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The Effect of Architecture and Design on Mental Health and Implications for Open Art Studios

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Abstract

In this literature review I will discuss the history of architecture and design in the mental health field. I investigate what has been studied on how different aspects of design, such as safety and security, noise and external stressors, space and interior layout, nature, lighting and atmosphere, art, community, and the therapeutic milieu all impacts mental health. With the understanding of these aspects, I explore the importance of and how to utilize purpose-built design in open art studio spaces. Incorporating elements such as natural lighting, open floor plans, private and open community spaces, artwork, safety procedures, and nature/views of nature, provides a supportive environment for clients' well-being and treatment.

Introduction

At one of the community mental health care centers I used to volunteer at, the open art studio room was a cramped one room awkwardly shaped space. There was little in the way of storage for artwork or art materials, and it was cold and drafty in the winter and hot and humid in the summer. The building itself was rooted in historical Georgian architecture with gorgeous exterior design, windows, and accents. There was so much about this workspace that was not ideal, but it was fueled with creative energy. There were plants placed with care in the little windows of the room, in which the daylight was able to stream in, and artwork of the community members surrounded the walls. There was an ebb and flow of the people that visited and worked in the space, changing dynamics depending on who was there. It appeared to me that the environment itself provided an atmosphere for creativity, with its historical roots and imperfections and the milieu of the people there. It was there that I first became interested in the dynamics of open art studios and the impact the physical space seems to have on mental health and why it seems people are influenced emotionally by the environment, and what that means.

Subsequently, I had the opportunity to visit the Erich Lindemann Mental Health Center, built in brutalist architectural style by architect Paul Rudolph in 1962. A powerful exterior of poured concrete, this building houses the department of mental health, group homes, offices for individual therapy, and family therapy to name a few. This building was constructed in the time of the Kennedy Administration's effort towards deinstitutionalization, moving community mental health care into an easily accessibly location within the city. The architect had the notion that there is a psychology of space and designed the building to have curvilinear walls and curved seating he believed would evoke a greater sense of community and therapeutic benefit for the patients. Critic Philip Nobel claimed that Rudolph designed the building with a romanticized understanding of mental illness, designing the building itself to reflect the qualities of those who

dwelled within (Noble, 1999). The design is meant to evoke a sense of an exaggerated mental and emotional state with twisting staircases, exterior staircases that go not to the building but through it, and meandering corridors. The layout is difficult to navigate, there is poor climate control, and the walls themselves are rough ribbed concrete and uninviting (Koh, 2010). For the community and those that work there, the building has been almost an anathema to positive treatment, a beautiful metaphor, perhaps, for the power that architecture and design has on people to irritate and overwhelm.

According to Winnicott (1991), the environment plays a critical role for human growth and development, and how people begin to understand and interact with the external world (p. 110-113). The notion that the physical environment has a direct effect on individual's psychological and physiological health is well supported in current research (Connellan et al., 2013, Daykin et al., 2018). Understanding the aspects of design and architecture that are beneficial or detrimental to well-being and mental health is important for implementing thoughtful healthcare design and reducing patients' levels of stress and enhancing recovery. In this paper, I explore the history of architecture and design in the mental health field, what has been studied on how different aspects of design impacts mental health, and what can be learned from this research as it applies to art therapy open studio spaces. I am interested in understanding why design is important and what design can do to influence how people act and interact in a space. I am curious how architecture and design can change and impact physical and mental health.

Historically, in the 19th century in the United States, design and architecture once was thoughtfully considered as a means of promoting wellness for those who were believed to be clinically insane. This idea was born out of the philosophy that changing the patients' external

environment, changes the person for the better (Osborn, 2009). Though this idea fell out of

fashion in the early parts of the 20th century, there has been a modern resurgence of this line of

study. Recent studies have shown how important implementing design choices, such as light,

noise, security, communal spaces, art spaces all have an impact on mental health (Connellan et

al., 2013). These studies have proven how a stressful environment, such as a space that has loud

noises, lack of privacy, lack of social support, confusing layout, and lack of daylight and access

to nature can all have detrimental health outcomes (Ulrich, 2001).

Furthermore, an aspect of environmental design goes beyond the physical architecture of

the facility and building and into the social architecture, or a therapeutic milieu. The therapeutic

milieu brings into the equation the human interactions in a physical environment, rather than just

the architecture alone. The milieu is where the physical environment meets the interpersonal

environment, and how people interact and move together in a space.

