



Wolfson Institute of Population Health | Centre for Psychiatry and Mental Health
Summer School Environment and Health

“Links between the built environment and mental health”

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Learning objectives

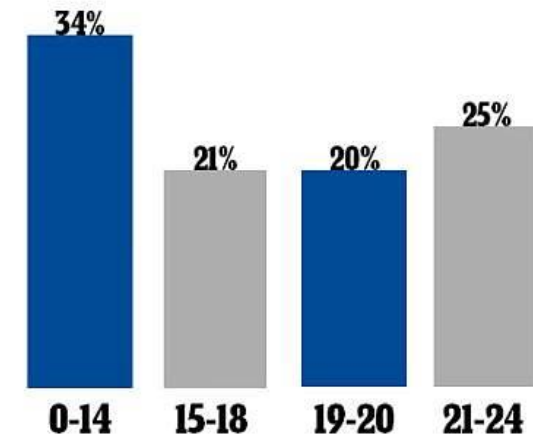
- † To understand the direct and indirect effects of the built environment on mental health
- † To become familiar with the concept of a therapeutic environment
- † To discuss the role of the built environment in hospitals

Introduction

- † People in developed countries spend 80-90% of their lives living indoors
- † From the year 1800 to 2000, humans have gone from 90 percent of people working outside to less than 20 percent
- † A quarter of Americans spend almost all day inside
- † During/post-COVID-19 pandemic lifestyle could be even more indoors



AMERICA INDOORS



HOURS PER DAY INDOORS

Let's discuss



† What are the benefits and disadvantages of living mostly indoors?

The effects of the built environment on mental health

- † The effects of the built environment on health can be direct, for example, by influencing environmental quality, or indirect by influencing behaviours that impact disease transmission and health.
- † Lack of robust research studies specific to the impact on mental health
- † Vulnerable groups: children, women, elderly, socially deprived populations, ethnic minorities

Direct effects of the built environment on mental health

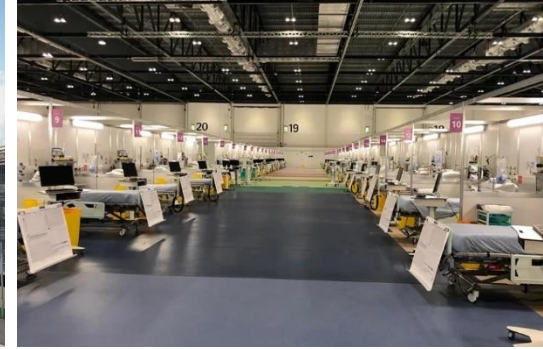
- † Poor-quality housing, work environments and public spaces increase psychological distress
- † Air pollutants heighten negative affect, and some toxins (e.g., lead, solvents) cause behavioural disturbances (e.g., self-regulatory ability, aggression).
- † Insufficient daylight is associated with increased depressive symptoms.
- † Individuals with dementia adjust better to small-scale, residential-like facilities that also have lower levels of stimulation.

Indirect effects of the built environment on mental health

- † By altering psychosocial processes with known mental health sequelae.
- † Personal control, socially supportive relationships, and restoration from stress and fatigue can be affected by properties of the built environment.
- † Design of psychiatric hospitals can affect staff-patient interactions, and potentially contribute to individual recovery from mental illness.

Hospital architecture

- † Costs and resources
- † Evidence-based hospital design
- † Psychiatric hospitals: challenging care environments





ELSEVIER

Contents lists available at [ScienceDirect](#)

European Psychiatry

journal homepage: <http://www.europsy-journal.com>



How to design psychiatric facilities to foster positive social interaction – A systematic review



