



Examining the therapeutic potential of visual art in clinical settings: a review

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Abstract: One of art's key properties is its ability to transfix viewers to let them get lost in the piece. Because of art's aesthetically pleasing values and its ability to serve as a positive distraction, art has great potential in clinical settings. Hospitals are often viewed as bleak institutions that are innately stressful. Art can brighten the hospital atmosphere and positively increase the experience of patients. This review assesses the literature surrounding the therapeutic potential of various types of visual art in clinical settings. More precisely, this review examines differential effects of visual art exposure based on genre of visual art as well as age and sex of patients. Further research on art in hospitals is necessary to improve the visits of millions of patients to hospitals.

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Introduction

Art, while conventionally thought as simple decorations to a space, can be a powerful tool in establishing a more welcoming clinical environment and reduce patient stress (1). Hospitals are typically viewed as bleak environments. Art can serve as a therapeutic tool in hospitals to help create an overall better setting for patients in hospitals as well as serving as a distraction from the patients' current brooding problems. In addition, it can also help lighten the atmosphere of various hospital public spaces, including waiting rooms or in doctors' offices. This literature review will assess the current pool of evidence surrounding the various uses of different types of art in hospitals to examine whether patients find an improvement in their hospital visit experience. The literature will only focus on visual art in hospitals. While there are other forms of art that are considered therapeutic (music and theatrical performances), visual art remains the most accessible and common way for hospitals to affect the hospital atmosphere.

Methods

The review conducted is a systematic literature review of articles within the PubMed/MEDLINE database. Search terms used included the keywords "art" "visual art" "design" "health" "hospitals", and "wellness". Articles that were included discussed differential effects of visual art exposure based on genre of visual art as well as age and sex of patients. Review articles were excluded. Studies that were reviewed used quantitative and qualitative methodologies. Quantitative methodologies are those that employ numbers and statistics to identify and explain problems, trends, and results. Qualitative methodologies are those that explore and define problems, trends, and results without utilizing discrete quantities and statistics.

Results of studies

Different art genres have varying effects on adults

Patients in hospitals experience intense levels of stress that

can have physiological and behavioral consequences. It is paramount that hospitals recognize the effect positive design choices can have on patient stress levels.

Ulrich reports that the type of art hung in hospitals can greatly affect patient moods, citing a small-scale study he had conducted in a Swedish psychiatric ward (1). In the ward, patients commented negatively on the abstract paintings hung on the walls (1). A group of patients even attacked a group of non-representational, abstract painting, tearing the paintings and smashing the frames (1). On the other hand, the patients responded positively on art depicting nature scenes (1).

Ulrich also reports that the type of art hung on walls also has effects on postoperative anxiety (1). In a prior study, Ulrich reports that patients that had undergone open heart surgery had significantly less postoperative anxiety when exposed to nature pictures as compared to abstract pictures or no pictures (1). Interestingly, Ulrich also reports that patients exposed to abstract pictures had more postoperative anxiety as compared to patients with no picture; this means all types of art may not have therapeutic effects (1).

Different art genres have varying effects on children

In 2008, a team of researchers published a landmark study on the effects of art preferences on children that were hospitalized (2). The researchers split their art collection into six groups: “Abstract, chaotic; Abstract, with strong color; Abstract, with animal; Impressionistic; Abstract, calm color; and Representational, nature” (2). The researchers split the study into three phases (2). The first phase involved the art that regular schoolchildren preferred. The second phase involved the art that hospitalized children preferred (2). The third phase involved the art that pediatric patients thought would most reduce their stress (2).

In phase 1, 129 children (62 males, 67 females) were shown the six different artworks and asked to evaluate each based on their individual preferences (2). Phase 2 of the study was a randomized trial that took place in two hospitals (2); 48 participants (24 males, 24 females) were enrolled in this phase. Again, patients were shown the six different art images and evaluate their favorites (2). Phase 3 of the study was a randomized, controlled trial that took place in hospital rooms (2) and contained 78 patients (36 males, 42 females) pulled from two hospitals. In two-thirds of the rooms, one representational and one abstract picture was placed (2). In the other third of the rooms, no image was placed (2). Researchers took various health-

related measurements in the hospital rooms before and after exposure to art to quantitatively measure the effect of art on the patients (2).

