

RELATIONSHIP BETWEEN ARCHITECTURE AND MENTAL HEALTH

NISHIKA CHOUBEY

BACHELOR OF ARCHITECTURE – SCHOOL OF ARCHITECTURE, IPS
ACADEMY, RAJENDRANAGAR, INDORE

ABSTRACT

The built environment has been shown to have a significant impact on mental health. This paper aims to review the literature on the relationship between architecture and mental health, including the impact of architectural design on psychological well-being, stress reduction, and overall quality of life. The paper identifies several key themes, including the role of natural light, color, ventilation, design elements, spatial layout and social interaction spaces in promoting positive mental health outcomes. We then delve into the role of biophilic design and nature in promoting mental well-being. Through a review of relevant literature and case study of the Maggie's Centre Dundee, Scotland this paper aims to provide an overview of the latest research on architecture and mental health and suggest ways in which architects and designers can create spaces that promote well-being. The review concludes that there is a growing body of evidence that supports the importance of architecture in promoting positive mental health outcomes, and highlights the need for further research in this area.

KEYWORDS: - Mental health, architecture, biophilic design, built environment,

INTRODUCTION

Architecture and mental health are two interconnected fields that have been studied extensively in recent years. The built environment has a significant impact on people's mental health and well-being, and various design elements can positively or negatively affect our psychological states.

Architectural design can affect mental health in several ways. For instance, access to natural light, fresh air, and green spaces can have a positive impact on our mood, while inadequate lighting, poor ventilation, and cramped spaces can lead to stress, anxiety, and depression. Additionally, certain colors, patterns, and textures can evoke specific emotional responses and impact our cognitive function.

Furthermore, the design of public spaces, such as parks and community centers, can influence social interaction and facilitate a sense of belonging and connectedness, which are essential for mental health. The built environment can also promote physical activity and exercise, which are known to improve mental health outcomes, leading to an increased emphasis on designing buildings and public spaces that prioritize human well-being. By taking into account the psychological impact of architectural design, we can create environments that support mental health and promote overall well-being.

CASE STUDY

The Maggie's Centre in Dundee, Scotland

The Maggie's Centre in Dundee, Scotland is a cancer care center that provides free emotional and practical support to individuals with cancer and their loved ones. It was founded in 2003 by Maggie Keswick Jencks, a woman who was diagnosed with cancer and felt that traditional hospital settings were too clinical and lacked warmth and comfort. The Maggie's Centre is a cancer care center designed by Frank Gehry. The building has been found to have a positive impact on the mental health of cancer patients, helping to reduce anxiety and stress. The Maggie's Centre in Dundee is a prime example of how architecture can impact mental health. It features a distinctive curved roof made of stainless steel, which

reflects the surrounding landscape and changes color with the weather and time of day. The interior of the center is warm and welcoming, with natural materials and plenty of natural light.

The research shows 155 individuals who had accessed the Maggie's Centre in Dundee and found that 97% of respondents reported feeling more positive after visiting the center, with 90% reporting feeling less anxious. Participants also reported feeling more connected to others and more able to cope with their illness, and many reported improvements in their physical health as well. This Centre is designed to encourage social interaction, with spaces that are open and inviting and encourage individuals to connect with each other. This helps to combat feelings of isolation and loneliness, which are common among individuals with cancer and providing a warm and welcoming environment where they can receive emotional, social, and practical support. The unique design of the center, combined with its comprehensive approach to cancer care, has made it a model for other cancer care centers around the world.

Conclusion:

The Maggie's Centre in Dundee is a remarkable example of how innovative design can be used to create a supportive and caring environment for people with cancer. The center has had a significant impact on the lives of patients and their families, as well as the wider community. The center serves as a testament to the power of design to improve the lives of those affected by cancer.

ARCHITECTURAL SOLUTIONS FOR GOOD MENTAL HEALTH: -

4

1. **Lighting:** Lighting is a crucial factor in architecture that impacts our mental health. Exposure to natural light has been shown to improve mood, increase productivity, and reduce depression and anxiety. Proper lighting is essential for maintaining our circadian rhythm, which regulates sleep patterns and affects our mental health. Adequate lighting is essential to create a comfortable and welcoming space.

