



KEY POINT SUMMARY

OBJECTIVES

The objective of this research was to explore the relationship between evidence-based design of outdoor environments and the potential for improved health outcomes of U.S. veterans of combat.

Collaborative design: Outdoor environments for veterans with PTSD

Wagenfeld, A., Roy-Fisher, C., & Mitchell, C. 2013 | *Facilities*. Volume 31, Issue 9/10, Pages 391-406

Key Concepts/Context

The environment has a positive impact on health outcomes. The authors indicate that this is particularly significant in the case of residential healthcare facilities where patients are required to stay for long periods of time. Pointing to the lack of research on design concerns for U.S. veterans with post-traumatic stress disorder (PTSD), the authors undertake a literature review to make recommendations for the design of rehabilitative and residential facilities for this group. They surmise that outdoor environments in healthcare facilities for veterans should be designed for a sense of control, social support, and experience of nature.

Methods

A literature review was conducted by the authors. Findings from existing research was summarized to make recommendations.

Findings

Facility design for veterans should support a variety of activities for their physical and psychological rehabilitation – it should create an ambiance for meaning and purpose. Designing for meaning and purpose entails designing for a sense of control, social support, and experience of nature.

- Designing for a sense of control: In light of their military training, retaining a sense of control is of critical importance to veterans. The following design features restore and assure a sense of control: familiarity, reduced perceptual and sensory distortion, avoidance of ambiguity, spaces for self-care activities, defensible spaces, clear wayfinding, and choices. The authors discuss the last three features in the context of outdoor environment design for veterans with PTSD.



- Defensible spaces: Veterans need their environments to be defensible in order for them feel safe and in control. Such spaces would be without sharp turns, blind corners, or plants that obscure pathways.
- Wayfinding: Clear wayfinding cues can curtail stress and perceived uncertainty, especially when a veteran is learning to use a prosthetic device.
- Choice: Veterans spend a lot of time waiting for healthcare professionals in waiting rooms.

In addition to distractions like televisions and reading material, views of nature or access to comfortable outdoor areas would give the waiting veteran a choice of things to do – this would reduce stress and anxiety and retain sense of control.

- Social capital: Positive social support improves health outcomes in the case of mental illnesses, and this is crucial in the case of veterans with PTSD. Given that evidence supports that relaxing places to sit nurture the development of social capital, the authors recommend incorporating the following features in outdoor environments:
 - Barbeque pits, basketball courts, and sheltered picnic areas
 - Accessible spaces, comfortable seating, and scope for privacy
- Experience of nature: Evidence supports the supplementary role of nature in improving health outcomes. By including meaningful and purposeful activities, potential for social contact and support in an outdoor setting would support better health outcomes for veterans.

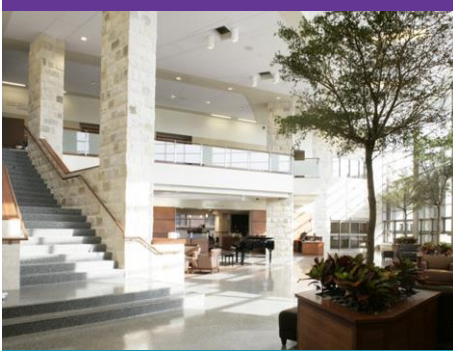
Limitations

The authors do not indicate their study to have any limitations. A limitation of this study is that the authors do not elaborate on the methodology followed for the literature review.

Design Implications

While designing outdoor spaces for veterans with PTSD, the following may be taken into consideration:

- Pathways may be designed so that there are no sharp turns or blind corners, and are away from plants with foliage and trunks that may obstruct vision.



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- Clear wayfinding cues may be placed along these pathways – these may include signage, maps, and landmarks.
- Recreational features like barbeque pits, basketball courts, and sheltered picnic areas
- Accessible spaces, comfortable seating, and scope for privacy
- While designing waiting rooms in facilities for veterans with PTSD, all of the following may be considered to afford the patients a varied choice of distraction:
 - Televisions and reading material
 - Views of nature
 - Access to comfortable outdoor areas

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