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ORIGINAL ARTICLE

Patients' experiences of place and space after a relocation to evidence-based designed forensic psychiatric hospitals

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ABSTRACT: *Forensic hospitals provide care for incarcerated patients who have committed a crime under the influence of serious mental illness. The care and (re)habilitation of the target group require highly competent staff and treatment strategies as well as purpose-built facilities that promote successful recovery. The aim of this study was to examine patients' experiences of place and space in new, purpose-built, evidence-based designed forensic psychiatric facilities in terms of supporting everydayness. A qualitative methodology was chosen. In total, 19 patients agreed to participate. Data were collected through photovoice (a combination of photographs and interviews) at three forensic hospitals, according to an evidence-based design and the concept of person-centred care in Sweden. The data were analysed through thematic content analysis. Four themes emerged from the data, revealing the patients' experiences of the new buildings: (i) having a private place, (ii) upholding one's sense of self, (iii) feelings of comfort and harmony, and (iv) remaining connected to one's life. The findings reveal that purpose-built environments can support everyday living and well-being and can create comfort. This is considered highly therapeutic by the patients. In conclusion, the findings of this study are of imperative importance in the design of health-promoting forensic hospitals.*

KEY WORDS: *built environment, evidence-based facility design, forensic psychiatric nursing, patients, qualitative research, rooms.*

INTRODUCTION

This study is part of a larger project that was conducted in western Sweden between 2010 and 2016. The project aimed to explore the effects and experiences of relocating forensic psychiatry patients and staff from old, traditionally designed buildings to new, purpose-built ones, guided by the concept of evidence-based design (EBD), and a person-centred philosophy (Ekman *et al.* 2011) in three different regions in Sweden (Alexiou *et al.* 2016; Alexiou *et al.* 2018; Degl'Innocenti *et al.* 2020; Wijk *et al.* 2019).

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The concept of EBD refers to physical features that have a positive impact on care outcomes, such as length of stay and an increased sense of well-being among the patients. Physical features that have demonstrated positive effects include ventilation, windows, views of nature, and design that promotes orientation and distraction, including comfortable furnishings (Lawson 2010; Ulrich *et al*. 2008). Moreover, other important physical features in psychiatric settings are stress-reducing attributes that, for example, can reduce the risk of aggressive behaviour and contribute to well-being. Examples of such features are single-patient rooms, noise-reducing designs, and accessible gardens (Karlin & Zeiss 2006; Ulrich *et al*. 2018). The design of the new facilities was founded on a person-centred philosophy in terms of acknowledging the person, that is seeing the person behind the illness/crime (Ekman *et al*. 2011), and supporting a person-centred atmosphere on the wards (Böhme 1993). A person-centred atmosphere is defined as sensing an atmosphere of ease based on interactions between the physical space and human encounters, as well as people's expectations of care. Such a person-centred atmosphere is believed to convey feelings of safety and calmness (Edvardsson *et al*. 2005). The design phase was preceded by extensive collaboration between the architects, management, and healthcare staff to ensure that decisions concerning the design aspects were grounded in science- and experience-based, systematically provided data (Ulrich *et al*. 2004). In this paper, we present the findings of a qualitative study of patients' experiences of place and space in purpose-built forensic settings after relocation. Relocation is defined as an inter-institutional movement from one institution to another, for example transfers to and from hospitals, psychiatric facilities, and residential care facilities (Castle 2001). The concepts of 'place and space' are intimately linked; place refers to a location where life manifests itself, whereas space concerns the quality of the place and is a more abstract term, that is *how a place is lived in*. Space is also freedom and the openness that is experienced in a place (Cresswell 2015).

BACKGROUND

The concepts of place and space play a vital role in care provision, health, and well-being and thus impact the quality of care (Roxberg *et al*. 2020). Andrews (2003) locates nursing in a geographical perspective, claiming that nursing care has a spatial dimension that cannot be foreseen as it has a moral significance and impacts the quality of care. Malone (2003) claims that the spatial structure of the place and space of the care is decisive in shaping the nurse-patient relationship and based on proximity that is moral, narrative, and physical. In addition, from a geographical perspective, Liaschenko (1994, 1997) expresses that the condition and quality of the care environment (e.g. weather, vegetation, and spatial dimensions) should be considered in light of the different values and kinds of work being performed in different institutions.

