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Enhancing Pediatric Patient Satisfaction through Art Installations in Waiting Areas: A Systematic Review

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Abstract

Evaluation of the effect of art installations on patient satisfaction in pediatric waiting area is the goal of this systematic review. Hospital environments and patient experiences can be improved by art installations, which are becoming more widely acknowledged for this. This research aims to investigate how these installations impact pediatric patient satisfaction, reduce anxiety, and foster a pleasant emotional environment by combining the material already in existence. For the benefit of young patients and their families, it also provides best practices for the successful implementation of art installations in healthcare settings. Environmental psychology and art therapy are two theoretical frameworks that are examined in the review in addition to their therapeutic benefits. It also talks about the problems and fixes related to putting these installs into place. This thorough analysis emphasizes the importance of art displays in fostering a more therapeutic and supportive atmosphere in pediatric waiting rooms, offering insightful analysis and helpful suggestions for hospital managers, designers, and legislators.

Keywords: Pediatric Patient, Satisfaction, Art Installations, Waiting Areas, Children.

Introduction

The waiting area experience plays a critical role in patient satisfaction, especially in pediatric settings where children and their families often face heightened levels of stress and anxiety. In these environments, the design of the waiting area can serve as more than just a functional space—it can be a therapeutic environment that significantly alleviates negative emotions. This is particularly important in pediatric care, where the emotional well-being of young patients is closely tied to their overall health outcomes. Research has increasingly recognized the potential of art installations, such as sculptures, murals, interactive displays, and digital art, to transform these spaces. Art can serve as a powerful tool to create a more comforting and welcoming atmosphere, distracting from the clinical setting and providing psychological benefits. The atmosphere of the waiting area in pediatric hospitals is thus not only a key factor in patient care but also crucial in shaping the overall experience and satisfaction of patients

and their families. Given the rising concern over the impacts of prolonged waiting times and unwelcoming environments on young patients, there is a growing trend toward incorporating art installations in hospital design. This approach aims to reduce anxiety and enhance the overall patient experience, highlighting the need for further exploration of how art can be effectively integrated into healthcare environments.

Objective

This systematic review's main goal is to assess how art installations affect young patients' pleasure in waiting rooms. This review attempts to determine best methods for planning and executing these installations to optimize their beneficial effects by combining recent studies. The evaluation will also look at how various art installations, including digital art, interactive displays, murals, and sculptures, can affect patients' mental health and satisfaction. Additionally, the review aims to comprehend the precise processes by which art installations reduce anxiety and improve the hospital stay for kids and their families as a whole. Evaluating the practical difficulties of putting art works in hospital settings, such as financial limitations, upkeep concerns, and stakeholder involvement, is another important goal. The assessment seeks to address these issues and offer practical suggestions for hospital managers, designers, and legislators. The ultimate goal of this research is to help pediatric hospitals create waiting areas that are more therapeutic, encouraging, and visually beautiful in order to enhance patient care and improve health outcomes.

Literature Review

Environmental Psychology and Patient Well-being

Ulrich's theory of supportive design, which highlights the value of a supportive physical environment in lowering stress and encouraging healing, serves as the theoretical basis for this review (Devlin & Andrade, 2017). Ulrich claims that by fostering a sense of peace and security, surroundings with features like views of the outdoors, suitable lighting, and artistic installations can greatly improve patient well-being (Iyendo et al, 2016). The attention restoration theory developed by Kaplan, which suggests that mental tiredness and cognitive function can be lessened by exposure to creative and environmental aspects, is also pertinent today (Kaplan et al, 2019). These theories highlight how art installations might have a good effect on pediatric patients' emotional and psychological well-being while they are waiting (Isles et al, 2010).

Art Therapy and Healing

The fundamentals of art therapy emphasize the therapeutic benefits of creative and artistic interventions for kids, including lowering anxiety and elevating mood (Perry, 2014). By providing visual stimulation and diversion, art installations can work as passive types of art therapy, reducing stress and promoting feelings of security and tranquility (Mattiuz et al,2024). Hospitals can develop waiting areas that are both entertaining and beneficial to young patients' psychological well-being by incorporating elements of art therapy into their design (Jiang, 2020).

Historical Context and Evolution

Over time, there have been significant changes in how art is used in hospital settings. Early examples mostly consisted of simple murals or decorative elements, whereas contemporary techniques include a wide range of artistic interventions, including digital art, interactive

displays, and immersive settings (li & zhu, 2024). This evolution reflects our growing comprehension of the significance of aesthetic and psychological factors in patient care (Maclagan, 2001). The transition from straightforward décor to elaborate installations demonstrates how our knowledge of the function that art can have in fostering a healing environment is expanding (Bell, 2019).

