



MENTAL HEALTH BY DESIGN: THE ROLE OF VISUAL AESTHETICS IN CREATING CALMING AND INCLUSIVE SPACES

Case Study: The Maggie's Cancer Care Centres in the UK — designed with architecture + interior design specifically to support mental health and healing

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Abstract

This study explores how different parts of architecture and interior design can be used to create places that are relaxed and friendly, which is good for mental health. The literature review talks about the design's major effects, issues, and ways to fix them. The conclusion stresses the need for better therapeutic healthcare settings that are based on research, work well with others, and are flexible, like those found in Biophilic Design and Environmental Psychology. The study seeks to understand the way environmental psychology and design interact with one another, and the role of visual aesthetics and their impact on mental health and inclusiveness. It is introduced by giving the increasing significance of design to wellbeing and describing Maggie Cancer Care Centres as a case study, an example of how Heidegger expresses healing as architecture. The methodological procedure stipulates an interpretivist philosophy whose philosophy is deductive and case based. The design used is explanatory, utilising both secondary data and thematic analysis of Maggie Centres. Systematic screening is promoted due to PRISMA protocols and Boolean logic used to conduct data collection, whereas stringent inclusion criteria and ethical precaution would guarantee academic integrity and sensitivity of the context in mental health analysis through design.

1.0 Chapter 1: Introduction

1.1 Research Background

The building and interior design of Maggie's Cancer Care Centers in the UK are meant to improve mental health (Gronostajska & Czajka, 2021). Aesthetics like natural light, color schemes, and the way rooms are set up can all be used on purpose to help people feel less stressed, improve their health, and make cancer patients feel at ease.

1.2 Research Aim

The aim of this study is to examine how architectural and interior design at Maggie's Cancer Care Centres influences patient wellbeing and creates calming, inclusive, therapeutic environments.

1.3 Research Objectives

- To identify visual aesthetics at Maggie's Cancer Care Centres that creates calming and inclusive environments.
- To determine how architectural and interior design elements at Maggie's Centres influence patient wellbeing.
- To mitigate challenges in applying design strategies for mental health-supportive spaces, using insights from Maggie's Centres.

1.4 Research Question

- How do the architectural and interior design elements at Maggie's Cancer Care Centres influence patient wellbeing and create calming, inclusive environments?

1.5 Problem Statement

The main problem addressed in this research is the absence of comprehensive, evidence-based strategies that explain how architectural and interior design elements collectively influence patient wellbeing. Despite growing recognition of design's role in mental health, healthcare environments often lack inclusive, calming, and therapeutic design frameworks, limiting their ability to effectively support patients' psychological and emotional needs.

1.6 Significance of the Study

This study will show how significant it is for mental health, and it gives architects and designers to work in healthcare with useful information. The results will help to make therapeutic spaces that improve

patients' health and well-being, promote inclusion, and shape policy, design standards, and future study in health-focused settings.

2.0 Chapter 2: Literature Review

2.1 Visual Aesthetics in Calming Spaces

Colour, lighting, patterns, and the way things are arranged in a room are all important parts of making it a relaxing place to be. Peters & Halleran (2021) stated that natural light and views of nature can help reduce stress and speed up recovery. Abouelela (2023) narrated that biophilic aspects are important for improving mental health.

On the other hand, Rhoads & Murphy (2024) highlighted that designs that are too simple or clean may make people more anxious, which means that balance is important. On the contrary, Thani et al. (2023) narrated that colour schemes that are appropriate help people relax, but how people see them depends on their culture. Overall, the research supports the idea that thoughtful visual aesthetics have a good effect on mental health, though there are different ways to put this idea into practice.

2.2 Influence of Architectural Design on Wellbeing

The way buildings are made has a big effect on people's health and happiness because it changes their mood, stress, and how they connect with others. Thani et al. (2023) stress that being around nature and carefully planning how spaces are used can help people recover faster and feel less anxious. AlWaer et al. (2021), on the other hand, stress the importance of practical design, saying that places that are too crowded or not well organised can be bad for mental health even if they look nice.