Moving from the geographical perspective towards the specific field of psychiatry, the geography of mental health was established as a response to a lack of recognition of the ontology of place, that is human situatedness, social relations and the *meaning* of place and space for individuals (Philo 2005). The geography of mental health proposes an integration of the biomedical perspective and the socio-environmental prerequisites of mental health in understanding the complexity and significance of place and space, not least because of its importance in the context of forensic psychiatry. In addition, the ideological shift in political landscapes in societies has led to spatial implications for mental healthcare provision. Forensic psychiatric units depart from the 'post asylum' landscape of mental health and encompass many qualities linked to 'total institution' (Goffman 1973) and carceral spaces (Moran 2015).

The average length of stay in a forensic psychiatric facility is five years, during which a patient becomes rehabilitated and able to live an ordinary life in society as a result of the care given (Swedish National Forensic Psychiatric Quality Register 2019). In this sense, an environment that mirrors 'normal life' as closely as possible seems more relevant than traditional hospital settings designed for short recoveries. A similar reflection is put forward by Malone (2003), who highlights the fact that we live our lives in a social context, forming our identities, yet we are displaced in our most vulnerable moments, that is during illness when we are sent to live in unfamiliar hospital environments.

In Sweden, a person who commits a crime under the influence of severe mental illness or a psychiatric disorder is sentenced to care instead of prison under the Forensic Psychiatric Care Act (Swedish Code of Statutes & SFS 1991:1129). In 2018, 1800 people (80% men, 20% women) were treated in forensic psychiatric clinics and hospitals (25 low-, medium-, and high-security facilities) in Sweden (Swedish National Board of Welfare 2019). The major aim of forensic psychiatric care is to prevent new crimes from being committed due to mental illness and eliminate the risk of violence

by the patient. Moreover, forensic psychiatric care aims to treat and support patients' health and (re)habilitation/recovery to enable them to leave the institution and return to normal life in society. Being cared for in a forensic psychiatric setting has a tremendous impact on patients' lives, as it strongly limits patients' freedom with no time limit (SFS 1991:1129).

The body of literature concerning patients' perspectives in forensic psychiatric settings presents a challenging picture. Everyday life is characterized by limited access to daily activities and a struggle to 'kill time' (Farnworth *et al*. 2004; O'Connell *et al*. 2010), aggression related to boredom (Meehan *et al*. 2006), a lack of privacy (Koller & Hantikainen 2002), and a lack of a meaningful everyday life, featuring longing, losses, and struggles against resignation (Coffey 2006; Hörberg *et al*. 2012).

Meanwhile, Tapp *et al*. (2013) and McKeown *et al*. (2016) offer another view: recovery is possible in a restrictive environment, such as a forensic psychiatric setting. Tapp *et al*. (2013) argue that being temporarily relieved from responsibilities, learning from others, (re) habilitation alliances and a safe and secure environment accompanied by interventions and support are aspects that patients experience as meaningful. McKeown *et al*. (2016) showed that the trajectory of recovery is not only a personal responsibility but also a matter of how care is structured and delivered. For example, offering meaningful occupations and establishing trust relationships, as well as taking into account patients' life histories, were shown to be essential in shaping present and future goals.

In addition, Reavey *et al*. (2019) explored how the environment of a purpose-built, medium-security forensic psychiatric unit contributes to shaping the process of recovery linked to the concept of 'life-space'. In purpose-built settings, life-space is compressed or expanded depending on the interplay between the staff and patients, as well as the design of the environment in terms of access or having control. For example, life-space is compressed when patients experience that the staff do not take any notice of them despite physical closeness, fluid boundaries, and a lack of privacy, whereas planning and securing an individualized recovery plan and everyday updates constitute an expansion of life-space. A study by Andes and Shatell (2006) in an acute psychiatric inpatient unit proposes that the physical barriers in the environment have a negative impact on nurse-patient relationships, on the time spent on therapeutic work and, subsequently, on the quality of care given.

