

Rethinking inner city psychiatric building provision

Evangelia Chryssikou¹, Eleftheria Savvopoulou¹, Peter McLennan¹, Paul Higgs², Malcolm Mc Frederick³

¹ The Bartlett Real Estate Institute, University College London, UK

² Division of Psychiatry, University College London, UK

³ Camden & Islington NHS Foundation Trust, UK

ABSTRACT Outpatient services and services linked closer to primary care provide key components of early detection and continuous support. So, how do we shift the system from a configuration that operates backwards to a preventive and early intervention one? And how this could influence the buildings?

This project describes the research conducted to inform the pre-brief consultation initiated by an NHS Mental Health Trust at a stage of building asset redevelopment. It aimed at gathering the state of the art, including best practice and innovative approaches on psychiatric buildings to inform an extensive multi-stakeholder and patient inclusive, co-design process that would promote early intervention and community integration.

Research followed a qualitative methodology gathering best practice in community mental health globally. Literature review focused on healthcare built environments. Best practice case studies were analysed. Selected International experts were interviewed.

Data -both visual and scientific- were evaluated using the SCP model, a tool specifically developed for the evaluation of psychiatric buildings.

Findings were organised under 32 key themes, further digested in two sections - design learnings and visual support. Then, these informed a matrix of design recommendations for wards and community hubs to support user/stakeholder consultations.

By treating design and place-making as a therapeutic tool we could challenge the way people consider psychiatric buildings. Creating the means to disrupt a normally segregated architectural dialogue was essential.

Keywords: healthcare architecture, mental health buildings, psychiatric design, outpatient services

Introduction

Mental Healthcare presents a complexity transferred to all its' individual and interconnected components. For start, it is a service environment in which all actors and recipients are highly interconnected so that the action of one can change the context of the other, similar to any healthcare environment as described by Plesk (2006). As in healthcare, the technical system is interrelated to the social system (Hicks et al. 2015). Part of this technical system is its' built environment. It is important to consider the design of healthcare buildings simultaneously with that of services, as poor connections between these two may lead to issues with service delivery (Caixeta 2013).

With mental illness being on the rise (WHO 2001), removing stigma surrounding mental illness would facilitate earlier diagnosis and therefore, more effective treatment for those who need it (Shrivastava et al. 2013). Especially, in a period where people have also to deal with the direct and indirect psychological and social effects of the COVID-19 pandemic affecting their mental health in the present and in the future (Holmes et al. 2020). More integrated facilities, closer to what people perceive as accessible and inviting (Chrysikou, 2014) might support the target of asking for help earlier. Buildings with those characteristics might also help people remain engaged with services if required.

Community mental health facilities in particular should be in position to optimize the health and well-being of community members. They should be in position to help people deal with the many anticipated consequences of quarantine, social distancing and physical distancing measures governments around the world had to take so as to deal with COVID pandemic. Those have been anxiety, depression, self-harm, domestic abuse, financial stress (United Nations, 2020). A significant way to enable that is their integration to the health and social care system as well as to the community they serve. By locating health and social care services in the same physical space, users and their carers can easily access related supports and forge linkages among different service providers, minimizing both time and transportation costs (Lum and Ying 2014). Shifting integrated mental health care to the community is unequivocally the most sensible economic decision, as community mental health services are up to five times less expensive than hospital-based care (WHO 2008; Goering, 2004). WHO recommended that Europe should offer effective care in community by implementing specialist community-based services, accessible 24 hours a day, 7 days a week, with mobile multidisciplinary staff to care for people in need of mental health care and effective partnership with primary care services (WHO, 2005).

To achieve this integration, day care and outpatient services provide key components of a comprehensive support service for mentally ill and older people, along with their carers and families (Thornicroft et al. 2016). The need of provision of care on a daily basis for the mentally ill, the underserved populations, people with co-morbid long-term conditions and people with physical disabilities who live in their own homes, is well established.

