



Is visual art relevant in medical school buildings?

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Abstract

Aim: The aim of this project was to determine if visual art serves a purpose in medical teaching establishments, particularly in hospitals and medical schools, or if it is largely invisible. **Methods:** After a literature review revealed a lack of robust or extensive evidence on the effects of displayed art in buildings that comprised medical schools, a questionnaire was distributed opportunistically to the students attending lectures or clinical skills training and to the staff at their offices in the Aberdeen University Medical School. The questionnaire sought to evaluate the effect of the art installed at the newly built Suttie Centre, an integral building of the Aberdeen University Medical School, on staff and students using the building. **Results:** Of 75 questionnaires distributed, 52 were returned complete in all respects. Most respondents agreed that the artwork was appropriate and aesthetically pleasing for the medical school, and helped enhance the ethos of learning. **Conclusion:** The literature review, though scanty evidence is available, is backed by questionnaire responses to show that art serves to epitomize the ethos of a medical institution. A medical school with a 'soulless environment' is less likely to enable students and staff to learn and work to their best potential. Subjective opinions regarding which artworks to display and qualms about the costing of artwork and prioritization of money must be considered; however, overall, visual art seems to have a place in medical school buildings.

Keywords: Art; Medical education buildings; Medical humanities; School, medical; Sculpture; Visual art.

Introduction

There is recognition, historical and current, of the positive influence of art on patient well-being. In 1849, Florence Nightingale recorded the benefits in her

'Notes on Nursing'.^[1] Famous physicians of the past also incorporated visual art into their practice. For instance, Charcot drew and photographed patients as well as observed Medieval paintings in

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hospitals in order to find evidence for the syndromes he documented.[2] An artist who was a cancer patient at the Beaston Hospital in Glasgow, Hamish MacDonald, also commented on the power of art to help those who were suffering.[1] There seems, however, to be a lack of literature available on the relevance of displayed art in medical schools, a hugely important medical institution, and of its impact on the students and staff who populate such buildings.

Through reviewing previous evidence on the relevance of art in hospitals, and on the role of visual art in medical education, and then by assessing the response of staff and students to art at the new University of Aberdeen Medical school building (Suttie Centre), we hope to bolster the argument in support of displaying art in medical institutions.

Methods

The Suttie Centre opened in 2009 and is the main venue for medical teaching and learning at the University of Aberdeen's medical school. It houses large lecture theatres, anatomy dissection labs, and clinical skills teaching areas and is used regularly by undergraduate medical students. To gauge the responses of staff and students to the three commissioned

pieces of art displayed at the Centre (Figures 1-3), a questionnaire based approach was used. It was confirmed with the Grampian Ethics Committee that ethical approval was not required for the use of these questionnaires.

This was a project for a student elective - since the time was limited, there was no formal sample size calculation for the numbers of questionnaires to be distributed. It was considered that, in the time available, anywhere between 75-100 questionnaires would be adequate for this qualitative study. The questionnaires were distributed opportunistically by the first author to the students attending lectures or clinical skills training and to the staff in their offices. The need for the study and the methods were explained and return of completed questionnaires was considered as consent to participate. The questionnaire items are shown in Box 1. The data was analysed using proportions for dichotomous responses and the open-ended data is presented as quotes.

Results

Eventually, 75 questionnaires were distributed to staff and students who used the Suttie Centre; 52 were completed and returned (response rate 69.3%), of which 26 were from staff and 26 from students. When individuals were



Figure 1
"The Patient"
Oil on Panels 213 x
366 cm by Joyce W.
Cairns



Figure 2
 "Hippocratic Oath"
 Light sculpture by Ron Haselden

Randomly scrolling bars of light, each differently colored, reveal fragments of the Hippocratic Oath.