According to Javid Khan and Lucas (2–24), flexible, human-centred designs encourage independence and comfort. However, Lile et al. (2025) say that focusing too much on innovation may mean forgetting about users' psychological needs. A lot of research says that the way buildings are made affects people's health and happiness. There are different ways to look at this, like from an aesthetic, a practical, or a person-centred point of view.

2.3 Impact of Interior Design Elements on Mental Health

Things like color, lighting, furniture, and materials used in interior design can have an effect on a person's mental health. According to Thorpert et al. (2023), warm colors and natural materials can help reduce

stress. On the other hand, Penacchio et al. (2021) narrated that too much or too little difference can be uncomfortable.

Cruz et al. (2021), on the other hand, stress how important it is to organise space and have furniture that can be moved around to promote comfort and independence. The research mostly agrees that room design can affect mental health, but there are some differences in how they stress this.

2.4 Challenges in Implementing Mental Health–Supportive Design

Implementing a design that promotes mental health has challenges, including constrained funds, institutional resistance, and a diverse user base. Katoue et al. (2022) pinpoint inadequate funding and rigid healthcare rules as impediments, whereas Yeh et al. (2023) emphasise the discordance between functional requirements and therapeutic goals.

McIntosh et al. (2025), on the other hand, stated that cultural diversity and personal preferences make it harder to standardise design. Literature generally concurs that these issues impede adoption, while the suggested solutions vary between policy-driven and user-centred methodologies.

2.5 Strategies to Overcome Design Implementation Challenges

Policy, design, and user-centred strategies must all work together to make mental health–supportive design work in places that are hard to adopt. Pellegrini & Vivanet (2021) narrated that institutions should use evidence-based design principles in their policies in order to get funding and support from management. Sanz et al. (2021) stress the importance of participatory design methods, which include both healthcare staff and patients in the planning process to make sure that therapeutic and functional needs are met.

Katoue et al. (2022) incorporated how important it is to have culturally aware and adaptable design solutions that can work for a wide range of users. AlWaer et al. (2021) offer modular layouts and furniture that can be moved around so that changes can be made in the future without having to do major renovations. By working together, architects, psychologists, and healthcare experts can make sure that designs are both useful and helpful, which improves patients' health while also meeting the needs of the institution.

2.6 Theoretical framework

The application of **Biophilic Design Theory** incorporates the natural elements, daylight, greenery, and organic materials into spaces to reduce stress, enhance well-being, and promote healing. **Biophilic Design Theory** stresses how individuals are naturally connected to nature and how that connection can help their

mental health (Gaekwad et al., 2022). Adding natural elements like plants, water features, natural materials, and sunlight to healthcare and therapy environments can help people feel better, lower their stress levels, and speed up their recuperation. Research indicates that exposure to biophilic surroundings enhances cognitive performance and decreases anxiety levels in patients.

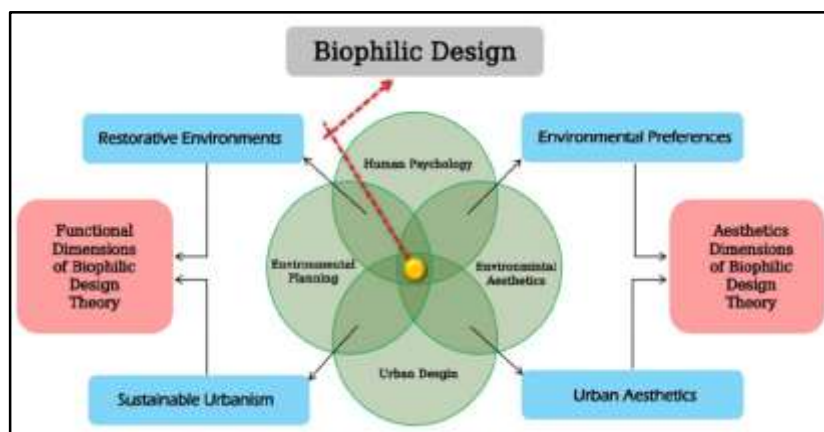


Figure 2.1: Biophilic Design Theory

(Source: Gaekwad et al., 2022)

Biophilic design informs architectural and interior decisions to promote mental well-being (Tekin et al., 2023). It ensures that the colors, textures, and layouts of the places adhere to natural principles. This research investigates how visual aesthetics and environmental variables at Maggie's Centres promote calming, inclusive, and therapeutic experiences for patients.