Types of Art Installations

Healthcare environments use a variety of art works, each with a unique purpose to improve the patient experience (Bate & Robert, 2023). Large-scale, vivid images that are created by murals can change the area and make it feel cozier (Lepik, 2010). Children are drawn in by sculptures and interactive displays, which provide tactile sensations that can be both entertaining and instructive (Roussou, 2004). Young patients can be particularly well-attracted to and engaged by digital art, including interactive screens and projections, which can provide dynamic, mood- and theme-appropriate imagery (Warlaumont, 2010).

Impact on Children and Families

Studies reveal that the emotional and psychological health of young patients and their relatives can be profoundly impacted by art installations (Fancourt & Finn, 2019). According to studies, these installations can lessen anxiety, elevate mood, and increase patients' general happiness with their hospital stay (Finkel, 2014). Families who live in homes improved by art also report feeling less anxious and more at ease (Armstrong & Ross, 2022). Engaging and visually interesting art can make a waiting period that might normally be unpleasant into something more pleasant and reassuring (Anderson, 2011).

Installations Design Considerations

Several case studies provide thorough descriptions of art installations in pediatric waiting rooms along with their outcomes (Isles, 2010). For instance, after introducing interactive art pieces and a sizable mural, a children's hospital noted a notable increase in patient satisfaction ratings and positive feedback from both patients and staff (Ullan & Belver, 2021). An further example is a hospital that added digital artwork, which resulted in less agitated waiting areas and lower wait times. These case studies provide tangible benefits of art integration in medical settings and serve as models for other organizations.In pediatric settings, age-appropriateness, safety, cultural relevance, and interactivity are critical design factors for art installations (Flisch et al., 2023). It is crucial to make sure the artwork is interesting and appropriate for kids of different ages, safe for social interaction, inclusive of different cultures, and able to pique viewers' interest and curiosity (Douglas & Jaquith, 2018). In order to guarantee that the installations maintain their aesthetic appeal and functionality throughout time, the design should also take durability and maintenance into account (Moghtadernejad, 2013).

Implementation Strategies

Pilot testing, continual assessment, and stakeholder interaction are all components of successful implementation techniques (Wolfenden et al, 2020). Involving patients, healthcare professionals, and artists in the design process guarantees that the installations satisfy everyone's requirements and interests. Before a wider rollout, pilot testing can assist in identifying any problems and improving the installations. Maintaining the efficacy of the installations and resolving any new issues require ongoing assessment and feedback loops.

Healthcare institutions may make sure that these creative interventions accomplish their intended effects and contribute to a more therapeutic and supportive environment for pediatric patients by including stakeholders throughout the process and routinely evaluating the impact of the installations (McKeever et al, 2013).

Methodology

A number of databases, including PubMed, Scopus, and Google Scholar, were used to search the literature. The aforementioned databases were chosen based on their broad coverage of medical and multidisciplinary research, a vital component of any thorough analysis of the effects of art exhibits in pediatric waiting areas.

Table 1
Keywords Database and Information For Search Strategy

Database	Keywords
Google Scholar	[Satisfaction of pediatric OR Pediatric waiting area] AND [Pediatric waiting OR Pediatric waiting room]AND [Art installation]
Scopus	[Installation design OR Art design] AND [Waiting area design OR art installation]

Selected Search Terms

The search terms and combinations used to identify relevant studies included "pediatric waiting area," "art installations," and "patient satisfaction." These terms were selected to capture a broad range of studies addressing the core components of the review.

Inclusion and Exclusion Criteria

According to the following criteria, studies were accepted:

a. Applicability to the study topic assessing how art installations affect pediatric patients' satisfaction.

b.Publication date within the previous 20 years to guarantee findings that are up to date and pertinent.

c. Research design, encompassing mixed-method, qualitative, and quantitative studies to offer an all-encompassing perspective on the subject.

Among the exclusion criteria were:

a.Research concentrating on adult patients or unrelated facets of medical settings.

b. Grey literature and non-peer reviewed publications to guarantee the caliber and dependability of the included studies.

Analysis Methods

For the purpose of analyzing the extracted data, thematic analysis was used for the qualitative data and meta-analysis for the quantitative data (Timulak, 2014). Finding recurring themes and patterns in qualitative research enabled a synthesis of results about the psychological and emotional effects of art installations through the use of thematic analysis. In order to compile findings from several research and evaluate the overall effect of art installations on patient satisfaction using statistical methods, meta-analysis was used for quantitative data (Victor et al, 2023).