The built environment of these facilities in the community plays an important role in the user's wellbeing and the best possible delivery of services. Studies carried out mainly by psychologists show that building features have psychological effects on users (Francis et al., 1999). As Scher (1992) suggests, environments can be assessed as having positive attributes to well-being by promoting healing in patients, enhance the performance of staff and promote caring behavior in carers. Recent work by R. Ulrich (2018) confirms that. What

could architecture do to facilitate a shift from institutional to inspiring healthcare environments in the community? With this academic consultancy project the research team aimed to set some light on how to improve, with practical steps, the quality of the psychiatric facilities in the community along with the neighbourhoods that surround them. We were most interested in a) best practice examples of community mental health facilities globally that aimed to challenge the custodial image of psychiatric facilities and b) the state of the art on the subject. Looking at these two different streams we would be able to cluster built environment characteristics that new hubs in the community should consider so as to facilitate the best possible outcome for both service users and staff (Chrysikou et al. 2019).

Methodology

Research followed a qualitative methodology gathering data on best practice in community mental health facilities. First, an extended literature review was conducted from November 2018 to February 2019 in relation to healthcare architecture focusing on the built environment of community mental health facilities and the services they provide. It involved grey literature, sources such as UCL Library Services, PubMed, Academia.edu, ResearchGate, Emerald Insight, SAGE Journals, specific journals, i.e., Health Environment Research & Design Journal, BJPSYCH International, World Health Design etc., the relevant NHS Health Building Notes and books. The following research keywords were searched: mental health clinics, mental health hubs, community-based mental healthcare, psychiatric casualty clinics, clubhouses, behavioural health, warming centres, mental health centres, rural health clubs, high end mental health facilities, outpatient psychiatric clinics, day centres, treatment centres.

Furthermore, best practice case studies regarding community mental health facilities globally were selected. Data available online was gathered. Then, these were classified under the following categories: services, primary care integration, location, accessibility, entrance, façade, outdoor areas, layout, environment/therapeutic milieu, spatial characteristics, navigation, window view, staff areas, rooms for families, therapy rooms, reception design, storage, design for wellbeing, lighting, art, adjustable heating, air quality/energy-water saving, sound and noise levels, privacy, safety, furniture, colours, amenities to visitors/caters, technology, engage different groups, design for adolescents, design for older people. Forty four case studies from fifteen countries were selected. More specifically, examples from the following countries were further studied: Norway, France, Spain, Italy, Slovenia, Denmark, Sweden, Germany, Belgium, Netherlands, UK, Canada, Australia, the US and Japan. Additionally, interviews with five international experts from the field of psychiatry or medical architecture, from both Europe and the US, have been conducted in parallel, providing valuable data from their research activities and personal experience in operating at their local area.

Data collected was further evaluated using the SCP model (Chrysikou 2014), a tool specifically developed for the classification of the psychiatric built environment (Figure 1). The tool is used for the evaluation of mental health facilities, identifying the relation between policy, care-regime and patient-focused environment. The model was named after the acronyms of three variables: Safety and Security (S), Competence (C) and finally Personalization and Choice (P). It is a three-dimensional model and each of these variables comprises one dimension of a cubic problem space occupied by the three axes (x, y and z).

The SCP model can help define enabling environments for what staff and service users perceive as best practice and suitable for their environments of care (Table 1).