The application of *Environmental psychology* is designing spaces that consider human behaviour, emotions, and interactions, optimising lighting, layout, colour, and acoustics to enhance well-being, reduce stress, and support mental health in occupants.

Environmental psychology observes how people's actions, feelings, and health are affected by their actual surroundings and how those changes over time (Lawrance et al., 2020). It stresses how important space layout, lighting, noise control, and colour are in shaping psychological reactions in healthcare design. Supportive environments can lower stress, boost mood, and make it easier for people to connect with others, especially those who are weak, like people who are getting treatment.

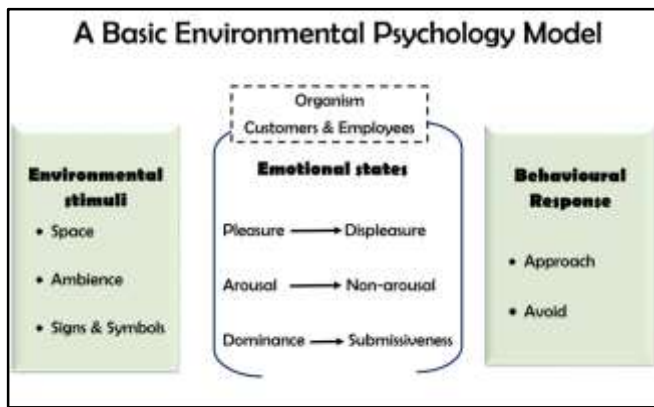


Figure 2.1: Environmental Psychology Theory

(Source: Lawrance et al., 2020)

Using this theory helps to understand how different parts of architecture and interior design affect the health and happiness of patients, which leads to better design choices based on facts. Environmental psychology is used as a framework to look at how Maggie's Cancer Care Centres make calming, welcoming spaces that meet both the emotional and practical needs of patients.

2.7 Literature gap

Although research shows that visual aesthetics and design have a positive impact on mental health, few studies look at how architectural and interior design aspects work together to create inclusive, peaceful environments. There is less empirical information on practical techniques for implementing mental health-supportive design in real-world healthcare contexts.

3.0 Chapter 3: Methodology

3.1 Research Philosophy

The philosophy of this research is an **interpretivist** one that puts a lot of emphasis on lived experience in planned settings. Safety, belonging, and peer support are elicited through domestic cues at Maggie's Centres, which include kitchen-table centres, planting perspectives, and layered privacy. According to RIBA (2022), the Leeds centre (opened 2020) demonstrates garden-topped volumes and intimate rooms which are built around a communal heart and which indicate a logic of design that considers meaning and emotion as data whilst acknowledging the boundaries of generalisability.

3.2 Research Approach

A **deductive approach** starts with propositions drawn based on current UK estates guidance and environmental psychology, which it applies to the spatial programmes and user outcomes of Maggie. The

NHS guidance emphasises daylight, acoustics, visibility, dignity, and privacy, supported by the 2023 supplement to Health Building Note 03-01 of safe settings (NHS England, 2023). Testing propositions against organisational data, nearly 210,000 centre visits in 2020, is done (Maggie, 2020). It is acknowledged that deductions can be biased against site-specific contingencies.

3.3 Research Design

Thematic analysis at the chosen Maggie Centres is organised in an **explanatory research design**. Coding is the relationship between colour strategy, spatial order, touch finishes and biophilic attributes and experiences of calm and orientation and social support. The kitchen heart at Leeds brings together open lounges and smaller retreats without medicalising the space, corresponding to salutogenic signals (Architectural Digest, 2020). Different authorship, budget, and urban context make it difficult to make cross-case causal inferences, and cross-case claims should be taken with caution.