People moving and working together in a space, especially a creative space, brings up the

concept of the art therapy studio, where the studio space is often shaped by the people that visit,

work there, and interact. Born out of the idea of art as therapy approach, an open art studio can

be a place with the potential for a positive creative environment (Kramer, 2000). In this paper I

will explore what makes an art therapy studio design ideal or not ideal. There are also questions

brought forth, such as, can aspects of design that are shown to be beneficial be implemented

when limited by funding or resources, and can the problem of non-controllable factors such as

the physical location of a building be solved though better design?

Literature Review

For this paper I have chosen to do a critical review of the literature in order to examine in

depth the historical context of design and mental health, where the research currently stands on

the subject and the various aspects of design that have proven through the research to be essential to betterment of care and wellness. I will also explore the history of open studios, ideal studio spaces, and how what of these design aspects can be applied to an open art studio space.

History of Mental Health Facility Design

Dr. Thomas Story Kirkbride was one of the first people in American to consider the idea that design and architecture can create a healing environment for those suffering from mental illnesses. Influenced by the European philosophy of treatment moral or 'moral treatment' as it became known in the United States of America, which operates under the notion that patients suffering from what was then called insanity could be cured by instilling hope and changing their external environment (Osborn, 2009). It was believed that when surrounded by proper light, nature, and purposeful work and social atmospheres, that someone who came into the hospital insane would be able to leave cured.

As Chief Superintendent of the Pennsylvania Hospital, opened in 1841, Dr. Kirkbride operated under this philosophy of moral treatment for patients suffering with mental illness and spent 40 years developing his model for the ideal asylum design, called the Kirkbride Model. In his model, he envisioned a kind of therapeutic beauty with grandiose architecture, fountains, and beautiful, lush landscaping. The asylum was designed to be self-sustaining with land for farming and gardens. The hospital would be set on vast area of land on the outskirts of town accessible via railroad for supplies. Kirkbride planned the design of the hospital building itself, which would be linear with symmetrical wings from the administrative building, allowing for an abundance of light from the large windows and proper air ventilation. Safety and security were also considered, with the most disruptive patients placed on the outer wings, windows were

designed with bars to prevent patients escaping and anyone coming in, and the hospital was designed to withstand wear and tear from the patients themselves (Osborn, 2009).

Initially, the plan achieved great success, with a recovery rate of 70-75% in the Worcester Lunatic Asylum between the years 1833 and 1842, for example (Pérez-Fernández & López-Muñoz, 2019). However, the Kirkbride plans did not live up to how they were intended, in large part due to severe overcrowding and financial problems. With the increasing US population at the time in the late 19th century, the population of the asylums increased as well. The Kirkbride asylums eventually held triple the number of patients than it was originally designed for (Osborn, 2009). The moral treatment Kirkbride modeled his designs after required a staff and patient ratio of 1/15 (Yanni, 2003). This increase in population of patients led to a decrease of adequate care, lack of privacy and overcrowding (Osborn, 2009). Furthermore, the buildings, originally privately funded, when passed into public hands failed to adequately pay for expenses such as employee wages and electricity, which further led to the eventual denigration of the asylums (Pérez-Fernández & López-Muñoz, 2019).

Ultimately, the optimistic 19th century moral treatment that Kirkbride envisioned when he created his model, this the idea that patients can be cured in the asylum with thoughtful design, eventually fell to the 20th century pessimistic custodial treatment model. The custodial treatment model dismissed the idea that 'insanity' can be cured, and patients were more likely to be held indefinitely (Osborne, 2009). The 20th century custodial treatment involved isolation, punishments, and oftentimes neglect, and set up the negative public perception of the asylum, and mental health care in general (Pérez-Fernández & López-Muñoz, 2019).

Institutionalized care began to slowly shift towards deinstitutionalization with the development of psychiatric medicines as treatment for severe mental illnesses, federal social

welfare programs such as Medicaid and Medicare that channelled money away from psychiatric facilities and towards general hospitals and psychiatric wards, and the changing public perceptions of the asylum and mental health care (Harcourt, 2011). The trend towards deinstitutionalization was fueled by the Kennedy administration's Community Mental Health Centers Act of 1963 which led to the rise of community care facilities, outpatient facilities, and informal support networks. The idea being that community care would be more compassionate, therapeutic, and cost-effective than hospital care. This deinstitutionalized care is also associated with a growing homeless and incarcerated population (Curtis et al., 2009; Harcourt, 2001). Rather than psychiatric treatment or hospitalizations, individuals who suffer from mental illness who commit minor crimes are subjected to incarceration.