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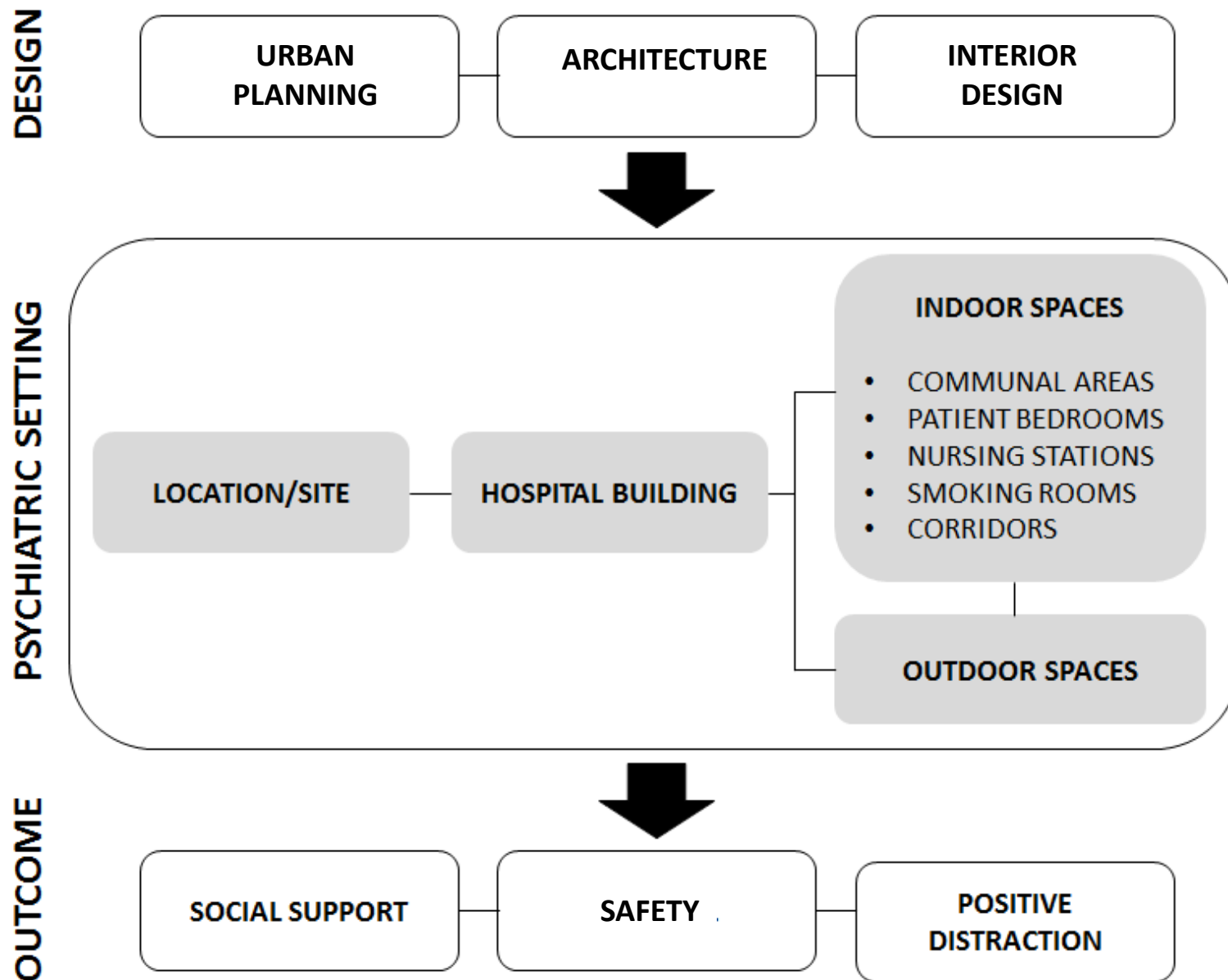
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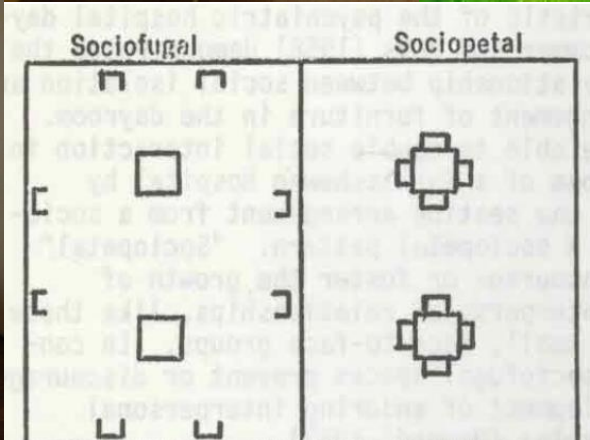
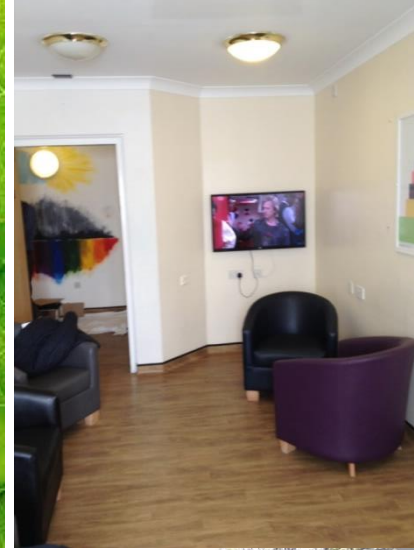
Review question:

What built-environment interventions facilitate social interactions between users of mental healthcare facilities?

Methodology:

- Six databases, search terms related to 'built environment', 'social interaction', 'mental health facility'
- Inclusion criteria (2)
- Final list of publication: N=43
- Type of studies: Experimental (N=25), Observational (N=18)
- Country: United States (N=20), UK (N=14)
- Published: 1968 – 2015
- Data analysis: Narrative synthesis approach





Results

† Evidence-based, pro-social design interventions

Let's discuss



† What is therapeutic environment?

Therapeutic environment

- † Originating from mental healthcare architecture, it has now spread across all types of environments
- † Early concepts: 'Healthcare architecture'; 'Patient centred design'; 'Salutogenic architecture'; 'Evidence-based architecture'
- † Hospital therapeutic environment implies that hospitals are clinically efficient, integrated within the community, accessible to patients and the public, and encouraging patient and staff well-being (Gesler et al., 2004)
- † More broadly, environment that enables safe movement and natural daylight to support healthier lifestyles, mentally and physically.

Psychological Medicine

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Original Article

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Impact of the hospital built environment on treatment satisfaction of psychiatric in-patients

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Hospital Environment Study

† **Aim:** To identify which elements of hospital built environment are associated with higher patient satisfaction with psychiatric in-patient care

† **Methodology:**

- 18 psychiatric hospitals
- All hospitals were assessed for general characteristics, aspects specific to psychiatry (patient safety, mixed/single-sex wards, smoking on/off wards), and quality of hospital environment.
- 2,130 interviewed patients - treatment satisfaction was assessed using the Client Assessment of Treatment Scale (CAT).
- Multi-level modelling

Results – two factors have the potential to increase treatment satisfaction:

- † Being hospitalised on a mixed-sex ward
- † Availability of rooms to meet family off wards



Let's discuss



- † What are the underlying mechanisms that could explain why being hospitalized in mixed-sex wards and having access to family rooms can increase patient satisfaction with care?

Discussion

- † The mixed sex wards include single-sex patient bedrooms and mixed/single sex communal areas. Single sex areas/wards were created to increase safety and protection of patients.
- † Both patient safety and treatment satisfaction need to be taken into consideration when making decisions about hospital design.
- † Patients value more natural environments that allow them to replicate contexts and social encounters from community life.
- † Adult mental health services tend to focus on the individual patient, yet 25–50% of all psychiatric in-patients have dependent children.
- † The international guidelines for mental health recommend that allocated space for families is provided off the wards to allow families, including minor age children, to visit patients whilst they are in hospital.

Summary

- † Poor-quality housing, work environments, and public spaces increase psychological distress.
- † Exposure to poor environmental conditions is not randomly distributed and tends to concentrate among the poor and ethnic minorities.
- † Hospital built environments have the potential to act as a therapeutic agent and reduce stress and promote mental health through an increased sense of control and safety, as well as support for positive social interactions.
- † More research is needed regarding the mental health implications of multiple environmental risk exposures.

Literature

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