3.4 Data Collection

The secondary evidence is organised by following clear procedures that are aligned with the PRISMA 2020 update, namely, the checklist and flow diagram of the identification, screening, eligibility and inclusion (PRISMA, 2021).

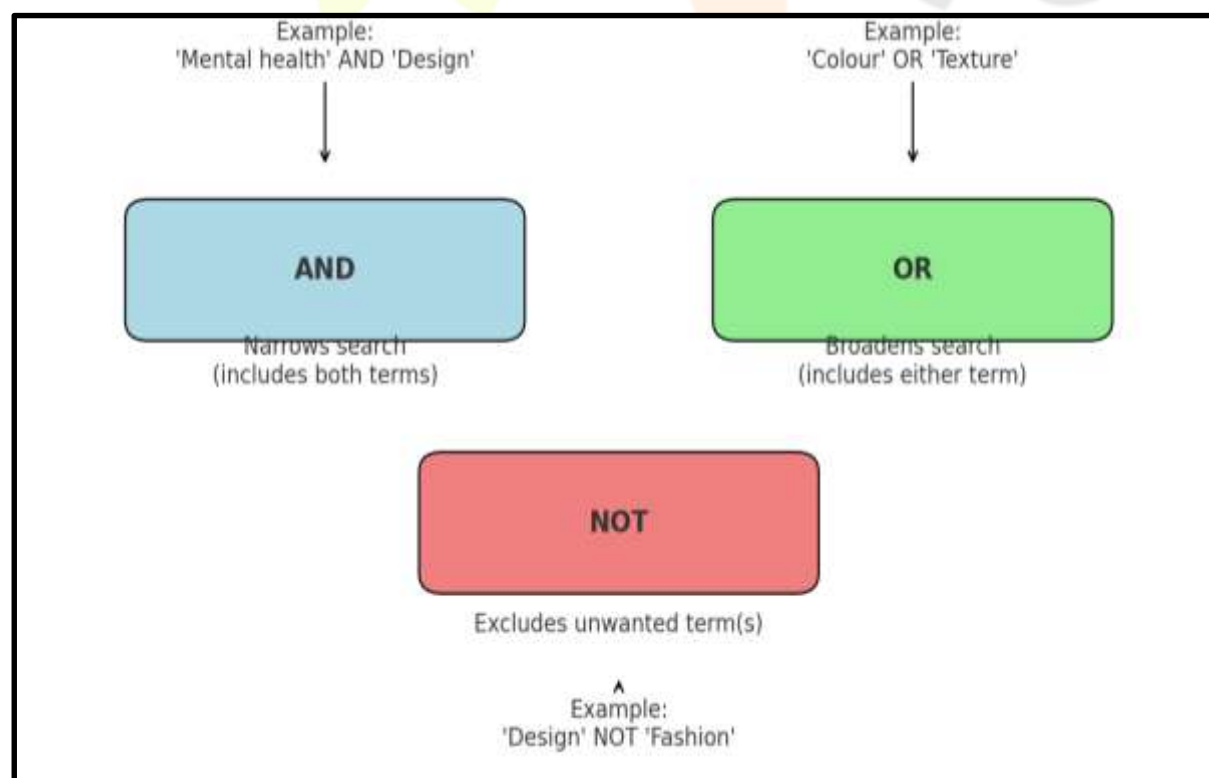


Figure 3.1: Boolean Operator's Flowchart

(Source: Author)

Web retrieval uses Boolean logic to narrow the scope to the point, such as: (Maggie AND design AND colour AND NOT security); and mental AND (layout OR wayfinding) AND healthcare (University of Leeds Library, 2025; University of Sydney Library, 2023). According to Maggie (2020), quantitative indicators and descriptions of the areas are triangulated, and reporting biases are mentioned.