If given adequate community resources to help overcome the barriers of care, such as access to outpatient treatment, and access to hospital care, unnecessary incarceration can be avoided (Lamb & Bachrach, 2001). This stigmatization of those struggling with their mental health still to do this day faces problems with public perception, as well as struggles systemically and financially. There are lessons from the past to be avoided when it comes to mental health care facility design. Recently, there is a greater shift towards designing better spaces as a necessary aspect to effective care, while poorly designed spaces prove more difficult to provide effective care and prevent too much staff turnaround.

Current Research

According to Ulrich (2001), supportive healthcare design manages or eliminates stressful environmental factors as they relate to poor health outcomes. Characteristic such as loud noises, loss of control or privacy, lack of social support, confusing wayfinding, glaring lights, and lack of access to nature or other positive distractions are all noted as having stressful effects on

patients in healthcare facilities. Also, it is interesting to note the importance on design choices for the welfare of employees, to promote a sense of control and comfort to manage work stressors (Ulrich, 2001). Promoting a less stressful work environment for staff is beneficial as well to the clients they serve to prevent high staff turnover.

There have been found to be elements of the physical environment that directly affects mental health. On current research regarding the affects of different design elements of architecture, design and mental health, a broad review of the literature by Connellan et al. (2013), found common themes regarding the intersection of architecture, design, and positive mental health outcomes. From their systematic and comprehensive review of the literature they found 13 major themes including, "(1) security/ privacy; (2) light; (3) therapeutic milieu; (4) gardens; (5) impact of architecture on mental health outcomes; (6) interior design; (7) psychogeriatric; (8) post-occupancy evaluation, (9) nursing stations; (10) model of care; (11) art; (12) designing for the adolescent; and (13) forensic psychiatric facilities" (p. 159).

Subsequently, Lambert et al. (2014) did an arts-based research design with young children, gaining their perspectives of their ideal design for the hospital environment. They utilized an arts-based approach to collect data from 55 children aged five-eight years old across three hospitals in Ireland. A well-designed built environment is safe, offers a right to respect, dignity, privacy, and family support. For children, the hospital environment may evoke emotions such as fear, anxiety, loneliness, and sadness which can negatively affect their physical and mental well-being.

The research methods include both semi-structured interviews and participants' drawings and artwork. Most of the interviews and arts and crafts sessions took place one-on-one at the children's bedsides. The researchers also conducted group workshops with the children. Those

who worked with arts and crafts had the opportunity to create their ideal hospital environment. Once they completed their artwork, they could reflect on it and describe their ideal setting. Themes emerged relating to the physical environment (creative use of space, imaginative décor, bringing outside in), personal space (room size, family beds, privacy, storage, noise, and light considerations), and access (child and family friendly areas, sense of space, fluidity of space, communication).

In the subsequent sections, I will focus on several of these themes of environmental design; the themes that I will focus on are safety and privacy, noise and environmental stressors, space and layout, nature, light and atmosphere, community, the therapeutic milieu, and art.

Safety and Privacy

A key finding in the literature is on the importance of security and safety implemented within the design of the facility and therapeutic space. Design for safety in a psychiatric setting might involve easily observable patient living areas by staff members (Gross et al., 1998). This design element should be in place to keep patients safe from themselves and each other. Another particular risk for violence in psychiatric wards is overcrowding. A high stress environment, such an overcrowded in-patient ward can be a precipitating factor for violence. According to Kumar et al., (2001), an increase in social density is positively correlated with an increase in stress and negatively correlated with actual and perceived privacy and control (p. 434). The concept of the ideal amount of personal space variates based on culture and social variables. A Western culture, for example, might feel more comfortable with more personal space than someone from a Mediterranean country (Kumar et al., 2001). In general, in Western cultures, when placed in a high social density situation, there is a feeling of a loss of control over the environment, increasing stress and leading to an increase in violence (Kumar et al., 2001).

Situations such as overcrowding, and lack of privacy can be an overlooked aspect to psychiatric ward design. Increased feelings of privacy and control over personal space and environment can be incorporated into the design of psychiatric wards if architects and designers are in dialogue with mental health professionals. Design choices such as clearly indicating a space's intended use, making areas distinct through colors, materials, and lighting to better define a space and provide different tactile experiences, and dedicated areas for social interaction (Kumar et al., 2001).

Noise and Environmental Stressors

Noise and unwanted sound can act as an environmental stressor which has the potential to cause psychological harm. In a mental health care setting, which may be subject high levels of noise that is uncontrollable, adding levels of stress and impacting sleep (Brown et al., 2015).