Figure 3
 "Doctor-Patient"
 Sculpture by Marilene Oliver

Box 1

Questionnaire items for staff and students using the Suttie Centre

1. Why do you visit the Suttie centre?
2. What artworks have you noticed in the Suttie Centre?
3. Do you feel the art in the Suttie Centre:

| | |
|---|----------|
| a. is aesthetically pleasing? | (Yes/No) |
| b. is morale boosting? | (Yes/No) |
| c. contributes to the learning environment? | (Yes/No) |
| d. has negative effects? | (Yes/No) |
4. Do you feel the Suttie Centre would be a less appealing place without art?
 (Yes/No)
5. Do you think the artworks in the Suttie Centre are appropriate for a medical school?
 (Yes/No)
 If you answered 'No' to this question - why is that? What would you prefer?
6. What two things do you like the best about the art in the Suttie Centre?
7. What two things do you like the least about the art in the Suttie Centre?

questioned about why they visit the Suttie Centre, answers ranged from it being their place of work, to them attending meetings, teaching, studying, using the computer room, and for coffee and lunch breaks. Most respondents could identify one, two and sometimes all three of the commissioned artworks illustrating that visual art is not disregarded in this school. Some individuals were also observant of a Mathew Hay piece of art on the front glass door and paintings and poetry on other floors.

The table details the results from the dichotomous questions. Most respondents felt that the artwork was aesthetically pleasing, made the building more appealing, and contributed to the learning environment, while half believed it to be morale boosting. Almost all of the respondents felt that the artwork was appropriate for a medical school and only a few experienced negative effects of the specific artworks displayed.

Participant responses to the open-ended questions are shown in Boxes 2 and 3. Several individuals responded with what they liked about the artwork (Box 2); however, fewer listed things that they did not like - there were many who responded with ‘Nothing’ and ‘I can’t say that I have any negative feelings about it’.

Three members of the Art Group committee were contacted by the first author for their views; they were in support of the necessity of art in medical schools, believing that the environment ‘focuses the mind’ and that if you are in a building where the visual environment has been given importance, then that must mean the people who have set it up must have cared about the building and that it turn must mean they care about the people in the building. Even during the design process of the building, one of the main considerations was how it would be ensured that the building ‘felt

Table: Results from the dichotomous questions asked of a sample of staff and students who use the Suttie Centre (n=52)

| Questionnaire item | Staff who gave affirmative response N=26 N (%) | Students who gave affirmative response N=26 N (%) |
|--|--|---|
| With respect to the artwork in the Suttie Centre: | | |
| Do you feel that it is aesthetically pleasing? | 24 (92) | 20 (77) |
| Do you feel that it is morale-boosting? | 14 (54) | 12 (46) |
| Do you feel that it contributes to the learning environment? | 17 (65) | 13 (50) |
| Do you feel that the art has negative effects? | 1 (4) | 2 (8) |
| Do you feel the Suttie Centre would be a less appealing place without art? | 21 (81) | 20 (77) |
| Do you think the artworks are appropriate for a Medical School? | 25 (96) | 25 (96) |

like the spiritual home of our students' as opposed to just any building.

Discussion

The use of art in hospital settings

In Scotland, the main body of evidence in favor of displaying art in hospitals is found through evaluation of the effects of visual art in three of Scotland's newest hospitals: the Royal Infirmary of Edinburgh which opened in 2003, Stobhill Hospital, and the Victoria Infirmary in Glasgow both of which opened in 2009. Overall, it was gleaned that art is viewed positively by patients

and staff.[1]

The impact of art on health outcomes has also been studied; for instance, Ulrich investigated the effects on patients recovering from open-heart surgery of exposure to one of the following: an image of nature, an abstract image or no image.[3] Patients exposed to images of nature experienced less post-operative anxiety than either of the other two groups and were more likely to switch from strong analgesics to weaker pain-killers during their recovery. Those exposed to abstract images experienced more anxiety than those with no image,

Box 2

Participant responses to the open-ended question: What two things do you like the BEST about the art in the Suttie Centre

'The art is medically related.'

'It is modern.'

'Makes the place feel less clinical.'

'Adds a humane touch.'

'Minimalist and meaningful.'

'Encompasses clarity and color.'

'Thought provoking.'