3.5 Data Analysis

The information processing uses **thematic synthesis**, coding architectural characteristics like colour, spacious flow and materiality with respect to psychological results in the secondary sources. The relationship between Maggie as a topic and her Centres suggests that similar contentious locales of relieving stress and embracing inclusion patterns are recognisable, which can be deemed as the contribution of design aesthetics to the quantifiable positive changes in mental well-being.

3.6 Inclusion/Exclusion Criteria

Inclusion ascribes importance to web publications and formal guidance that ascribes mental health results to visual appearance and inclusive healthcare plans. Advice (Estates) on finishes and apertures is updated as a part of the Health Building Note 00-10 in 2023-2024, to inform decisions on the texture of patient-facing rooms, glare, colour contrast, and ligature risk. It seems that strict stylistic remarks are not included, yet curated case reporting is kept in cases where concrete environmental meaning is proven.

3.7 Ethical Considerations

Analytic transparency and sensitivity are observed in the study. Only statistical information of the organisation taken together is mentioned, the number of visits and satisfaction audits, and pictures are accredited (Maggie, 2020; RIBA, 2022). According to NHS England (2023), claims are not clinical and are environmental and are cross-checked with current NHS estates guidance.

4.0 Chapter 4: Findings and Analysis

4.1 Introduction

The discussion suggests that the visual aesthetics are incorporated in a programme and ethos of a centre, to form part of the therapeutic offer. Environmental decisions at Maggie Cancer Care Centres align with the psychosocial model that allows people to arrive at the centre without being referred to it (Maggie, 2024). In 2024, the charity had 327,405 visits in total, of which 51,335 were a first visit, and 355,390 support sessions were provided; 98 per cent of visitors stated that their needs had been met, and 97 per cent stated that their capacity to manage their stress had improved (Maggie, 2024). These results coexist with a design

ideology of soothing readability, no wall clocks, uniforms, or name badges and interventions that are not clinical but domestic in their spaces, which is shared with the analysis below (Maggie, 2024). A caveat is warranted; the indicators are visitor-reported and pertain to supportive care and not acute treatment, but their consistency and scale render them relevant to the connection of aesthetics and wellbeing.

4.2 Theme 1: Colour palettes and emotional balance in Maggie's Centres.

The use of colour at Maggie also indicates invitation and low confidence instead of spectacle. In Southampton (Maggie), ALA created bespoke glazed ceramic walls where the palette of light pastels was selected to enhance stillness and calm; the palette is balanced by a timber roof, and reflective stainless-steel corners that reflect the planted tones into the interior, whereby colour is read through natural textures and not as a separate surface coating (ALA, 2024). The pinwheel scheme, which enables colour to the perimeters of non-formal rooms and the kitchen core without flooding lengthy corridors, is beneficial to orientation without creating an overload of sensory stimulation. The best take, according to AL_A (2024), is that even soft chroma may appear prescriptive in anxious or photosensitive users; the Southampton solution is to allow greens and earths in the garden to dominate the visual field and to limit the higher-chroma moments to minor accents.

4.3 Theme 2: Spatial openness, privacy, and stress reduction

The centres of Maggie privilege a domestic core that has porous borders so that mobility can occur between sociable and secluded spaces as a result of shifting emotional conditions. This logic is reflected in the Royal Free centre by Studio Libeskind with the use of both double- and triple-height glazing to fill the kitchen and circulation with daylight and side-by-side rooms which offer talk, reading and confidential counselling; a roof garden which allows individual exterior departure in an overcrowded hospital campus (Studio Libeskind, 2024). The sweeping, timber-clad shell is meant to be inviting, the free circulation between programme spaces to a preference that is key to stress relief. Nontraditional geometries and fragmented windows are, however, not applauded by the press, suggesting openness needs to be equalised with good views and quiet rooms to prevent visual exhaustion (The Guardian, 2024). Practically, these spaces do their best in situations where staff choreographs thresholds, that is, inviting in the kitchen and protective in counselling, to ensure that the agency remains without exposure.