This background raises the question of whether an EBD physical environment can facilitate patients' everyday lives in forensic psychiatric settings that are geared towards recovery. Literature on the use of EBD in response to the growing demand for new forensic psychiatric hospitals is scarce (McLaughlan *et al*. 2020). The aim of the present study is, therefore, to examine patients' experiences of place and space in purpose-built, EBD forensic psychiatric facilities that aim to support everydayness. Our research questions are as follows: *Can purpose-built environments and a person-centred philosophy be mirrored in patients' experiences of the environment and care after relocation*? *How do patients experience the new buildings in their everyday living?*

METHODS

A qualitative approach was chosen to address the phenomenon of the study, that is patients' experiences of place and space in purpose-built EBD forensic psychiatric units in terms of everydayness. Data were collected through photovoice, that is photographs taken by the participants combined with research interviews (Wang & Burris 1997). Photovoice is often employed for interventional purposes and aims to empower marginalized people. The theoretical foundation of photovoice is based on Freirean pedagogy, critical consensuses and feminism and photo-documentation (Wang & Burris 1997). The choice of photovoice as the methodology was primarily based on the need to secure validity and adhere to the phenomenon of the study, that is the place and space, to facilitate patients' speech. Photovoice has previously been employed in studies examining the meaning of place and space in carceral settings, for example forensic psychiatric care (Authors, 2018) and special residential youth homes (James & Olausson 2018).

Setting

Patients from three purpose-built, EBD forensic psychiatric hospitals in Sweden were interviewed (one unit at each hospital). The EBD physical features implemented comprised, among others, single-patient rooms with a private bathroom, access to gardens, windows with views of nature and a noise reduction design to create a quiet environment. Furthermore, supportive features were integrated into the physical environment, such as appropriate access to equipment in terms of job training and aerobic training, artistic decoration

and sensory stimulation, each of which may increase the patients' perceptions of the unit having a person-centred atmosphere. These facilities were similarly configured but situated in different geographical locations. One hospital was located on the outskirts of a large city and was a high-security establishment (A); two were located in rural areas and were low- and medium-security hospitals (B and C, respectively). The new facilities provided single-patient rooms with private bathrooms. The colour of the rooms varied but was designed to counteract the institutional impression, facilitate orientation and reduce the spatial complexity by accentuating relevant areas and giving different characteristics to parts that needed to be considered and interpreted differently. The lighting was adapted to the patients' needs. The furniture and textiles were made of natural materials, such as wood and wool. Other important features were improved access to outdoor spaces for activities (activity centres), better views of the garden and nature, the avoidance of irrelevant noise to promote a calm atmosphere and sensory stimulation offered through viewable artwork. Hospital C was a low-security facility that also gave patients access to computers, phones, and the internet.

Participants

Purposeful sampling was used to select participants (Patton 2015) in order to achieve variation in the patients' age, gender, diagnosis, and time in forensic care (see Table 1). All the participants were admitted to the hospital according to the Forensic Psychiatric Care Act (SFS 1991:1129), but some patients had more severe symptoms and were, therefore, not invited to participate in the study. Therefore, staff members aided in selecting which patients were the most appropriate to approach. Altogether, 19 patients agreed to participate: 5 in hospital A, 7 in hospital B, and 7 in hospital C. The total number of patients on the 3 wards at the time of the interviews was 63. Based on a staff decision, eight were not approached due to either their health, them being on leave or their inability to speak Swedish. The participants invited to participate in the study were asked to take photographs of objects and other important aspects of their rooms.