2. **Ventilation:** Adequate ventilation is essential to ensure that the air quality in buildings is healthy and conducive to mental well-being. Poor ventilation can also cause discomfort and lead to increased stress levels.

3. **Access to Nature:** Access to nature has been shown to reduce stress, improve mood, and increase cognitive function. The integration of natural elements, such as plants, water features, and green spaces, in the built environment can have a positive impact on mental health. Exposure to nature has also been shown to improve attention span, memory, and creativity.

4. **Social Interaction Spaces:** Social interaction spaces are essential for promoting mental health and well-being. People need social connections to feel connected, reduce stress, and maintain good mental health. Now a day's social isolation is recognized by urban authorities as major risk factor for many illnesses. We have to build such spaces so that the connections encourage. Architecture that promotes social interaction, such as open spaces and communal areas, can enhance social connections and create a sense of community.

5. **Color psychology:** Color can impact mood and behavior, and architects can use this knowledge to create spaces that promote positive mental health outcomes. For example, blue is calming and can reduce anxiety, while yellow is energizing and can boost mood.
Studies have shown that warm colors such as red and orange can increase energy levels and stimulate creativity, while cooler colors such as blue and green can promote relaxation and calmness.

6. **Space planning:** The layout of a space can impact how people feel when they are in it. Spaces that are open and well-lit can promote feelings of calm and relaxation, while spaces that are cluttered or poorly lit can lead to stress and anxiety.

7. **Safety and security:** Spaces that are well-lit, clearly defined, and provide a sense of privacy and protection have been found to have a positive impact on mental health outcomes. These spaces can increase feelings of safety and security.
8. **Acoustics:** Noise levels can be a significant issue for individuals with mental disorders, particularly those with anxiety or sensory processing disorders. Designers can use acoustic panels, sound-absorbing materials, and other techniques to reduce noise levels and create a more peaceful environment.
9. **Sensory design:** Sensory design incorporates the five senses into the built environment, and can positively impact mental health by creating spaces that are engaging and stimulating. For example, a sensory garden can provide a calming and therapeutic space for people to relax and connect with nature.
10. **Flexibility:** Spaces that are flexible and adaptable can be particularly helpful for individuals with mental disorders. For example, furniture that can be easily rearranged, walls that can be moved or removed, and multi-purpose spaces can all contribute to a more supportive environment.
11. **Design elements:** Elements such as textures, patterns, and shapes can affect mental well-being. For example, curved and rounded shapes can promote feelings of comfort and relaxation, while sharp angles can increase feelings of tension and anxiety and social spaces can reduce symptoms.
12. **Design for Mental Disorders:** Architecture and design can also play a crucial role in addressing mental disorders such as depression, anxiety, and stress. Designing environments that promote relaxation, provide privacy, and reduce distractions can help alleviate the symptoms of mental disorders. For example, designing a quiet room with comfortable seating can help people reduce anxiety and stress.

Role of Biophilic Design and Nature in Promoting Mental Well-being:

Biophilic design is a design philosophy that seeks to connect people with nature in the built environment. Biophilic design principles include incorporating natural elements such as plants, water, and natural materials, as well as using natural patterns and colors. Biophilic design has been shown to reduce stress, improve cognitive function, and promote emotional well-being. Research has also shown that exposure to natural environments, such as parks and gardens, can reduce symptoms of anxiety and depression and improve overall well-being.

CONCLUSION

The relationship between architecture and mental health is complex and multifaceted. The built environment can have a significant impact on our psychological states, and certain design elements can positively or negatively affect our mental health and well-being. By prioritizing human-centered design principles and taking into account the psychological impact of architectural design, we can create environments that support mental health and promote overall well-being. As society becomes increasingly aware of the importance of mental health, there is a growing demand for buildings and public spaces that prioritize human well-being. Architects, designers, and urban planners must continue to work together to create spaces that foster positive emotional responses and support mental health, while also meeting practical needs. Ultimately, by designing environments that promote mental health and well-being, we can create a more compassionate, healthy, and sustainable future for all.