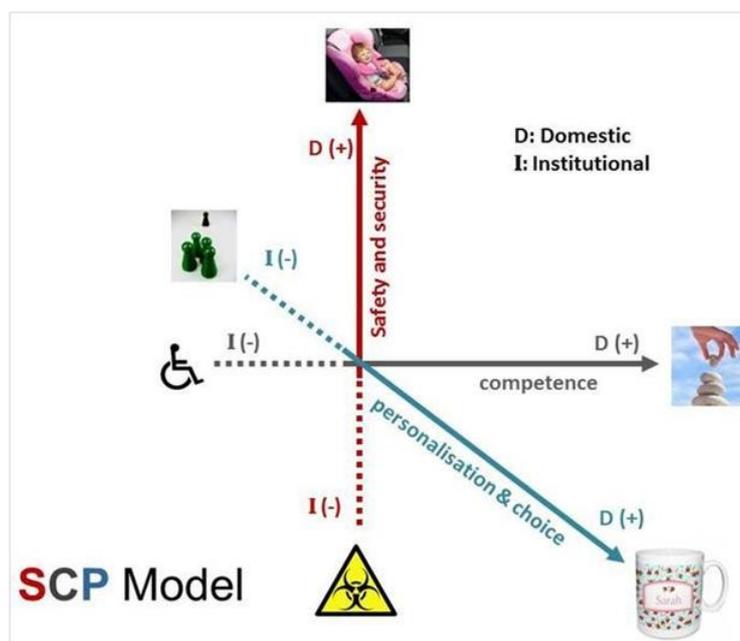


Figure 1: [The SCP Model as a 3d space where psychiatric facilities can be placed according to their individual characteristics in domestic (+) vs institutional (-) scale]

Table 1. Methodology

Research method	Description
Literature review	Relation to healthcare architecture with focus on the built environment of community mental health facilities, delivery and services they provide
Desktop analysis	Selection of best practice case studies regarding community mental health facilities globally
Interviews	interviews with international experts from the field of psychiatry and medical architecture, from Europe and USA
SCP model	Evaluation of visual and scientific data using the SCP model, a tool developed for the evaluation of mental health facilities, identifying the relation between policy, care-regime and patient-focused environment

Findings

Findings in relation to the built environment of mental health facilities and how they could become inspiring reference points within the community they serve, were selected and organized under 32 key themes. Each key theme was organized in two sections: i) the first

comprised a set of recommendations deriving mainly from scientific sources and ii) the second presented relevant case studies accompanied by photos showing how these recommendations have been implemented. Each recommendation has been further analysed using the SCP model, by including at the end the acronyms “SCP” and by highlighting in bold the most dominant parameter among the three for each one.

More specifically, research conducted highlighted a variety of different services that could be adopted and would be beneficial for users. It is important to treat users holistically by providing:

- options for therapy- such as individual or group psychosocial therapies, recreation therapies (art therapy, music therapy, etc.),
- areas for physical activity (especially for units that do not have access to secure outdoor areas as exercise has positive effects on people’s well-being),
- outreach spaces such as a shop or café, where users could both work, run business but also relax and sell artwork or other craft objects they are doing at occupational therapy sessions (Figure 2).



Figure 2: [Skrbovinca Care gift shop, Ljubljana, Slovenia: a joint work of the City of Ljubljana and the four Ljubljana Workers Protection Centers. A place to socialize, exhibit, and also sell creative achievements of adult people with special needs or other overlooked social groups]

As already stated, integrating mental health care to primary care should be considered as the first step forward. Data showed that many countries, such as Norway, UK, Scotland, France, USA etc. have already taken action to that direction. The Mental Health Commission of Canada (MHCC) (2017) highlighted the priority for community mental health services to be available at the primary and community care levels, as this is where most people with mental health problems prefer to access services. In Italy in 2009, the Emilia-Romagna Mental Health Action Plan 2009-2011 was approved by council, basically focusing on the integration of health and social services (Servizio Sanitario Regionale, 2011).

Another finding involved built environment recommendations related to location and accessibility. Mental health facilities are, in most cases, hidden and difficult to access (Chrysiou et al. 2017). Research shown that ease of access for families, carers and staff, including availability and access to public/private transport and parking, is key consideration. Access ramps and space to enable wheelchair users to move within the building are necessary. Site location should also be taken into account: points such as proximity to the

catchment area the facility serves (as close as possible to the users' home), proximity to regular public transport, even to other health or community services, should be taken into consideration.

Exterior building characteristics, such as entrance, façade and outdoor areas were also included. Findings showed the importance of the first impression. Façade should be attractive and clean, marking the entrance with a piece of art or a canopy for example, so as to promote wayfinding but also to make users feel more welcomed and blended in the community. Safe outdoor areas with accessible green spaces offering a place for socialization should also be incorporated.