In phase 1, most of the children were found to prefer representational nature images (2); 50% of the children ages 5–7, 70% of the children ages 8–10 preferred the representational nature image, 70% of the children ages 11–13, and 50% of the children ages 14–17 all preferred the representational nature image (2).

In phase 2, representational nature scenes were also rated significantly higher than the other categories of art (2). Impressionistic images were quite popular on average with all age groups as well, and complex abstract images were extremely popular with the 5- to 7-year age group (2). The least squares mean difference for representational nature artwork was significantly higher than all the other genres of art as well, ranging from 54.17 to 69.23 (2). Both female and male children clearly favored representational nature scenes as well (2).

In phase 3, the researchers noted that males were affected more beneficially by nature art scenes than females (2). Other than this finding, there were no key significant findings in psychophysiological differences between the three age groups before and after exposure to art (2). The research team notes that this could be since patients were exposed to art for two hours, which might dilute any significant differences (2). The research team claims a smaller exposure time (10 minutes) could produce differential results before and after exposure (2).

Pediatric patients overall clearly prefer representational nature scenes over abstract images, as evidenced by the results of phase 1 and phase 2 (2). However, the results of phase 3 suggest that these results might not be clinically translational with pediatric patients in reducing stress (2).

Though the results from phase 3 were largely inconclusive, studies between art and children have convinced children’s hospitals to adopt art collections. Recently, the Lucile Packard Children’s Hospital of Stanford University decided to include a large collection of art from their hospital (3). The hospital’s collection “ranges from a 30-foot kinetic sculpture of the hospital’s ‘leaping Lucy’ logo” “to 2-inch glass figures of hummingbirds, fish and other species outside the hospital’s Sanctuary” (3). The hospital also states that “*Framed art hangs in each patient room, and on the first floor, a richly colored panoramic California ecosystem mural with interactive features teaches children about the state’s diverse wildlife*” (3). Art collections are clearly an important part of the pediatric patient experience.

The experience of patients in Cleveland Clinic

In 2014, Cleveland Clinic, completed a survey on 4,376 patients regarding their experience with the art installed in their main campus (4). The patients were mostly female (63.7%) and mostly Caucasian (93.9%) (4). Most patients were older, with the majority of ages 55–64 (36.3%) and 65+ (30.7%) (4). While the study is conducted in a large institution, the patients are not generally representative for most hospitals in the United States, which might create significant bias in the results. The patients that were recruited had to respond “yes” to an initial question asking whether the patients noticed the artwork in the Main Campus before they were able to answer further questions (4). The survey consisted of “qualitative, quantitative, and open-ended questions” with quantitative questions employing a “5-point Likert scale” and qualitative questions employing an “anchored scale” (4). Out of the original 4,376 patients, 826 people met the required criteria for the study, as they were the only patients who responded that noticed the artwork and were capable of suitably answering questions (4).

The results of the study prove the effectiveness and necessity for more art in hospitals. Most of the patients that responded in the study stated that the atmosphere and environment of the hospital was “Inviting and calming” (4). Furthermore, a majority (73%) of the patients with a variety of mental conditions including “Panic Disorder, Hypertension or High Blood Pressure, Breast Cancer, Post-traumatic Stress Disorder”, and “Generalized Anxiety” all experienced a slight or significant improvement in their mood (4). 61% of patients with these same disorders said they experienced a slight or significant improvement in stress levels as well (4). While not a majority (39%), a significant number of patients also felt that art helped reduce their pain or improve their comfort levels (4). A piece that many patients enjoyed was *Mike Kelley 1* (4). This art installation is a video projection of a tree changing through the seasons, and many patients spend time observing this tree that constantly changing (4). These results indicate how powerful art can be in shaping patient experiences in the hospital and how art has clear therapeutic potential.

