Content

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Health Inequalities

- More likely to suffer significantly poorer health than the general population (Emerson, 2007)
- Experience a range of co-morbidities (Park et al., 2013)

Design

- The built environment can have an impact on physical and mental health (Hoisington et al., 2019)
- A relationship exists between wellbeing and architectural design (Liddicoat et al., 2020)

Design of healthcare settings

- Ulrich (1984) explored the impact of physical design and outcomes for patients in inpatient settings
- Recent studies have shown that design of hospitals and psychiatric facilities can improve outcomes and quality of life (Ulrich et al., 2018; Seppanen et al., 2018)
Why?

How?
Three phases:

- Context report
- Scoping review
- Design catalogue
Phase 1: Context report

Aim: To explore the context for supported accommodation in the UK and more specifically in Northern Ireland

Objectives:

1. Provide an overview of the Health and Social Care system in the UK and NI
2. Review policies/guidelines and recommendations relating to people with mental health problems and intellectual disabilities
3. Review guidelines for planning and building of supported housing with a focus on physical design
Findings

Key themes

Co-production

Focus on service users

Reconnect families and communities

Assistive technology
Design guidelines

• Lifetime Homes Standards
• Department for Communities Design Guide
• Autism Planning and Design Standards
• Autism ASPECTSS Design Index
• National Autistic Society Building Design Factors
• Living in the community – Housing Design for Adults with Autism
• A Guide for Assisted Living
Findings

Key design features

Adaptable features

Location

Home furnishings

Outdoor spaces

Layout
Phase 2: Scoping review

**Aim:** To review physical design of supported accommodation for people with intellectual disabilities, mental health problems and challenging behaviour

**Objectives:**
1. Examine the scope of the evidence in relation to physical design of supported accommodation
2. Identify physical design features of supported accommodation
3. Explore the impact of the physical design of supported accommodation on the health and wellbeing of service users and staff
<table>
<thead>
<tr>
<th>Author and Date</th>
<th>Country</th>
<th>Participants</th>
<th>Study Description</th>
<th>Main Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harkness et al., 2004</td>
<td>USA</td>
<td>670 individuals with chronic mental illness</td>
<td>Relationship between design features and outcomes</td>
<td>Low quality housing associated with 28% increase in community based mental health service costs</td>
</tr>
<tr>
<td>Johansson and Brunt, 2012</td>
<td>Sweden</td>
<td>55 supported accommodation residents</td>
<td>Assessing quality of physical environment features</td>
<td>Designated areas for different activities, light, colours, noise and temperature contribute to a high quality environment</td>
</tr>
<tr>
<td>Marcheschi et al., 2016</td>
<td>Sweden</td>
<td>29 people with severe mental illness</td>
<td>Investigating role of architectural features in sustaining interactional behaviour</td>
<td>Dining areas and outdoor environments of high quality facilities better supported social interactions</td>
</tr>
<tr>
<td>Wright and Kloos, 2007</td>
<td>USA</td>
<td>249 mental health consumers</td>
<td>Examining the effect of perceived housing environment on wellbeing</td>
<td>Better housing environments associated with better well being outcomes</td>
</tr>
<tr>
<td>Marcheschi et al., 2014</td>
<td>Sweden</td>
<td>72 residents with severe mental illness 117 staff</td>
<td>Investigating features of high and low quality supported accommodation</td>
<td>High quality facilities significantly more likely to offer better options for independent living</td>
</tr>
<tr>
<td>Marcheschi et al., 2015</td>
<td>Sweden</td>
<td>72 residents with severe mental illness</td>
<td>Investigating the effect of design on quality of life</td>
<td>Perceived physical and social environments accounted for 32% of variance in QOL</td>
</tr>
<tr>
<td>Bengtsson-Tops et al., 2014</td>
<td>Sweden</td>
<td>29 people with severe mental illness</td>
<td>User experiences of life in supported accommodation</td>
<td>Ownership over belongings, freedom and space to socialise were key themes</td>
</tr>
<tr>
<td>Piat et al., 2017</td>
<td>Canada</td>
<td>17 people with severe mental illness</td>
<td>Exploring how supported housing affects recovery</td>
<td>Homelike, amenities, accessibility, socialising with others all important features</td>
</tr>
</tbody>
</table>
Findings

Location

Social interaction

Common areas

Health and wellbeing

Private areas

Homelike environment

Outdoor spaces
Location

- Amenities
- Community accessibility
- Transportation
- Neighbourhood quality
Common areas

- Open and connected
- Natural light
- Leisure activities
- Soft furnishings
Private Spaces

- Autonomy
- Retreat
- Designated space
- Controlling own environment
Outdoor spaces

- Stimulating environment
- Gardens, trees and flowers
- Well maintained
- Furniture
Health and Wellbeing

High quality facilities

Perception of environment

Support
Social interaction

Outdoor spaces

Communal spaces

Furniture placement
Phase 3: Design catalogue

**Aim:** To produce an evidence based catalogue of key design features for people with mental health problems and intellectual disabilities

**Objectives:**

1. To collate physical design features identified in the context report and scoping review
# Phase 3: Design catalogue

<table>
<thead>
<tr>
<th>Design Feature</th>
<th>Do</th>
<th>Think about</th>
<th>Avoid</th>
</tr>
</thead>
</table>
| Planning       | • Involve service users in the planning stage and give them choice of where they live and who they live with  
• Place service users together with others with similar diagnoses, needs and routines  
• Provide car parking close to the dwelling for service users, visitors and staff  
• No steps at entrances  
• Communal stairs should not be steep and handrails should be provided  
• Windows should be at a height so that they can be opened by those with minimal reach  
• Windowsills should be at a height to allow a seated person to have a view of outside | • Ensure spaces are adaptable to change as the needs of a service user may change over time  
• Location – rural vs. urban locations for access to green spaces, community services  
• Ensure the building fits in with the style of the neighbourhood to increase community integration  
• Neighbourhood quality and amenities  
• Adaptable features that can be adjusted quickly without structural changes | • Locations where there are high volumes of traffic  
• Locations with poor transportation links and lack of access to community services  
• Neighbourhoods with derelict buildings  
• Having too many service users sharing a residence |
Key messages

• Architecture and design has the potential to impact upon outcomes for our service users
• Collaboration between architects, planners, builders and housing providers is crucial
• Co-production is key
• Autonomy, common areas, outdoor spaces, location, community accessibility key themes
• Lack of robust evidence suggests further research required
Future research

- Focus groups/ interviews with service users to identify what they consider to be important design features
- Further development of a design catalogue which caters for the holistic needs of service users
- Co-production of a physical design intervention involving service users and staff through an iterative process
- Capturing the planning, designing and building process within Praxis
Thank you

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