3 – Nurse Study

Garden and research grant funded by TKF Foundation Nature Sacred Initiative www.naturesacred.org.

Legacy garden research:
http://www.legacyhealth.org/for-health-professionals/legacy-research-institute.aspx
http://www.theintertwine.org/blog/nature-hospitals
http://www.opb.org/radio/programs/thinkoutloud/segment/international-health-care-design-researcher-roger-ulrich-on-gardens/
Study 4 observational mapping study

- Jennifer Antick, PhD
  Pacific University
  Health Track PhD students

Study 5 POE
Music in the tree tops
Stress coping and birthing 24-7
Nature: A stress coping resource for employees 24-7
Four seasons of sensory stimulation in nature
Nature experience
Nature experience and the borrowed view
Nature and nutrition
Nearby nature
Resources

American Horticultural Therapy Association annual conference

Philadelphia, Oct. 11-12, 2014

Stephen R. Kellert
Yale University, School of Forestry & Environmental Studies

“Nature’s Role in Human Health, Productivity and Wellbeing”
Increasing action around health and nature

Conduct more research
TKF Foundation Nature Sacred Initiative

Collect and share the evidence base
Therapeutic Landscape Network
Urban Forestry Urban Greening Research

Increased interdisciplinary and inter-agency collaborations
Intertwine Alliance
USDA USFS
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www.legacyhealth.org/gardens