The literature suggests that as the physical environment becomes more demanding, particularly in the case of urban environments, the influence of the built world plays a larger role in mental health. On why schizophrenia is largely considered an urban phenomenon, Golembiewsky (2017) proposed the Ecological Hypothesis for Schizophrenia, which outlined how a person's environment naturally makes demands on people, and negative demands can be inhibited. However, in an urban environment, where there is an onslaught of demands, the ability to inhibit those demands decreases, and they are less likely to be able to cope. They argued that there is a strong relationship between the environment and the brain, where the actions and thoughts of individuals are not the result of cognitive planning, but rather automatic responses that are mainly triggered by the environment. The built environment in urban areas, as opposed to rural areas, is designed to elicit responses, and alter behavior (billboards and flashing lights for example), and that can create a feeling that ones actions are not determined by their own

decisions, a common paranoia symptom of schizophrenia (p. 1-13). When considered from a design standpoint what this means, designers can take into account the environmental stressors, such as an excess of unwanted noise, both visual and auditory, when creating these spaces meant for recovery.

Golembiewski (2010) also researched the significance of architectural design in psychiatric care facilities, suggesting how minor design choices can have a great consequence. Supported by Ulrich (2001), who designed a model associating increased psychological stress with poor health outcomes, Golembiewski suggested understanding the environment from a salutogenic perspective. Using Antonovsky's salutogenic theory as a tool for the design choices of psychiatric care facilities can create a more healing environment.

The salutogenic theory states that a strong sense of coherence in linked to better health and is supported when internal and external environments remain predictable, comprehensible, manageable, and meaningful A sense of coherence can be used to alleviate mental health symptoms and shorten psychotic episodes. To increase comprehensibility, design elements such as texture, materials, and size of spaces and number of patients in a room is important to consider. For manageability, patients should be allowed to exercise or feel that they have some control over their environment, such as the opportunity to open windows or hang artwork, for example. In order to create a space that evokes meaningfulness, it is important to take into consideration the environment's aesthetics, order and spaces for visitors, and the opportunity for patients to have their personal belongings (Golembiewsky, 2010, p. 100-117). In this model, the relationship between the built environment and the patient is understood to be transactional and not fixed. This salutogenic model provides a guideline for architectural design of mental health care facilities for patients' best interests.

Space and Layout

As supported by Ulrich (2001), clear and understandable wayfinding is a key factor in mental health design. McLaughlan and Leng (2021) found in their research that spaces which are differentiated by color and light and are easily navigated with memorable landmarks likely leads to an improvement of the experience of healthcare environments. They argue that just like finding one's way in life or direction, finding one's way through the environment is important for autonomy and the feeling of being self-reliant. McLaughlan and Leng (2021) examined case studies which were color design installations. One study was focused on a ward for long-care dementia patients, in the U.K, built in the 1970s with monotonous corridors that lacked distinction and were considered disorientating. Environmental design is key for individual's with an age related neuro-cognitive disorder, as they cannot always adapt to their external environment, requiring the environment to be adapted to their specific needs. Utilizing informal interviews with volunteers from the ward, this case study used vivid color and graphics to aid in navigation. They found that the added color did help aid in navigation and made the space more friendly, calming, and welcoming (MacLaughlan & Leng, 2021). Though limited in its applicability, this study provides an outline for future studies how color design can be implanted as a means of promoting better wayfinding.

Marquardt and Schmieg (2009) conducted an empirical study using collected data from 30 German nursing homes and 450 residents (mild dementia n = 91, moderate dementia, n = 183, and severe dementia n = 176). They designed 5 characteristic routes related to the activities of daily living. The most significant results indicate that the size and shape of the corridors in the living area greatly affected orientation (for moderate dementia: P = .040, for severe dementia P = .001). When there was a change in direction in the corridor, as opposed to a straight corridor, the

residents' wayfinding was the most impacted. The live-in kitchen served as an anchor point, and

wayfinding to this area was easiest to locate when there was straight pathway. Understanding

what design works for each population is important for maintaining a sense of autonomy and

supportive health care environment.

Nature

The literature supports that providing access to nature positively affects, not just client

mental health outcomes, but physical health outcomes as well. Park and Mattson (2008)

performed a randomized clinical trial with surgical patients, evaluating the therapeutic effects of

plants in hospital rooms. 90 patients were studied over a 6-month period at a hospital in Korea.