'I enjoy the sick patient (painting) upstairs - you could look at it for hours and find something you hadn't noticed before. It provokes conversation and debate about many aspects of Medicine - which enhances learning.'

'The art is fairly thought provoking, especially the painting on the first floor (of the patient). The image of the vulnerable hypoxic patient lost amidst a crowd of overzealous healthcare professionals seems to reinforce the moral responsibility that comes with the job.'

'It is such a huge building with very large areas of open space therefore the artwork fills in these spaces making it a nicer environment to work in.'

'Your ideas of a particular artifact may change over time.'

'The 3D body scan is excellent makes you wonder how they made it. I think it improves the atmosphere and marks the place as somewhere with thought behind it.'

'I am always drawn to the piece at the back wall (the light installation of the Hippocrates Oath). The colours often draw me in when I walk in.'

'...money for the NHS comes from taxation and not everybody agrees it is right to spend money on art. In our present situation we really have to kind of agree. But art and aesthetics is really a bigger part of life than that.'

Box 3

Participant responses to the open-ended question: What two things do you like the LEAST about the art in the Suttie Centre

'The sick patient painting is somewhat depressing.'

'Not morally uplifting.'

'Lack of enough art.'

'May be some non-medical art would be nice.'

'I don't know what the cost of art is but I wouldn't want for the sake of having these pieces that it has removed funding for something else.'

'It can be a contentious thing, art in medical buildings, because people on occasion will question how much was spent on a particular artwork and whether that was money that might have been used in some clinical area.'

demonstrating that, contradictory to views which may prevail among contemporary artists, the positive distraction and state of calm conveyed through landscape and nature scenes was preferred by patients.

A randomised controlled study confirmed the positive impact of visual stimuli on health outcomes, by demonstrating that a soundless video displaying natural scenery significantly increased both pain threshold and pain tolerance compared to viewing a blank screen.[4] Another randomised clinical trial included patients undergoing flexible bronchoscopy, with the intervention group experiencing improved pain control and reduced anxiety due to distraction therapy with nature sights and sounds.[5]

With regard to cancer care, visual art has been found to greatly diminish levels of anxiety and depression among patients undergoing chemotherapy treatment.[6] A questionnaire based study at a transplant clinic in Dumfries revealed that artworks displayed in the area contributed positively to patients' outpatient experience, with distraction from the reason for being in hospital being cited by patients as one of the factors for this positivism.[7] Furthermore, patients expressed a preference for landscape and

nature scenes (84%) as opposed to abstract art (27%). In terms of mental health, wall murals over an exit door acted as a distraction, contributing to a change in behaviour of patients with dementia, with a significant decrease in patients' agitation, an improvement in keeping patients away from situations of potential harm, and in them feeling less institutionalized.[8]

The Exeter Health Care Arts Project aimed to evaluate, through questionnaires to users of the building, if artworks enhanced the morale and hence the healing process.[9] Forty-three percent of front-line clinical staff believed that the arts had a positive effect on healing and twenty-four percent considered that the arts improved clinical outcomes. This project brought out the difference between the viewing of art in a medical setting versus art being displayed purely for exhibition in galleries. Despite the hospital street being used as an exhibition gallery, not everyone was convinced of its utility. The hospital setting could be very busy at times, the natural and artificial lighting was variable and often unsuitable for viewing artwork, and viewing distances were limited. This analysis could also be extended to the implications of viewing artwork in other medical buildings.

The use of art in health professions' education

Visual art can be considered in another context, in terms of its use in medical education to hone the observational and diagnostic skills of future doctors. The Dalhousie Medical School in Canada, in the early 90s, demonstrated the value they placed on visual art by hiring their first ever artist-in-residence, Verle Harrop - they had decided to make a move away from didactic teaching methods and to introduce the learners to the medical humanities with an emphasis on broader humanistic issues.[10]