TABLE 1 *Overview of the participant characteristics*

Characteristic	
Age range	24–55
Gender	16 men, 3 women (n = 19)
Length of stay in forensic psychiatric care	1–17 years
Main diagnosis	N = 19
Schizophrenia, schizotypal, and delusional disorders	10
Mood disorders	4
Adult personality and behavioural disorders	3
Mental and behavioural disorders due to psychoactive substance use	1
Psychological development disorders	1

Procedure

After receiving formal consent from the hospitals, staff members in the actual units were informed of the purpose and procedures of the study. In the next step, all the patients in the selected units were informed about the study verbally and in writing. After accepting the invitation, patients signed a written consent form. Before the interview, each patient was given a camera and a written note saying, 'Please, take photographs of 3–4 objects in your room that are important to you in a positive or negative sense'. The choice of inviting patients to photograph their own rooms was made for security reasons and to avoid the risk of exposing fellow patients in the units. Moreover, it was related to other ongoing studies in the project (published elsewhere). These photographs were then printed in colour and used during the interviews with the patients to help narrate their thoughts and feelings. The interviews were open-ended and completed with follow-up questions. The opening question was as follows: 'Can you please tell me what you have taken a photo of in your room and why it is important to you?' This was succeeded by follow-up questions, such as 'What is in this photo?' and 'What does it mean to you?'

Data analysis

The data were analysed using thematic analysis, as described by Braun and Clarke (2006). The analysis identified and analysed thematic meanings and patterns in the data and was performed in several steps. The focus of the analysis was what the patients' experiences of the new buildings were, what was being said and how. First, the interview text was read repeatedly in an active way with a critical attitude by the research group, in search of meanings, possible patterns, and themes. Second, the researchers agreed on the main content of the photographs and on what the informants focused on during the interviews (Table 2). Third, meaning units containing relevant

information were identified in the text. Meaning units are small parts of the text containing relevant information about the phenomenon of the study. Fourth, these meaning units were related to one another and coded. Fifth, the meaning units and codes were reflected upon in order to identify the underlying meanings through critical questions, such as 'What does this mean?' and 'What is the underlying meaning of this?' Finally, the meanings were linked and compared with one another, and a number of overall themes were identified. These themes and their relevance were discussed several times within the research group before the final themes were established. In this last step, the core meaning of each theme was identified. The significance of these themes, that is the meanings and implications, was again critically reflected on and discussed by the research team before the final findings were described.

Ethical considerations

Conducting research in the context of involuntary care and incarceration requires sensitivity and constant reflection on the vulnerable positions of the patients. The Helsinki Declaration (World Medical Association & WMA 2013) guided the entire study process. The ethical principles of respect for people's autonomy, beneficence, justice and doing no harm were secured by providing oral and written information and stressing voluntariness and the right to withdraw from the study at any time without any consequences for one's care or treatment. Participants were given time to consider the invitation, and informed consent was obtained prior to the interviews.

Patients' rooms are one of the few places where they can obtain privacy while in compulsory care. In consideration of this and for other security reasons, the interviews were held outside the patients' rooms in a neutral space close to the rooms in question. Due to security reasons and respect for patients' integrity, none of the photographs taken by the patients are presented in this study. In addition, the data were coded, and any information that would reveal the patients' identities was excluded. The study was approved by the Regional Committee of Ethics in Gothenburg (Id: Dnr 671-10).