The rooms were identical, located on the same floor, with the only difference being a presence or

absence of plants (the rooms containing plants had 8 species of flowering plants and foliage in

each room). In order to measure outcomes, medical and psychological data was collected

including: "length of hospitalization, analgesics used for postoperative pain control, vital signs,

ratings of pain intensity, pain distress, anxiety and fatigue, the State-Trait Anxiety Inventory

Form Y-1, Environmental Assessment Scale, and the Patient's Room Satisfaction Questionnaire

(p. 564)". The results of this study indicate that there is a psychological and psychological need

for nature, as referenced by the lower levels of anxiety, blood pressure, and heart rate in the

experimental group.

Nutsford et al. (2013) was an ecological study, which measured the proximity to urban

green spaces and its effect on mental health. The authors of this study evaluated the relationship

between the location of where individuals sought treatment for anxiety/mood disorders and

access to usable green spaces in the city of Auckland, New Zealand. Results indicate that there is

a decrease in anxiety/mood disorders with a decreased distance of usable green space.

Light and Atmosphere

Continuing in this concept of the influence of nature is the importance of natural light and

atmosphere on well-being. One study looked at the influence of multisensory environments and

patients' reported levels of anxiety. Schofield (2003) conducted a randomized control trial design

study on the effect of Snoezelen multisensory environment in palliative day care with cancer

patients. The word Snoezelen is derived from the Dutch words for dozing and sniffling to define

the almost drowsy feeling from the experience of a multisensory environment. The Snoezelen

room involves lights, music, aromas, taste, and tactile sensations, which is thought to evoke a

sense of rest and recuperation. The users of the room maintain some control over the

environment, adapting it to how the individual client sees fit (p. 124-129).

A randomly selected half of the participants of the study was given access to the

Snoezelen and half a quiet room for same amount of time. After completion of the trial, semi-

structured interviews were conducted and analyzed using Burnard's stages of analysis.

Qualitative data from the interviews indicated that patients' anxiety improved with access to the

Snoezelen room. They reported themes of calm (relaxing), sleep, continued effect (potential for

long-term effect), and environment (pleasant atmosphere) (Schofield, 2003). Though the results

of this study are promising, there needs to be more research on this area and how effective this

type of environment would be for different populations, including those with dementia or

individuals on the autism spectrum.

On the atmosphere of the hospital room, Radley and Taylor (2003) studied the affects of the physical setting, the hospital ward, on patients' recovery through the medium of photography. The researchers used photography as means to record each patient's viewpoint and experience of the hospital ward, a method they argue is more powerful than interviewing alone. This study was conducted in the English Midlands addressing the experiences of hospital patients with upper gastrointestinal issues who had a stay longer than 10 days.

The researchers asked the 9 participants to photograph up to 12 things they found significant about their stay, which could include positive or negative items in the hospital, spaces, or objects they brought with them. Subsequently, they were given open-ended interviews about the photographs and asked to choose the photo that was most important in capturing the experience of the hospital. One example of the objects photographed included the bed; all patients photographed their bed area, a place of both comfort and discomfort. Other negative associations with the hospital are imagery of the drips (physical connection to the hospital), screens that closed around the bed meaning that invasive tests were about to be done, bathrooms that looked clinical and lacked personal amenities affecting patients' sense of dignity (Radley & Taylor, 2003).

The photographs were useful in facilitating interviews with the patients about their experience on a hospital ward. The study concludes that photography can be a useful technique in allowing for visual communication for experiences that is challenging to verbalize. The photographs themselves appear insignificant and banal until they are brought to significance with the patient's commentaries. The patients described more than just the objects or spaces in the hospital, but sources of their treatment, care, and discomfort.

Community

The literature also points towards the idea that a facility needs to be designed to be a transitional space, from hospital life to the community. Curtis et al. (2009) studied the methods in which design of inpatient facilities impacted the experience of people with long term mental illnesses, specifically the link between the facility and the community. This study was conducted at a new Psychiatric Inpatient Unit in East London, UK. In the past, long-term residential asylums were in isolated areas of the country, while these new acute units are located within a more accessible area. This follows the shift towards permeable institutions, influenced by the idea of relational geographies. This study was designed to assess what of the new hospital design contributed to a healing or 'therapeutic landscape' for both patients and staff. To answer this inquiry, the researchers conducted unstructured discussions with a small group of participants: 7 who had experienced treatment in the new hospital, 10 hospital staff members (nursing and managerial staff), and 3 consultants (clinicians). To this group, the researchers posed two questions,

> 1) What specific features of [the hospital] (in terms of physical layout, activities, etc.) do you think are good for the well-being of users and staff? (2) What specific features of [the hospital] do you think are not good for the well-being of patients and staff? (p. 342)

