

BIOPHILIA

PHYSICAL HEALTH

Talking Points



Keywords: Nature, healing, biophilia, garden, pain, health, green space

Constructed Nature Exposure

- Viewing a nature scene and listening to accompanying pastoral sounds as a form of distraction therapy may reduce pain (Lechtzin 2003)
- Nature based distraction therapy is portable, compact, does not require costly training to use (Lechtzin 2010)
- Post op patients with the tree view had shorter postoperative hospital stays, had fewer negative evaluative comments from nurses, took fewer moderate and strong analgesic doses, and lower scores for minor post-surgical complications (Ulrich 1984)

Healing Gardens

- Therapeutic horticulture was formally introduced to medicine in the US following the end of World War II as occupational therapy for veterans
- Horticulture therapy improves health; well-being and life satisfaction; encourages emotional, cognitive and/or sensory motor functional improvement; increases social participation; increases ability for re-employed. (Soderback 2004)

Real Nature Exposure

- “Forest bathing” (short, leisurely visits to a forest) increases levels of naturally occurring anticancer proteins
- Essential oils released from trees are antimicrobial and strengthen the immune system
- Habitual forest bathing may help to decrease the risk of psychosocial stress-related disorders, mental illness caused or influenced by life experiences (e.g. substance-related disorders, anxiety, schizophrenia, mood disorders, eating disorders, identity conflict, etc.). (Li 2010)
- Residents of neighborhoods with poor living conditions and few environmental amenities display more symptoms of chronic stress and poor health regardless of preexisting conditions, especially groups who spend a large amount of time in the home. (Van den Berg 2007)

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IV. KEY REFERENCES

Review Articles

- Li, Qing. "Effect of forest bathing trips on human immune function." *Environmental health and preventive medicine* 15, no. 1 (2010): 9.
- Van den Berg, Agnes E., Terry Hartig, and Henk Staats. "Preference for nature in urbanized societies: Stress, restoration, and the pursuit of sustainability." *Journal of social issues* 63, no. 1 (2007): 79-96.
- Söderback, Ingrid, Marianne Söderström, and Elisabeth Schäländer. "Horticultural therapy: the 'healing garden' and gardening in rehabilitation measures at Danderyd Hospital Rehabilitation Clinic, Sweden." *Pediatric rehabilitation* 7, no. 4 (2004): 245-260.

Primary Research

- Hartig, Terry, Gary W. Evans, Larry D. Jamner, Deborah S. Davis, and Tommy Gärling. "Tracking restoration in natural and urban field settings." *Journal of environmental psychology* 23, no. 2 (2003): 109-123.
- Diette, Gregory B., Noah Lechtzin, Edward Haponik, Aline Devrotes, and Haya R. Rubin. "Distraction Therapy With Nature Sights and Sounds Reduces Pain During Flexible Bronchoscopy: A Complementary Approach to Routine Analgesia." *Chest* 123, no. 3 (2003): 941-948.
- Ulrich, Roger S. "View through a window may influence recovery from surgery." *Science* 224, no. 4647 (1984): 420-421.
- Ulrich, Roger S. "Biophilia, biophobia, and natural landscapes." *The biophilia hypothesis* 7 (1993): 73-137.
- Ulrich, Roger S. "Effects of gardens on health outcomes: Theory and research." *Healing gardens: therapeutic benefits and design recommendation* (1999).

Popular Press

- DiSalvo, David. "Try A Weekly Dose Of Nature To Boost Mental And Physical Health." *Forbes*. July 25, 2016. Accessed December 14, 2018. <https://forbes.com/sites/daviddisalvo/2016/07/25/try-a-weekly-dose-of-nature-to-boost-mental-and-physical-health/#305dbc204edd>.
- Hamblin, James. "The Nature Cure" *The Atlantic*. October, 2015. Accessed December 14, 2018. <https://www.theatlantic.com/magazine/archive/2015/10/the-nature-cure/403210/>.

Print Media

- Marcus, Clare Cooper, and Marni Barnes. *Gardens in healthcare facilities: Uses, therapeutic benefits, and design recommendations*. Concord, CA: Center for Health Design, 1995.