Data on layout characteristics were also gathered. The importance of therapeutic environment – one that positively contributes to the healing process, pays attention to users, staff and visitors, provides safe gender design and prevents violence- was highlighted. Spatial characteristics that should be taken into consideration during the design process were noted. Research showed the positive impact of larger, open activity areas instead of small, enclosed day rooms. Treatment rooms shouldn't feature a long and narrow corridor without daylight but a place for users to hang out and socialize. Spaces for social interaction is best to vary in size and activity taking place, so as to provide more choices in relation to users' needs. Findings also showed that simple navigation signage, properly designed and positioned, could support the feeling of security to users. Landmarks within buildings could serve as wayfinding elements, providing positive distractions and autonomy that reduce stress levels. The positive effect of window view for all users was highlighted.

The interior characteristics of the hubs play also an important role in making them more appealing to users. Findings showed the importance of designing staff areas that are genuinely staff-focused so as to create a positive working environment (with immediate effect on better treatment outcomes): windowed work places, open nursing stations for enabling better observation, private staff break rooms - both indoor and outdoor- located in close proximity to medical areas, adequate space to secure personal possessions. Rooms for families are suggested, especially in cases where adolescents are involved. Findings showed that smaller, intimate areas for families, instead of larger ones, are preferred. The design of more effective therapy rooms was also pointed out: better to be built in a multi-purpose way, to provide flexibility for more activities in the same area.

Attention to detail could also play an important role in improving the built environment of mental health facilities to make them more inspiring. With light having a profound effect on human biology, lighting – both natural and artificial- along with views of nature are two of the most significant design factors that should be considered during the design process. Findings displayed that suitable art selection for mental health settings can positively affect the physiological and psychological health of users and staff. The importance of effective air quality control measures and ventilation systems in mental health facilities was also highlighted, especially in crowded spaces or at spaces with strong odors. Keeping low noise levels is also important as it helps in stress reduction. Additionally, data showed that furniture should be safe and durable but at the same time comfortable and domestic in style as possible, arranged in a way that support multiple levels of interaction. Colours and textures may also help differentiate spaces and help in wayfinding. The role of technology was also studied, from WI FI connection and area with computers, to the use of suitable VR/AR applications in mental health hubs.

Finally, data selected showed the importance of engaging different groups of people during the design process. A community mental health hub should be designed with and for the community, taking into account the various groups that use them and their needs, as different groups with different ages (older people, adolescents etc.) interact in fundamentally different ways.

All the above data were analysed and combined, generating a matrix of recommendations concerning the design of community mental health hubs and wards. The researchers classified them by giving to each recommendation either an S (for strong) or R (for recommended) or O (for optional).

Conclusions

Findings of this research highlighted ways to improve the quality of the psychiatric built environment along with the neighbourhoods that surround them, so that users are drawn to them by hope and not despair. In most cases, psychiatric buildings tend to go unnoticed or appear hidden, demonstrating clear signs of vandalism and located far from tube stations, adding to the time staff, users and their families need to access them (Chrysikou et al. 2017). Through the matrix of recommendations for the design of community mental health facilities, the researchers generated a valuable tool for everyone involved in the planning, design and management of psychiatric units - from Healthcare & Estates to architects and stakeholders involved, including service users - that could have a greater impact and help long term minimise the community levels of stigma and discrimination surrounding these types of buildings. By treating design and place-making as a therapeutic tool we could challenge the way people consider psychiatric buildings and we could create the means to disrupt a normally segregated architectural dialogue.

Finally, we need to think of environments in their detail in a complete manner. Sometimes we do not have the evidence base to address all the pixels of the image and come up with a 100% evidence base solution. Sometimes the pixels might be too few casting the final picture as too fragmented. In the meantime, we need to look at the existing evidence and best practice through a more theory based solution, utilising all available tools from evidence to inspirational and occasionally contradictory examples and people's experience and practice-derived expertise. This project was foremost an exercise on reaching to and synthesising all that. The final product was a report that was used to facilitate, enrich and provide food for thought one of the most important steps of a healthcare planning project, the staff and patient consultation.