With these questions, the researchers aimed to assess what of the hospital design contributed to a greater sense of well-being for both staff and patients. These discussions were tape recorded and transcribed, and which the principal investigators read through and identified major themes. Their method for transcribing was attributional coding, to understand the respondents' reasoning for how and why the features of the hospital impacted their well-being. From these discussions,

the main theme that emerged was the notion that the hospital should be considered a transitional space; the hospital is not meant to be a permanent place of residence and should instead reflect a transition from hospital life to life within the community. In a design sense, the hospital should include access to links in the community. This includes transportation so patients can visit the community, allow for friends and family to visit, and public spaces which allow the mix of those using the services, staff, and members of the public. While there are positive aspects to this permeability, there are also risks associated with allowing access to the community for both the patients and the public. The researchers acknowledge that this is a design challenge, a balancing act, to have both a flexible permeable hospital setting that is also best suited for the care of the patients and the community. Also, a challenge is managing lack of resources allowing for patients transport to retain their links within the outside community (Curtis et al., 2009).

The researchers of this study acknowledged that their small sample size is a limitation, as well the fact that they only surveyed one hospital and its conclusions may not be universal. Other themes that emerged from these discussions included maintenance of the grounds and rooms, ability to walk outside or in garden, anxiety when moving from the old building to the new building, and relationships between patients with each other and staff. This study posed simple questions that would be interesting if asked to a considerably larger group of people. The researchers acknowledged that the study conducted here was a very small sample size, which also did not include non-English speakers (the area treated was from a very ethnically diverse area of East London). An area of future research as well would be looking at the hospital design needed for patients with varying mental health issues, including substance abuse disorders, eating disorders, etc.

Milieu Environments

When considering a milieu environment, treatment in a milieu setting takes into account the therapeutic community as opposed to only individual therapy. The entire environment is important to the therapeutic process. Nicholls et al. (2015) in their study on the changes in atmosphere of an acute mental health facility upon relocation to a new "purpose-built" building found that relocating an acute adult mental health facility did not on its own improve the atmosphere or milieu for staff, patients, or carers. The older building is described as cramped, dark, few outdoor areas, minimal socialization spaces and shared bedroom and bathrooms. The new building included individual bedrooms, courtyards, spaces for socialization and visiting areas. Using a Ward Atmosphere Scale (WAS), they found significant improvements to the physical atmosphere of the new facility, though the milieu was not significantly different. They hypothesized that this because in a milieu setting, the atmosphere is not just the physical building or the environment, it also factors in the social environment. People in the environment are just as important as the physical structures.

Supporting this idea, in their broad review of the literature on architecture and mental health, Connellan et al. (2013) found common themes regarding the intersection of architecture, design, and positive mental health outcomes. One of the common themes and positive aspects to mental health care is the significant of human interactions. Architecture on its own does not support or generate positive mental health outcomes. Though it can help, it is the often in combination with a supportive social environment as well.

The atmosphere of the environment, or the milieu setting, invokes more than the physical structure or space. A milieu comprises of the interactions of people all moving within a space or environment and interacting with each other.

Art

In their evaluation of the research on the topic of arts in health, Staricoff (2006) found qualitative and quantitative data supporting the inclusion of art projects in hospital environments as positively impactful (p. 116-119). Several studies of different arts-based projects in hospital settings have shown that including arts in recovery reduces stress levels, improves mood, accelerates recovery speeds, reduces need for medication, and improves communication (Staricoff, 2006). Staricoff (2006) also found in their evaluation of quantitative studies, that integrating both visual arts and live music effective in preparing patients for surgery. Live music and art had the effect of lowering heart rates, blood pressure, diminished the stress hormone cortisol, and reduced patients' needed amount of sleep induction ahead of an anesthetic. Furthermore, another study indicated that patients who are in recovery after surgery needed less stay in the hospital and recovered quicker when they were in the presence of visual art and live music (p. 118-119). This evaluation shows that the arts when integrated into a healthcare setting can lead to beneficial clinical and mental health outcomes.

Another literature review by Daykin et al. (2008), specifically looked at the intersection of arts and mental health and found 19 quantitative, qualitative and mixed-methods studies relating to art, design, and environment on healthcare settings. Ten of those studies assessed the effects of art and design using outcome measures, such as clinical and behavioral effects. Two of the studies looked at validated assessment tools, while the remaining seven assessed patient and staff subjective responses to the design of healthcare environments. Key findings of this review

include evidence that exposure to the arts positively affects clinical and behavioral outcomes; the arts may reduce anxiety and depression, stress, reduced risk, improved wayfinding, and overall positive perceptions of the healthcare environment.

