USC Well-being Collective

Biophilic Design

A USC Well-being Collective Toolkit

September 2020

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The USC Well-being Collective harnesses the power of Collective Impact for a variety of distinct and often siloed academic departments, administrative units, recognized student organizations and local non-profits to come together and work with the whole student community towards our common agenda: **strengthening a campus culture driven by student wellbeing.**

This goal is supported by four interrelated strategic goals:

Equity and Inclusion – enhancing the culture of equity and inclusion
Resilience and Thriving – creating a culture where individuals and communities thrive
Alcohol and Other Substance Use – disrupting the culture of at-risk substance use
Consent and Healthy Relationships — fostering a culture of consent and healthy relationships

Introduction

Today, mental health professionals have access to various levels of treatment that can effectively help people with a variety of mental health concerns. Many colleges are going beyond simply providing treatment services by expanding efforts to prevent mental health problems from arising and to promote the mental well-being of all students. In other words, they are adopting a public health approach to address the social and environmental risk factors that influence student mental health (Davidson & Locke, 2010; SPRC, 2004). Factors affecting student mental health and ability to thrive can be shaped by individual attitudes and beliefs about mental illness, interpersonal group norms, institutional environments, community access to mental health resources and public policies. With the practice of connecting young people early to mental hygiene skill building, emotional support and treatment, institutions can cultivate a culture where individuals and communities thrive.

Biophilic design creates spaces that are restorative, health-promoting, and integrative within functionality of both the place and the ecosystem to which it is utilized. Biophilic design acknowledges various influential environmental factors can affect indicators of health and well-being. Objects and elements of the natural world are incorporated into the built environment of the space. These natural elements encompass both living and artificial representations of the natural world, examples range from live plants to photographs of landscapes. Routine connections with nature promotes mental hygiene and thriving, as experiences of natural environments altogether provide greater emotional restoration, with lower instances of tension, anxiety, anger, fatigue, confusion and mood disturbance than urban environments with limited characteristics of nature. (Alcock et al., 2014).

Biophilic Design

Toolkit Description:

Incorporating biophilic design in space planning

Strategic Goals:

Equity + Inclusion
Thrive + Mental Health
At-Risk Substance Abuse
Consent + Healthy Relationships

Strategies:

Building healthy public policy
Creating supportive environments
Strengthening community action
Developing personal skills
Re-orienting all sectors towards prevention

A Toolkit For:

Faculty
Staff
Student
Parent/Gaurdian
Administrator

Goal

Biophilic design is the deliberate practice of incorporating elements of the natural world into the built environment to positively impact human well-being. This toolkit aims to provide ideas and strategies for incorporating biophilic design in the educational setting in order to foster positive mental health and community well-being.

Intended Outcomes

- Physiological stress reduction (Grahn & Stigsdotter, 2010; Salingarios, 2012; Alcarsson et. al, 2010; Yin et. al, 2018)
- Improved information processing and attention (Hunter et. al, 2010)
- Improved memory and motivation (Jahncke et. al, 2011)
- Increased productivity and workplace satisfaction (Gray & Birrell, 2014)

Evidence of Effectiveness

Scientifically Supported - Strategies with this rating are most likely to make a difference. These strategies have been tested in many robust studies with consistently positive results.

Implementation Ideas

For Faculty/Students/Staff

Natural analogues can be integrated into buildings, meeting spaces, lounges and rooms. This could include potted plants, living walls, plant installations, wood/ stone or other natural elements, and indoor water fixtures. To the extent possible, attempt to position workstations or desks in view of natural light and natural landscapes.

When natural analogues are not available, the following can be used, which have been found to have similar effects:

- depictions of natural landscapes and greenery
- artificial plants/ greenery
- ED lights that adjust their color over the course of the day to mimic the sun
- images of trees, leaves, forests, or other natural elements on screens (e.g. residence halls, academic buildings)
- Nature-inspired/ ‘earth-tone’ color palettes and shapes (e.g. blue, green and yellow palettes; more natural, curved organic forms of furniture or artwork as opposed to geometric shapes like squares and triangles)
- Calming, natural tones on rugs and window coverings
- Playing natural sounds (e.g. birds, water etc) in busy areas such as dining halls

Administrator

Campus planners can commit to biophilic design principles for renovations and construction of new campus areas.

Policies for utilization of natural materials and colors: leather, stone, copper, bronze and wood

Campus planners may construct additional campus areas as wildlife habitats (birdhouse, honeybee apiary; hedges, flowering vegetation)

Implementation Resources

Terrapin Bright Green: 14 Patterns of Biophilic Design

References

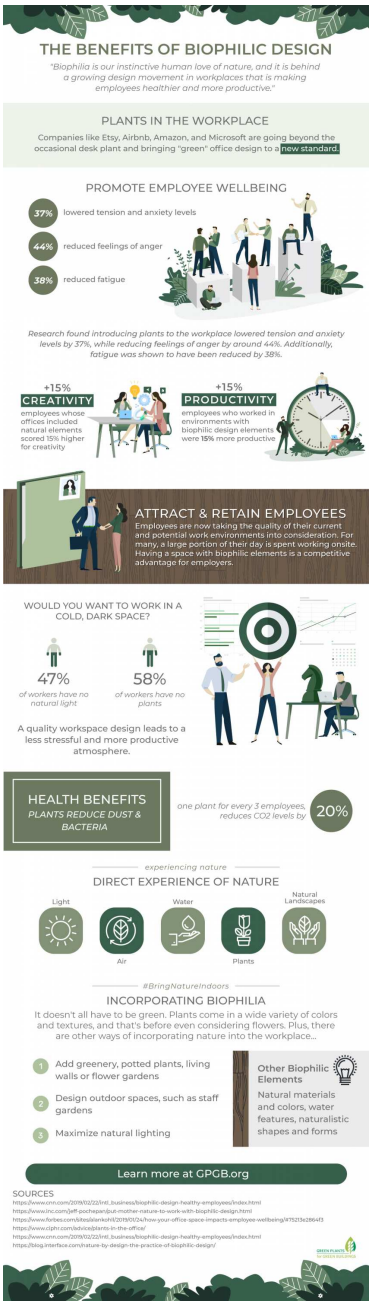
Alcock, I., M.P. White, B.W. Wheeler, L.E. Fleming, & M.H. Depledge. (2014). Longitudinal Effects on Mental Health of Moving to Greener and Less Green Urban Areas. Environmental Science & Technology, 48 (2), 1247-1255.

Alvarsson, J., S. Wiens & M. Nilsson (2010). Stress Recovery during Exposure to Nature Sound and Environmental Noise. International Journal of Environmental Research and Public Health, 7 (3), 1036-1046.

Grahn, P. & U.K. Stigsdotter (2010). The Relation Between Perceived Sensory Dimensions of Urban Green Space and Stress Restoration. Landscape and Urban Planning 94, 264-275.

Kellert, S.F., J.H. Heerwagen, & M.L. Mador Eds. (2008). Biophilic Design: The Theory, Science & Practice of Bringing Buildings to Life. Hoboken, NJ: John Wiley & Sons.

Produced Examples



USC Student Health

Office for Health Promotion Strategy

Backbone for the USC Well-being Collective

The Office for Health Promotion Strategy, backbone for the USC Well-being Collective, is embedded in USC Student Health and serves as the administrative core to support campus partners in aligning their strategic objectives with student wellbeing. The Office for Health Promotion Strategy works with participating partners, the Steering Committee, and most importantly, students to activate change at USC.

For additional questions, please contact: USC Student Health, Office for Health Promotion Strategy, Backbone for USC Well-being Collective at wellbeingcollective@usc.edu

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