TABLE 2 *Main focus in the photos and examples of meanings*

Focus of the photos	Example of meanings
Bed	A positive place, glad to have a bed, able to relax, recovering, pulling back and letting go. Good quality of the bed contributes to wide use and the feeling of home. The bed gives a sense of security
Window	Important to take part in the outside world. Shut out the world outside and be in one's thoughts, shield oneself, calm down, relax, own your corner, bring feelings of home. Positive to see nature and activity outside the window. Reminder of staying calm and safe in the outdoors. Important to see the outside world, to see far, to see the sky. Harmonic location. Important to have daylight and nice views
Computers and TV	The most important thing in the room, entertainment, pastimes, contact with the outside world, socializing with inmates, a feeling of normality, staying updated, shopping, having company at all hours
Shelves and desk/Wardrobe and closet	Enables order. Ability to keep things in a proper manner. Appreciate being able to care for one's own clothes. Storage provides the opportunity for privacy. Storage is very important. Humiliating not being able to hang one's own clothes.
Personal items and clothes	Increased feelings of home associated with one's own things, personal items and music provide relaxation and are a reminder of positive memories, break up the boredom and help you to cope. Own clothes reflect one's personality, identity, and personal expression. You consider your own stuff. Personal items strengthen identity and give a feeling of being a person. Photos of children and family symbolize meaning something to somebody, being included in a context. A lack of personal items entails a sense of institution and depersonalization. Restrictions on personal items are bad
Bathroom	Nice to have your own toilet – terrible to share. Various thoughtful features give a feeling of luxury. Easy cleaning means independence. Bad that the water runs out – gives an institutional sense. Own toilet is worth gold, hotel feel, my own order, normality, private bathroom is the best of all, a personal area, clean, autonomy. To have your own bathroom means that you control yourself, not having to deal with other 'peoples' dirt'
Light	Surveillance gives an institutional feeling. The interior (dimmer) contributes to freedom of choice, is discreet and functional, lacks bedside lamp and desk lamp, gives a sense of self-determination
Colour and design	Good design provides convenience, colour brings joy, need for colour, recognized style, bright and positive, classy, nice, modern, and familiar design, the colour scheme of the room has a positive and calming effect, want more designs and colours, conscious colour scheme and design, overall very good, feels open and free

RESULTS

A total of 19 interviews and 78 photographs were examined closely to determine if and how a purpose-built, EBD forensic psychiatric facility supports everydayness. The following themes emerged from the analysis: *(i) having a private place, (ii) upholding one's sense of self, (iii) feelings of comfort and harmony,* and *(iv) remaining connected to one's life*. The focus of the themes, based on the text and photographs taken by the patients, is discussed below. The focus in the photographs and the related meanings are described in Table 2.

Having a private place

Being admitted to a forensic psychiatric institution means that many days of one's life are spent in a different situation, that is in incarceration, where nothing resembles an ordinary way of living. The interviews with participants suggested that a sense of everydayness is established, to a greater extent, when patients feel safe in an environment that allows them to withdraw and reflect. As one of the patients said, 'You can be alone with your thoughts without being disturbed'. The possibilities provided in the built environment appeared to be essential for the patients in their everyday lives since they were all tied to the place for an uncertain amount of time. The new facilities provided flexibility, and the patients were allowed to furnish their rooms with private objects, based on their individual designs and choices: 'It's nice to have your own stuff… everything is almost my own stuff, it's worth gold if you say so'.

Moreover, large windows and window niches in private rooms were commonly used as shelves to store private objects or to decorate the rooms. Decorating one's room with personal items, like photographs, gifts, and pictures, appeared to contribute to a greater sense of homeliness supported by everydayness. In addition, possessing one's own bedding was important with regard to enhancing feelings of homeliness. The bed was the most important piece of furniture in the room. Beds allow one to rest and subsequently may also indirectly promote recovery. All the informants took photographs of their beds and emphasized how much they meant to them. The patients ascribed paramount significance to the bed as a place where they spent most of their time, even during the daytime: 'Yes, it's good. A good bed. You must be happy to have a bed anyway'.

Upholding one's sense of self

Patients' narratives revealed that the private patient rooms helped them establish a feeling of being respected as a person and having the same value as everyone else. It was like being given approval to live their lives on their own terms. This was linked to integrity and self-respect. Being a patient in forensic psychiatric care always involves the risk of being hospitalized for a long period, which, in turn, can involve losing a sense of one's identity. Therefore, it was vital for patients to reduce their feelings of depersonalization and powerlessness in different ways. Private belongings, securing personal boundaries, and well-designed surroundings can counteract feelings of powerlessness. Wearing personal clothing and displaying one's own taste and personality through the decor of one's room is part of this: 'Clothes mean a lot. They are personal and fit me perfectly, so I feel satisfied and happy when I wear my clothes'. Another participant said, 'It means a lot to me to put on a dress… It lets me expresses myself… my taste. My style, you can say'.

The opportunity to exercise one's own interests and religion is another way in which a patient can express and preserve her/his personality and identity, for example, by being able to visit the prayer room or activity centre. It is essential to be seen as a unique individual. Likewise, a good colour scheme, a good design and an overall beautiful, harmonious and well-configured and well-designed environment can signal that 'You are worth investing in; you are someone to count on'.