On which type of artwork was most beneficial to view, this review found evidence for calming naturalist art over abstract or challenging art. This literature review highlighted a need for further research that is attentive to procedures and detailed methods of extracting themes from data and examining which style of artwork is most beneficial in different settings and populations (Daykin, et al., 2008, p. 92).

Open Studios

History

Moon (2016) acknowledged that there are multiple perspectives on the origin of the open studio approach, as artmaking within the community deviates from the more psychodynamic aspects of the history of the filed of art therapy. The open studio approach began in the 1930s in the Unites States by individuals like Mary Huntoon, opening a studio at the VA hospital where patients could make artwork (Finkle & Bat, 2020). In the early contributions to the concept to an open art approach, art therapists of color, such as Georgette Powell, Cliff Joseph, and Lucile Venture engaged in community and political activist art, met people within the context of their community, and made an art approach more accessible to people who were marginalized from race or socioeconomic status (Moon, 2016).

Allen (1995) originally used the term open art studio to describe the model of group art therapy she utilized where she was working at a short-term psychiatric unit. She describes the main attribute of an open studio as energy, sourced from the people working in the space. The act of making art together breaks down barriers between people, allowing them to connect to

each other on an empathic basis. She talked about the significance of her making artwork

alongside the patients at the open studio space (p. 160-166). Rather than making artwork for an

interpretive process, the open art studio enacts an art as therapy approach where the artmaking

process and flexible community-driven atmosphere is paramount to the therapeutic work

(Kramer, 2000). Moon (2016) stated that the core of the open studio belief is the concept of

relational aesthetics, or art as a means of connecting and forming interaction with and among

others.

Art Therapists' Role

There is evidence as well that providing not just an open studio space, but one that is led

and facilitated by a qualified art therapist is important for encouraging self-efficacy. When

contrasted with individual therapeutic coloring versus an art-therapist facilitated open art studio,

the latter resulted in improvements to self-efficacy and positive affect. This study was conducted

at a dedicated art therapy studio with 36 medically healthy adults aged 18 to 70, who were not

screen for mental health status. Using the Positive and Negative Affect Schedule (PANAS), the

perceived stress scale (PSS) and questions derived from the scales of creative self-efficacy and

identity, the researchers found that the art-therapist led open art studio resulted in improvements

in self-efficacy, positive affect, and creative agency (Kaimal et al., 2017). The role of the art

therapist is to offer the chance for individuals to be seen through their art, for them to be a co-

creator or collaborator, to contextualize their expertise of materials and processes with the studio

and the participants (Moon, 2016).

Studio Characteristics

According to Malchiodi (1995), one of the characteristics of a studio approach to art

therapy centers around the idea of space, and how the environment and those who visit it comes

together. There is also a more involved art process in absence of in-depth directives and the addition of more time. The open studio approach provides the space and conditions available for the artmaking process, along with the materials and influences that shape and are shaped by those who participate in the space (McNiff, 1995; Moon, 2016). According to Moon (2016), the ambiance and functionality of the studio space is very important, ideally generating flexibility and imagination.

Settings

In their scoping review of the literature, Finkle and Bat (2020), found that 41% of open studios took place in community-based settings, such as art centers, shelters, rehabilitation centers, galleries and more. 31% took place in a hospital or medical setting, such as a psychiatric hospital, general hospital or clinic. 8% of open studios were in academic settings, including open studio settings to train art therapists. 6% were in educational settings, such as schools, and 14% did not specify location (Finkle & Bat, 2020, p. 6).

Ideal Studio Space

Often, art therapists find themselves working in spaces that are not ideal, and instead having to have a sense of flexibility working with what they have. The reality of these communal spaces is that people can drop in at any time, the space is shared, and there is no privacy. They perhaps have a limited budget and don't necessarily have the tools available for crafting the ideal studio design. Malchiodi (1995) identified a difficulty of working as an art therapist with a studio approach, which is the financial aspect. When a program is not traditionally clinical based, it is challenging to receive funding through third party payments.

That ideal studio art space that evokes images of grand spaces with ample lighting, storage, and vast amounts of art materials are often not the reality (Moon, 2001). The reality of

the spaces instead may be fluorescent-lit basements at a community mental health center,

kitchens at a shelter or bedsides at a nursing home. Whatever the space, Moon (2001) suggested

that a sense of place for an art studio is not just created by the physical space, but the ability to

creatively make use of unlikely and unideal environmental circumstances (p. 70). How the

furniture is arranged, the lighting, the sounds, privacy, order or mess all work together to create

the studio space (Moon, 2001).

