Optimal Healing + Working Environments
Designing Supportive Spaces for Professional Caregivers

A Research Study and Design Project by: Amy Griffin
"There has got to be something better than this."
Optimal Healing Environments

The cornerstone for this research study

- Building Healing Spaces
- Developing Healing Intention
- Experiencing Personal Wholeness
- Cultivating Healing Relationships
- Creating Healing Organizations
- Applying Collaborative Medicine
- Practicing Healthy Lifestyles
Optimal Healing Environments

The cornerstone for this research study

- **Developing Healing Intention**
  - **Healing intention**: conscious determination to improve one’s well-being and health and the establishment of hope for recovery

- **Experiencing Personal Wholeness**
  - **Personal wholeness**: “…the experience of well-being that occurs when the body and mind are at peace and working harmoniously”

- **Cultivating Healing Relationships**
  - **Healing relationships**: social interactions that provide a sense of belonging and enhance well-being and healing

- **Practicing Healthy Lifestyles**
  - Offering programs that encourage: healthy eating, exercise, stress management

- **Applying Collaborative Medicine**
  - **Integrative healthcare**: combination of both conventional medicine and complementary and alternative medicine (CAM)

- **Creating Healing Organizations**
  - **Healing Organization**: “One that values and sustains the attitudes and behaviors that facilitate recovery, repair, and wholeness”

- **Building Healing Spaces**
  - Designing an environment conducive to healing
8 Components of Building Healing Spaces

- Architecture
- Light
- Color
- Artwork
- Nature
- Water
- Music
- Aroma
LACK OF WAYFINDING COULD CAUSE:
• Elevated blood pressure
• Headaches
• Feelings of anxiety
  (Hidayetoglu et al., 2012)

DESIGN RECOMMENDATIONS
• Avoid a maze of corridors (Stichler, 2008)
• Wayfinding – use minimal signage and more landmarks
  (Jarvis, 2011)
• Initial patient destinations within sight of main entrance
  (Jarvis, 2011)
• Places of “escape” for professional caregivers
  (Ulrich, 1991; Fouts & Gabay, 2008)
THE QUALITY AND THE QUANTITY OF LIGHT CAN AFFECT:

• Mood
• Satisfaction
• Well-being


DESIGN RECOMMENDATIONS

• Appropriate lighting levels (Block, 2004b; Jarvis, 2011, Cesario, 2009)
• Even general lighting (Horton, 1997)
• Avoid harsh contrasts and deep shadows (Horton, 1997)
• Lighting with a high color-rendering index (Horton, 1997)
• Natural light throughout the building (Schweitzer et al., 2004; Block, 2004b; Center for Healthcare Design, 2007a)
“It is clear that color can be used as a powerful tool and can provide interesting [and] rich... breaks from the expected neutral palettes of the past” (Guido, 2011, p. 1).

**DESIGN RECOMMENDATIONS**

- Avoid bright, warm color tones and avocado or yellow-green tones (Block, 2004).
- Use cool colors for wayfinding (Hidayetoglu et al., 2012; Nussbaumer, 2009).
**ARTWORK CAN:**

- Lower stress and anxiety levels,
- Improve mood
- Aid in the healing process
  (Schweitzer et al., 2004; Ulrich 1991)

**DESIGN RECOMMENDATIONS**

- Choose nature inspired artwork
  (Ulrich, 1991; Schweitzer et al., 2004; Cesario, 2009)
- Avoid abstract art
  (Hathorn & Nanda, 2008; Ulrich, 1991)
- Consider the sightline of the patient
  (Hathorn & Nanda, 2008)
**Nature**

**VIEWS OF NATURE:**

- Reduce fear
- Encourage positive feelings
- Lower blood pressure
- Capture and hold interest
- Increase work efficiency
- Foster restoration from anxiety or stress

(Ulrich, 1984, 1991; Schweitzer et al., 2004; Mroczek et al., 2005, Cesario, 2009)

**DESIGN RECOMMENDATIONS**

- Gardens
- Views to nature through windows
- Plants and other natural elements indoors
- Nature as wayfinding – landmarks
- Artwork depicting natural scenes or elements

(Center For Healthcare Design, 2007a; Whitehouse et al., 2001; Ulrich, 1984; Picker Institute, 1997; Mroczek et al., 2005).
MUSIC CAN:

- Increase comfort
- Lower heart rate
- Lower anxiety levels
- Alleviate nausea and vomiting

(Schweitzer et al., 2004; Block, 2004b; Ananth, 2008a; Cesario, 2009)