While this study illustrates how effective art can be, it is limited in terms of its patient population and its study design. An unusually large amount of the patients is Caucasian, which does not reflect the makeup of the patients of a significant amount of American hospitals. The fact that most of the patients were older, Caucasian women

is due to the demographics of the patient population surrounding the hospital area. In addition, the study consisted of a survey, so the patient’s responses could not be directly recorded by a third party. Rather, the experiences were self-reported after they happened, which could lead to biased responses. Furthermore, the patients were responding to the art collection of one hospital. Patient responses could vary based on the individual art collections of different institutions.

Looking beyond representational versus abstract art

A pioneering study led by researchers in Aalborg University in Denmark published data that suggested therapeutic potential for abstract, non-representational art (5). The first part of the study was completed in five medical wards in Jutland, Denmark (5). The second part of the study took place in 14 patient rooms in Regional Hospital of Glostrup, Denmark (5). The patients were between 41 and 91 years of age, with the average patient aging 62 (5).

In Case Study 1, the researchers had the patients rank 20 figurative paintings from most favorite to least favorite (5). These paintings were used for further experiments, including presenting no art for the first week then art for the second week and interviewing patients about the art (5). In Case Study 2, the researchers hung nine abstract paintings and 1 figurative painting in fourteen patient rooms (5). The researchers then interviewed the patients in the rooms and also performed EEG tests and eye-tracking tests (5).

The results of the experiment indicated that abstract art could be used for therapeutic purposes (5). Qualitative analysis of the interviews from case studies 1 and 2 show positive comments about both figurative and abstract art, with several experiential domains of well-being identified in statements from patients in both studies (5). The EEG and eye-tracking tests in Case Study 2 “showed the viewing of abstract art to involve less demanding information retrieval, memory-related cognitive processes and less mental engagement by test subjects than the figurative” (5). Abstract art is therefore processed differently by patients. Nonetheless, both abstract and figurative art showed signs of well-being in patients, which means both types of art have clear therapeutic use in hospitals and clinics.

Discussion

Art has real therapeutic potential to ease the stress and

worry of patients in hospitals. Even though the effect may be minimal, there are measurable beneficial physiological consequences of exposure to artwork. Art can be a positive distraction for patients, and art can contribute to the innately bleak environment of hospitals.

The first and second study extrapolated that adults could benefit from nature-focused art. The third study focused on the therapeutic effects of art on the Cleveland Clinic population. The last study focused on breaking down the stereotype that abstract art could not have beneficial uses in the hospital setting.

In a transcribed interview, one hospitalized patient said about abstract art that “*It’s really nice that it’s here (the artwork) ... It lives up in a way. For me it’s just squiggles, but it’s nice that it’s here instead of just white walls. Colours give a different whim... It also means that you can sit and take a look at it and zone out... Yesterday I sat in the bed and knitted and looked at it a bit... I just sat and dozed and dreamed of something else... it gave me a little peace... it was also the first impression I had when I came into the room—that it included art and had a lovely atmosphere.*” (5).

Clearly art contributes positively to the hospital atmosphere, and artworks such as *Mike Kelley 1* in the Cleveland Clinic can give a chance for patients to simply sit back, stare, and reflect (4). Art in hospitals is important because it can serve as a much-needed distraction for patients. Patients can get lost in the artwork and not the problems they are currently facing, which can provide much needed relief for patients that are struggling. From these studies, we learn that different art has varying effects, and we can learn that art can contribute to an overall positive environment in hospitals by intentionally creating distractions and lightening the area.

The papers in this literature review have patient groups that differ in duration of hospital stay, sex, and age. Further research is necessary to qualify the differential effects observed of visual art on different patient groups.

The author is accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Footnote

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