Moon (2001) explored the idea of using artistic sensibilities to reimagine and

reconceptualize workspaces to intentionality cultivate a therapeutic space (p. 83). Though people

do not often find themselves with the ability to change or influence the architecture or design of

the physical space, Moon (2001) suggested modeling reconceptualizing physical spaces after

installation art, in order to see the potential in seemingly uncontrollable environments.

Installation artists create a space in a physical environment, paying attention to the relationship

to its surroundings and the people who visit it (p. 82-86). In this manner, if a space is less than

ideal, perhaps a basement in a poverty-stricken area of the city, how can this communal studio

space be made to feel connected to the surrounding communities or what positive aspects of the

space can be emphasized that may be taken for granted? Sometimes even the creative presence

matters more than the physical features, with imperfect environments even feeding the creative

energy of the space (McNiff, 1995).

Mcniff (1995) discussed the studio environment as a type of spirit that impacts people in

different ways. Just like art materials evoke different emotions and energies, studio space itself

influences the energy inside. A smaller space filled with people might evoke a more crowded

energy than a larger open studio space (p. 180-181). When considering how to create a

therapeutic studio space, therapists and facilitators also need to think about the people who move

through this space. Creating a therapeutic art studio space leaves room for the client to be co-creators of the space, allowing the individuals who utilize the space to mold and shape it. Not everyone's reaction to music or noises or aromas, for example, is the same and there perhaps is not optimal therapeutic musical genre for everyone.

Discussion

In summary, the built environment holds significant impact on well-being, as evidenced by the literature. While the Erich Lindemann building and old-fashioned hospital corridors shows us how architecture and design have power to confuse, irritate and disorient, this literature review also illustrates that better design, such as clearly labeled mapping, natural light, calming atmosphere, a sense of control over surroundings, safety, and access to community can encourage healing and aid in recovery. Poor design has been shown to increase blood pressure, anxiety, and increased risk of infections, while exposure to views of nature and art is linked to positive patient outcomes and reduction in stay at hospitals (Ulrich, 2001). Designs of psychiatric facilities, hospitals, nursing homes, memory care units or dementia wards, and community mental health centers can all benefit from this body of research. Architects and designers can promote wellness by creating psychologically supportive environmental surroundings. When architects are designing spaces for mental health care facilities, it is important to have information and research available that they can utilize to implement designs that are conducive for a supportive therapeutic environment. Potential questions to ask are, who is the design for, what is there to be done to benefit this population and aid their recovery, and what designs are detrimental to this population? Though oftentimes designers or therapists have little control of the physical space, there are smaller steps to improving upon the built environment.

The relatively smaller environmental changes that could have a large impact, such as adding that small plant near the windows or clearly labeling materials and outlining guidelines for a sense of containment. Though the open studio design and space itself often has less than ideal features, the studio design can be like an installation, taking care to have comfortable places to sit, an attention to the layout of the space, the lighting, and safety guidelines (Moon, 2016).

One of the important aspects of design essential for well-being is safety and privacy, but how does the concept of safety apply in an open studio setting where there may not be any clear boundaries or privacy? These are considerations that art therapists working in a community-based setting needs to be transparent about and consider in advance how to best keep people from harm and hold a sense of containment (Moon, 2016). Some open studio models choose to display artwork in the studio space, while exhibition of artwork created in the context of the studio outside the space can be problematic for confidentiality (Finkle & Bat, 2020). Exhibitions of artwork can also highlight the strength and creativity of stigmatized and marginalized members within the community at large (Moon, 2016). The open studio concept also can refer to the salutogenic model of treatment, emphasising the creativity and empowerment of the participant-artist, with spaces that are transactional and hold flexibility (Finkle & Bat, 2020; Golembiewski, 2010). Designing the therapeutic art studio space with the clients as co-creators allows for a greater sense of manageability and meaningfulness in the space. According to Moon (2016), a main feature of the open studio approach is its "focus on collectivity", and working within the context of community, generating an atmosphere of belonging. and artmaking as a means of identifying strengths and needs (p. 118).

It is my hope that this paper can be an additional voice to the conversation regarding the implementation of better design in mental health care and building that dialogue around the importance of purpose-built design.

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In the judgment of the following signatory this thesis meets the academic standards that have been established for the above degree.

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