DESIGN RECOMMENDATIONS

- Provide space for live instrumental music in the atrium/foyer (Stichler, 2008; Mroczek et al., 2005)
- Provide speakers to play music throughout the facility (Mroczek et al., 2005)
- Isolate music to public areas (Mroczek et al., 2005)
Water & Aroma

**POSITIVE EFFECTS:**

- Restorative (Mroczek et al., 2005)
- Positive distraction (Center for Health Design, 2007; Ulrich 1991; Jarvis, 2011)

**DESIGN RECOMMENDATIONS**

- Aquarium
- Fountains

**POSITIVE EFFECTS:**

- No statistically significant impact in anxiety levels (Holm & Fitzmaurice, 2008)

**DESIGN RECOMMENDATIONS**

- Limit the use of strong aromas (Block, 2004b)
Research Question

What features of the built environment in the outpatient cancer center selected for this study impact the professional caregivers’ well-being and performance?

**LOCATION:** A community cancer center in the Southeastern region of the United States

**PARTICIPANTS:** 1 administrator, 4 Nurses, and 1 Counselor for a total of 6 healthcare professionals

**METHODOLOGY:** 5 individual interviews, 16 hours of observation, and photo documentation

= 1 professional caregiver
Thesis Research Study
A Supportive Environment for Professional Caregivers
Architecture

- 67% Stated that the cancer center is beautiful and doesn’t have an institutional feel
- 67% Felt that co-workers are appropriately located
- 50% Expressed that their workspace was appropriate and provided enough storage
Felt that the hallways are confusing and too long

Stock up on supplies to avoid having to walk long distances when they need something

Take shortcuts through empty exam rooms to avoid walking down long hallways
Professional caregivers have to walk 150 feet to the chart storage area and an additional 30 feet to retrieve patients from waiting area.

Rather than keeping charts in chart storage room, professional caregivers began storing charts under the nurses station desks.
Professional caregivers take shortcuts through empty exam rooms to get to copy room and CT area to avoid walking long distances.
Architecture

- Mentioned that the break room is too small (67%)
- Avoid the break room during busy times of the day and sometimes take breaks in their cars (33%)
- Enjoy the window in the break room on the second level (33%)
Lighting

- Felt they have adequate lighting: 83%
- Appreciate the control they have over the lighting: 100%
Said colors in cancer center are calming and relaxing

Noted that colors were not too bright and not too dull

Expressed a preference for a wider range of colors
Artwork

- Appreciated the fact that the artwork was of local places: 83%
- Appreciated that the artwork supports local artists: 33%
- Appreciated that the artwork rotates quarterly: 50%
“Everyone complains about those birds! They look like they’re about to peck your eyes out!”
Nature

100%
Have positive impressions of the garden area

67%
Appreciate that the cancer center is surrounded by woods

50%
Mentioned that the staff outdoor eating area is unappealing and lacks privacy from patients
Remarked that the sound of the water is soothing
Design Solution

a Theoretical Cancer Center in Northeast Florida
Concept
Cancer Center Entry
Clinic Waiting Area
Professional Caregiver Respite Space
Professional Caregiver Respite Space
Chemotherapy Infusion Suite
Chemotherapy Infusion Suite
Amenities

- Salon
- Boutique
- Childcare Center
- Chapel
- Cancer Resource Center
- Café
- Kitchen
Cancer Resource Center
Spiritual Wellness Center
Children's Play Area

- ACTIVE PLAY
- QUIET PLAY
- CHECK-IN
Childcare Center
Boutique & Salon Entry
Café (Drink Area)
Study Overview

This exploratory study, combined with a thorough review of literature informed the design of a cancer center project. With little research information currently available regarding the professional caregiver experience in a healthcare setting, the purpose of the study was to discern how the built environment affects professional caregivers’ well-being, satisfaction, and productivity. The study results revealed that the built environment does in fact have a significant effect upon the professional caregiver experience.

Optimal Healing Environment Model

The research study was based upon the “Optimal Healing Environment” (OHE) model. Created by the Samueli Institute in 2002, the OHE model presents a framework for healthcare environments to foster a healing environment. The seven domains of the OHE model, listed to the left, provide guidelines for healthcare facilities. This model looks beyond the design of a space into the way healthcare facilities run their business.

By using OHE model as a guide to designing healing spaces, designers have a powerful opportunity to create an environment that enhances the well-being of patients, visitors, and professional caregivers.

Building Healing Spaces

The thesis research study explored the impact of the built environment on professional caregiver well-being, productivity, and satisfaction by looking at the Building Healing Spaces components: architecture, lighting, color, artwork, nature, and water. To learn more, scan the QR Code or visit the website listed below.