Combining these techniques allowed the research to highlight both the qualitative and quantitative results, offering a comprehensive perspective of how art displays impact pediatric patients and their families (Leavy, 2020). The identification of best practices and implementation strategies for improving pediatric waiting areas through art exhibits was made easier by this thorough analysis technique.

Results and Discussion

Numerous studies' quantitative data showed a considerable decrease in anxiety measurements and a rise in satisfaction ratings. Table 2 presents the results of these analyses.

Table 2

Impact of Art Installations on Patient Satisfaction and Anxiety Reduction (Rosenberg et al, 2014; Welch, 2010; Lankston et al, 2010; Vetter et al., 2015)

Study	Year	Type of Installation	Satisfaction influence	Anxiety Influence
Laursen et al.	2014	Murals	Positive	Decrease
Welch	2010	Interactive	Positive	Decrease
Lankston et al.	2010	Sculpture Garden	Positive	Decrease
Vetter et al.	2015	visual art	Positive	Decrease

Emotional Responses and Therapeutic Effects

Positive emotional reactions to art displays were recorded by children and their families, including emotions of joy, serenity, and anxiety diversion. These answers made the waiting experience more enjoyable and created a friendlier, less stressful atmosphere. It has been discovered that art installations provide therapeutic benefits, including mood enhancements and the perception of shorter wait times. These advantages highlight how crucial it is to include art in pediatric healthcare settings as a non-invasive way to improve the general patient experience.

Proposed Solutions

There are a number of obstacles to implementing art displays in pediatric waiting spaces, such as limited funding, upkeep concerns, and staff or administration resistance to change. These difficulties may make it more difficult for art installations to be sustainably integrated into hospital environments (Verderber, 2010). A culture of acceptance through staff involvement and education, the creation of thorough maintenance plans, and the acquisition of specialized funds are among suggested remedies for these problems. Involving stakeholders early on in the planning and execution phase can also lessen opposition and guarantee that the installations satisfy hospital community needs.

Theoretical and Practical Implications

The results of this study highlight the significant role that art installations can play in enhancing well-being and reducing stress in pediatric patients. This finding aligns with established theories in environmental psychology and art therapy, such as Ulrich's supportive design theory and Kaplan's attention restoration theory, which emphasize the therapeutic potential of thoughtfully designed environments. The study's implications are far-reaching, offering valuable insights for hospital executives, designers, and policymakers. By integrating art exhibitions into pediatric waiting rooms, healthcare facilities can create more inviting and

calming atmospheres that contribute to better patient experiences and outcomes. These improvements not only benefit the well-being of young patients but also enhance the reputation and effectiveness of medical institutions, making this an essential consideration for those involved in healthcare design and management.

Significance

The significance of studying art installations in pediatric waiting areas cannot be overstated. In an environment where stress and anxiety are prevalent, particularly among young patients and their families, the incorporation of art has been shown to offer tangible psychological and emotional benefits. This research underscores the importance of such interventions, demonstrating that art installations can play a critical role in transforming clinical spaces into more therapeutic and supportive environments. The benefits extend beyond just the patients; families, caregivers, and healthcare staff can also experience reduced stress and improved mood, leading to a more positive overall atmosphere. For healthcare practitioners, the findings of this study provide a clear rationale for integrating art into their facilities, as it not only enhances patient care but also contributes to the institution's overall mission of providing compassionate and holistic healthcare. Furthermore, this research highlights the potential for art installations to be a cost-effective way to improve patient satisfaction and well-being, offering a valuable tool for healthcare facilities to achieve better outcomes with relatively low investment.

Limitations of the Review

Potential biases in the chosen studies and restrictions on the search technique, such as database selection and language constraints, are examples of the methodological limitations of this review. These elements might have had an impact on how thorough and broadly applicable the results were.

Gaps in the Literature

The body of research on the long-term consequences of art installations and the effects of various forms of art on different patient populations is lacking. To close these knowledge gaps and offer a more comprehensive understanding of the advantages of art in healthcare settings, more study is required.

Future Research Directions

Subsequent investigations ought to concentrate on longitudinal analyses to appraise the enduring consequences of art installations, in addition to comparative analyses to appraise the influence of diverse forms of art on pediatric patient contentment. Furthermore, studies should look into how context and culture affect how effective art installations are.

Conclusion

This systematic review highlights the beneficial effects of art installations on pediatric patients' happiness in waiting spaces. Art can elevate the overall patient experience, lessen anxiety, and boost mood. These findings reinforce the notion that art can be a valuable addition to pediatric healthcare settings. It is recommended that healthcare practitioners consider adding art installations to pediatric waiting rooms and conduct additional research on the subject. By doing so, medical facilities can foster more therapeutic and supportive environments that improve the well-being of pediatric patients and their families.

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