Feelings of having value as a person were mirrored in the patients' stories of the benefits and importance of having their own private bathrooms and toilets. Having a private bathroom represented a sense of normalcy. The built environment also featured functional and sufficient storage facilities, which increased patients' ability to take care of their clothes and private objects. It provided them with an opportunity to be responsible for keeping their space in order. Thus, a harmonious and purposefully designed environment that can be adapted to patients' individual needs and desires and enables personal choice seems to be healing.

Feelings of harmony and comfort

A recurring theme in the patients' stories, also mirrored in the photographs, was feelings of comfort and a sense of harmony. This was rooted in a certain degree of normal living conditions, such as a private

bathroom, comfortable bed and other design features that created a comfortable and functional living space: 'It's nice to be in a quiet space, so you become much calmer yourself, and then you don't get stressed out'. Such surroundings are not only a healing environment but also a safe place where patients can relax. Despite being in custody and incarcerated, the patients said they felt safe and secure as they were under someone's care. This was especially true when everyday routines and regulations were performed in a professional and respectful manner.

The patients reflected on the fact that they could take care of themselves (e.g. caring for their personal hygiene, putting on clean clothes, and cleaning their rooms), living as normal a life as possible, which reduced their feelings of being deviant or odd. The hospital environment felt welcoming and not as scary or prison-like when family and friends came to visit. In particular, one informant emphasized that it was important for children to feel that the environment was as normal and homely as possible.

Feelings of comfort and harmony were also related to controlling one's immediate surroundings and territory; the ability to decide when one wants to be alone and who is allowed into one's own room by locking the door, for example, was described as comforting. Considerate staff who knocked on the door and waited for permission to enter created trust. All this contributed to a reduced sense of institution and thus increased normality: 'I'm so happy that you can lock the door to prevent any other patients coming in'.

Remaining connected to one's life

Being part of a context seemed to be vital to leading a meaningful life and maintaining hope. Personal belongings provided the opportunity for this. Photographs of loved ones and gifts from friends were reminiscent of being part of a larger community and having a life outside the institution. These things brought a greater perspective and instilled a sense of hope for the future. The feeling of longing for something or someone can be difficult, but it also gives life meaning and gives people a reason to not give up. It is invaluable for patients to remain connected to their lives and histories. Getting visits from family and friends were highlights for patients who had families and networks. This was something that they longed for and looked forward to: 'My daughter… is there in that picture, and that picture is very important to me. She means a lot because she is so… I just have her, I have nothing else in my life. Just her'.

In addition, having a window with a view was seen as an opportunity to 'look at' reality – life outside. It allowed patients to dream and have the opportunity to sit with their thoughts and reflect. It was particularly important that the windows did not expose the patients to people on the outside as this could have the opposite effect. In some cases, patients covered their windows to avoid exposure.

Participation in joint activities and social contact with other inmates is another way to belong and be included in a context. Activities arranged by the unit, such as training, creative workshops, and gardening, were opportunities to feel connected and to develop a sense of being a person: 'In our spare time, we spend time together. We smoke, play cards and watch TV together. That means a lot'. Having access to a computer was seen as an important tool for keeping in touch with friends and family and the outside world (this was available at hospital C). Access to a phone was important to many of the patients. Patients emphasized how the sound of a familiar voice gives a special sense of closeness. However, there were a few statements in the patients' stories about isolation connected to a comparison between the location of the old buildings with a more central location in the city and the new buildings, which were built on the outskirts of the city (hospital A). Moreover, it was said that not having access to a television or computer in their patient rooms in the old buildings forced them to use the communal areas to a greater extent, in contrast to in the new buildings where these features were available in the patient rooms.