4.4 Theme 3: Textures, natural light, and sensory comfort

Tactility and light function as primary care resources rather than stylistic effects. In the Royal Free, glazing and worn timber sheathing create the experience of some form of sensory gradient between outside and inside, the use of skylights that can be opened to circulate soft light through the building and bring fresh air to the central stair, aiding relaxation during pacing (Studio Libeskind, 2024). Design coverage highlights courtyards, natural light and warm materials as deliberate techniques for calm atmospheres that contrast with clinical settings (Designboom, 2024). Results data overlap with these options: in 2024, Maggie has 9,998 relaxation attendances and 2,400 visits to her stress-management courses, whereas psychologists have 14,839 sessions, which could only be possible in acoustically and safety-moderating spaces (which Maggie has, 2024). The necessity of maintenance and the danger of glare or overheating due to excessive use of glazing is recognised in a critical lens; it is neutralised by planting, operable openings and strong finishes, but demands commissioning and budget discipline as a continuous process.

4.5 Theme 4: Inclusivity and accessibility for diverse users

The legible layout, settings selection and frictionless access are the methods to achieve inclusiveness. The model of Maggie is accessible- individuals can enter without an appointment or referral; they can decide on the duration of their stay and select an environment that fits them; centres intentionally do not wear a uniform, have no clock or wall signs to eliminate anxieties (Maggie, 2024). In 2024, the network opened the Royal Free centre in north London and increased capacity with an annexe in Newcastle, which facilitated visits to almost 16,000 in that year (Studio Libeskind, 2024; Maggie's Newcastle, 2025). This type of growth proves demand and scales inclusive performance: routes should be played in such a way that they are easily discovered by first-time tourists, disabled individuals (wheelchair users and neurodiverse people), and quiet rooms should be easy to locate without traditional signage. According to Maggie (2024), the mitigations of the model, i.e., staffed welcomes, brief sightlines and a limited inclusion of clearly legible rooms in the kitchen help maintain autonomy, but it would be prudent to conduct user audits occasionally to cover instances when minimal signage or crowded centres may impede privacy.

4.6 Summary

In the latest centres, colour acts as soft orientation, spatial openness is moderated by refuge rooms, and daylight at material contact creates calm, enabling atmosphere that visitors report. These impact numbers in

2024, high volumes, engagement as first-time, and high self-reported benefit align with the architectural strategies as the options to strengthen mental health as a design factor and are quite practical and scalable (Maggie, 2024). Critiques of expressive form and timber and glazing requirements focus on where therapeutic atmospheres rely on how they are articulated, on active stewardship and constant review, as opposed to on aesthetics itself.

5.0 Chapter 5: Conclusion and Recommendations

5.1 Conclusion

In conclusion, this study shows that patient well-being at Maggie's Cancer Care Centres is positively impacted by well-considered architectural and interior design that incorporates biophilic elements, flexible layouts, and inclusive features. Research demonstrates that serene, approachable, and therapeutic surroundings lower stress, improve engagement, and promote mental health, providing scalable approaches for healthcare design globally.

5.2 Study Limitations

Its emphasis may compromise the generalisability of this study on Maggie's Cancer Care Centres in the United Kingdom. Furthermore, the use of secondary literature and qualitative analysis may result in the neglect of quantitative measures of patient well-being and diverse cultural contexts.

5.3 Future Scope

Future research may investigate the influence of visual aesthetics and design on various patient populations in distinct cultural and healthcare contexts. Quantitative research assessing psychological and physiological outcomes, together with the long-term benefits of mental health-supportive design, can enhance evidence-based architecture and inclusive healthcare facilities.

5.4 Recommendations

In order to mitigate all the above issues, some recommendations have been suggested, such as

- To make places that promote mental health better, healthcare designers should use biophilic aspects,
- Helping the patients and staff be part of the design process, using adaptable layouts, and following evidence-based design principles.

These measures ensure that rooms are peaceful, welcoming, and flexible, which is good for patients' health and can meet a variety of demands and changes in the future.

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