References

- Caixeta, M.C.B.F. 2013. "A conceptual model for the design process of interventions in healthcare buildings: a method to improve design". *Architectural Engineering and Design Management* 9: 95-109
- Chrysikou, E. 2014. *Architecture for psychiatric environments and therapeutic spaces*. Amsterdam: IOS Press. ISBN 978-1-61499-459-6

- Chrysikou, E. 2014. "The SCP model: A three dimensional methodology for understanding, profiling and evaluating mental healthcare architecture". In Proceedings of the 2nd European Conference on Design, edited by Alaster Yoxall und Kirsty Christer, 66-76. Sheffield: Sheffield Hallam University. ISBN: 978-1-84387-373-0
- Chrysikou, E. 2017. The social invisibility of mental health facilities. London: UCL
- Chrysikou, E., Savvopoulou, E. McLennan, P., Higgs, P. 2019. "Implementing research and best practice for the development of mental health hubs in the community". Report delivered to Camden and Islington NHS Foundation Trust:
<https://www.candi.nhs.uk/sites/default/files/Documents/Implementing%20Research%20and%20Best%20Practice%20for%20the%20Development%20of%20Mental%20Health%20Hubs%20in%20the%20Community.pdf>
- Goering, P. 2004. Making a difference: Ontario's community mental health evaluation initiative. Toronto, ON: Canadian Mental Health Association
- Hicks, C., McGovern, T., Prior, G., Smith, I. 2015. "Applying lean principles to the design of healthcare facilities". International Journal of Production Economics 170(Part B): 677-686
- Holmes, E., O' Connor, R., Perry H V.,Bullmore, E. 2020. "Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science". Lancet Psychiatry 2020 (7): 547-60
- Francis, S., Glanville, R., Noble, A., Scher P. 1999. 50 years of ideas in healthcare buildings. London: The Nutfield Trust
- Lum, J., Ying, A. 2014. Community Hubs: Right care, right place, right time. Canada: Canadian research network for care in the community
- Mental Health Commission of Canada. 2017. "Strengthening the case for investing in Canada's mental investing in Canada's mental health system: Economic considerations". Accessed 3 April 2020. http://www.mentalhealthcommission.ca/sites/default/files/2017_03/case_for_investment_eng.pdf
- Pisek, P. 2006. An organisation is not a machine! Principles for managing complex adaptive systems, Materials prepared for leadership for health improvement programme, York
- Servizio Sanitario Regionale. 2012. The Emilia-Romagna Regional Health Service and the new welfare system. Bologna: Regione Emilia-Romagna
- Shrivastava, A., Yves Bureau, Y., Rewari, N., Johnston, M. 2013. "Clinical risk of stigma and discrimination of mental illnesses: Need for objective assessment and quantification". Indian Journal of Psychiatry 55(2): 178-182.
- Scher, P. 1992. Environmental Design Quality in Healthcare. Manchester: Arts for Health
- Thornicroft, G., Deb, T., Henderson, C. 2016. "Community mental health care worldwide: current status and further developments". World Psychiatry (15):276-286
- Ulrich, R., Bogren, L., Gardiner, S., Lundin S. 2018. "Psychiatric ward design can reduce aggressive behaviour". Journal of Environmental Psychology 57 (2018): 53-66
- United Nations. 2020. Policy Brief: COVID-19 and the need for action on mental health. https://www.un.org/sites/un2.un.org/files/un_policy_brief-covid_and_mental_health_final.pdf

WHO. 2001. The World health report: 2001: Mental health: new understanding, new hope. Geneva: The World Health Organization. Accessed 17 June 2020.

WHO. 2005. Mental Health Declaration for Europe: Facing the Challenges, Building Solutions. WHO European Ministerial Conference on Mental Health, Helsinki, Finland, 12–15 January 2005

WHO. 2008. Integrating mental health into primary care: a global perspective. Geneva: World Health Organisation