DISCUSSION

In this study, we sought to examine patients' experiences of purpose-built, EBD forensic psychiatric facilities that aim to support everydayness. Our findings revealed that purpose-built buildings significantly support everydayness, which is in line with EBD interventions in other healthcare settings. Edvardsson *et al.* (2005) described how purpose-built nursing homes influence human encounters, as well as people's expectations and the care given, which, in turn, contribute to an atmosphere that conveys calmness and safety. Rasmussen *et al.* (2000) made observations in palliative care settings and found that care and the psychosocial and physical environment are inseparable units, which interact and create the atmosphere of a place. We found that a private place designed with care and concern for what is best for the patients gives rise to

feelings of being dignified and of not feeling like a patient in custody. This may be understood as institutional life becoming bearable as a homelike atmosphere is established under non-homelike conditions. The design and architecture of the facilities are perceived as being well thought out, and the environment as a whole functions restoratively. Moreover, the new buildings feature private bathrooms, flexible interior designs, opportunities to express one's religion, and other recreational activities, which support patients' sense of self and create comfort and an environment that is perceived as being healing by the patients. Moreover, the data revealed that the new buildings contribute to patients' sense of hope and their ability to lead meaningful lives while being incarcerated.

These findings contradict what has previously been reported in the literature concerning patients' experiences of forensic psychiatric care facilities, for example a lack of activities, boredom, and a less meaningful everyday life (Authors, 2018; Hörberg *et al*. 2012; O'Connell *et al*. 2010). We can observe here that purpose-built environments support everydayness by decreasing patients' sense of powerlessness and lack of control. Reavey *et al*. (2019) showed that patients' experiences of their life-spaces have spatio-temporal and relational dimensions. It was concluded that care delivery practices together with the design of the environment are key points in securing recovery and counteracting patients' experiences of incarceration.

Based on the body of literature, it can be concluded that (re)habilitation alliances and the use of interventions and strengthening activities, together with a purpose-built environment that takes into account patients' needs and the kind of work being performed, are means for successful care provision in forensic psychiatric settings. The physical environment, per se, whether it is purpose-built or not, is not the only single decisive factor in terms of positive care outcomes. Incarcerations, even when they are for care purposes, entail, as Hammerlin (2018) states, a long list of losses, for example freedom, relationships, and control, for the human being. These losses can never be compensated through the design of facilities, but the environment can support and foster care.

The built environment of forensic psychiatric institutions is a complex phenomenon, as the safety and security demands should be balanced against creating an environment that supports (re)habilitation, that is the care objective. Nevertheless, as shown in this study, the built environment seems to support and provide a better opportunity to (re)habilitate patients. The overall aim of forensic psychiatric institutions is to provide care for patients and protect society by preventing new crimes from being committed due to mental illness (SFS 1991:1129).

The field of EBD aims to incorporate high-quality evidence into the built environment to improve patient outcomes as an objective measure (McLaughlan *et al*. 2020). It does not focus on well-being or other factors that are not measurable but may impact patient outcomes, such as patient experiences and the concept of well-being. In other words, the emphasis is on what matters with regard to achieving better patient outcomes.

This study contributes to a better understanding of how a purpose-built environment supports everydayness and a sense of normalcy among the target group. We believe that being hopeful and leading a meaningful everyday life, accompanied by patient-tailored interventions, will lead to a better outcome for patients and, indirectly, more successful rehabilitation. While it was not the aim of this study to investigate this specific question, our findings support the inference that purpose-built facilities seem to support patients' well-being and thus their health.

In a previous study by the Olausson *et al*. (2018), based on interviews with patients before their relocation to the purpose-built facilities, existential themes were identified. These included the struggle to pursue normalcy, a feeling of being at home and homeliness, being anchored and protected, meaningfulness and being in communion. The themes that emerged in both studies appear to be similar and related, which is not surprising as existential issues and concepts, such as possessing a private home and human dignity, and being safe and part of a context, reflect fundamental human needs. There was a massive need to renovate the original forensic facilities. This was mainly a result of discomfort with regard to the old buildings due to shared bathrooms, dysfunctional and largely broken interiors, uncomfortable beds, and a lack of personal safety. The newly built institutions, on the other hand, were designed in a new and functional way, which seems to contribute to patients' recovery and motivation.