Students at Yale Medical School can participate in a voluntary programme, examining paintings at the Yale Centre for British Art.[2] Different artists' work is analysed, with subject matters ranging from landscapes to human figures. Similarly, at the University of Texas Medical Branch in Galveston, examination of representational art has been used to improve medical students observational and descriptive skills.[11] The art studied encompassed pieces from Rembrandt, Rubens and Gericault. The School of Nursing at Kent State University also combined the visual arts and education through assigning nursing diagnosis to individuals portrayed in paintings by artist such as Picasso and Segal.[12] Art offers a subjective insight into human existence, in contrast to the objective study of the human body in Medicine, reminding healthcare professionals that they are treating a person. It enhances learning and promotes empathy to bear witness to suffering. Also it gives them the opportunity to pursue creative outlets, thus preventing burnouts and improving personal satisfaction.[12-16]

Art in teaching has also been incorporated into nursing education where painting has been used to promote self-awareness and the understanding of

other people's experiences.[17] It was found that the use of art allowed students to think meditatively about their practice, considering not only their own feelings but also those of others. It importantly put forward the argument that nursing work, similar to medical work, is at risk of being too objectified, with everything required to have an answer; however, the human elements of care cannot be objectified and art as a learning vehicle encourages an authentic, meaningful style of thinking.

Researchers argue that Medical Schools would benefit from creating ties with local artists and museums to strengthen aspects of medical learning for students, for example, to better visualize the body.[6] Both the Kings College Hospital and the Leicester Warwick Medical School have a visual arts course as a special module in their curriculum. Evaluative comments from students has shown that they consider their personal and professional development to have been enhanced through studying art and that they would like to continue to use the visual arts in the future.[6]

The utility of displaying art in medical institutions of learning

It was heartening that the group of users of the Suttie Centre who were surveyed had noticed the artwork and had had discussions with each other around them. They felt that the artwork added to the ethos of the centre, the staff slightly more so than students, perhaps because their regular daily work kept them in the building for longer. When asked to consider if the artwork in the Suttie Centre was appropriate for a medical school, nearly all respondents agreed, suggesting the art selected and commissioned for the building was generally relevant to them. As far as specific pieces of art were concerned, 'The Patient' was a thought-provoking

piece that stimulated some respondents to take a closer look at the impressive detail; however, there were a few who felt it to be slightly ‘depressing’ and ‘not hugely uplifting’, perhaps contributing to the negative responses to the item that asked whether the art is morale boosting. It was interesting to find that participants recognized that their ideas of a particular artifact may change over time.

The mainly positive responses to the questionnaire illustrates that our respondents find that visual art is relevant within this setting. A medical school with a ‘soulless environment’ would not enable students and staff to learn and to work to their best potential. One must bear in mind subjective opinions regarding which artworks to display and people’s qualms about the costing of art and prioritization of money spent. It is University policy that 1% of the total expenditure for a building goes towards art, however not everyone may believe it is useful or right to spend money on art. This demonstrates how expenditure on art for Medical Schools is perhaps a controversial issue. Despite these opinions, the majority of respondents agreed that the building would be a less appealing place without

art. This study does add to the sparse evidence in this area putting forward an argument for the necessity of displaying art in medical institutions of learning.

It is interesting to note that Hamish McDonald’s artistic displays of his experience of life as a cancer patient now hang in the atrium of the new Medical School building in Glasgow. These artworks are meaningful in a Medical School where students are learning to respect the humanity of patients in addition to trying to understand the patient’s experience of illness. In contrast, it is likely that, if they were to be hung in a hospital setting, these images might be distressing for patients.

There are limitations to our study, the main being that only a sample of users from the Suttie Centre was recruited. Not everyone who uses the building was asked for their opinion on the subject of visual art. Perhaps, if more people had been asked then perhaps different themes, attitudes and judgments could have come forth. Nevertheless, there does emerge a persuasive argument for the relevance of displaying art within Medical Schools. Further work in this area may strengthen these claims.

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Declaration

The above project (along with additional case studies of three pieces of art at the Suttie Centre, University of Aberdeen) was submitted for a BSc (Med Sciences) Humanities Course Degree (2014), University of Aberdeen Medical School, Scotland by the first author.