Overall, patients have more space in the new facilities and are, therefore, given greater responsibility in their everyday lives. There is sometimes a risk that patients might take things for granted; therefore, patients' sense of responsibility needs to be developed in preparation for their return to society. Findings from

longitudinal quantitative follow-up studies on the impact of relocation to the new EBD forensic facilities provide evidence of a sustainable increase in the quality of care, according to patient (Wijk *et al*. 2019) and staff (Alexiou *et al*. 2018) assessments, as well as a sustainable, improved, person-centred ward atmosphere, which supports patient choice and provides the possibility to withdraw for privacy or to socialize with others when feeling strong enough. However, in a few of their statements, patients' experiences of isolation were more obvious. For example, the old buildings promoted more social interaction as there were no televisions or computers in the patient rooms, resulting in more socializing in the communal areas. On the other hand, patients in the new environment can choose whether to socialize or not.

In the present study, the environment has a positive effect on patients' sense of well-being and harmony. The atmosphere is perceived as being calm, and the patients do not feel stressed. Askola *et al*. (2018) found that positive experiences for patients in forensic care are related to the support of the staff and the feeling of not being pressured.

In our study, patients have opportunities to do what they feel is best at any given moment. They generally feel calm in the unit but feel safest in their own rooms. The patients can lock their doors and be alone without the intrusions of other patients. The staff can knock on the doors and open them with their keys after being granted permission by the patients. This can be seen as mutual trust. Patients and staff have different everyday experiences but strive to establish trust and a caring relationship (Berg & Danielson 2007). We also found that patients emphasize positive relationships with their relatives and enjoy visits in a welcoming environment instead of the former more prison-like atmosphere.

In addition, this study noted the importance of remaining connected to one's life (e.g. through personal belongings, such as photographs and gifts). Memories and contact with relatives and friends support a feeling of hope for the future. Similar findings were mentioned by Askola *et al*. (2018), who also described patients' dreams of being able to live independently. Patients in the present study have to develop their inner strength to succeed in life after their stays in forensic care. Computers and televisions are used as tools to help build such strength in terms of having contact with the world outside the institution. This connection to society in their daily lives is of the utmost importance in relation to the care patients receive before leaving the hospital.

STRENGTHS AND LIMITATIONS

In this study, photographs were used in interviews with participants as a tool for reflection as well as to facilitate verbalization of experience. Photovoice is a recognized and proven tool for producing rich data, especially in relation to physical environments, which was of relevance in this study. Photovoice is also considered an appropriate methodological choice to reach hard-to-access groups and to enable open and honest conversations (Catalani & Minkler 2010). The involvement of the entire research group in collecting and analysing the data gives credibility to the study. The research group critically discussed the data several times during the analysis process in an open and creative way in order to apply the best focus to the material. These strategies have altogether ensured the trustworthiness and credibility of the study (Morse *et al*. 2002). However, this study suffers from several limitations; for one, participants were selected by staff members in the units, not by the research team. This may have made the selection arbitrary or inconsistent and, therefore, could be seen as a limitation. However, this may also have led to a more varied selection, due to the fact that selection was based on several people's assessments. Another limitation is that the interviews were not performed by the same researcher, which could have led to a different approach to the informants and a variation in how the questions were posed and followed up on. However, this may also have led to a greater variation in the answers and points of view. Finally, the patients' overall experiences of the new facilities as supportive raises the question of whether the researchers adopted a sufficiently critical attitude while collecting and analysing the data. However, this may also support the conclusion that purpose-built EBD facilities support everydayness.

CONCLUSIONS

The role of the physical environment in forensic settings needs to be acknowledged with regard to its potential impact on care outcomes and patients' experiences of care and incarceration. It is reasonable to conclude that purpose-built care facilities will provide a greater opportunity for cooperation between patients and staff, and thus lead to better outcomes for patients,

in line with the purpose of care provision in forensic settings.

RELEVANCE FOR CLINICAL PRACTICE

Purpose-built environments support patients' ability to uphold their sense of self and preserve their sense of being a person and not only a patient. It also supports the goal of forensic psychiatric care. This is of relevance in clinical practice in achieving (re)habilitation alliances between patients and staff and in promoting recovery.

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