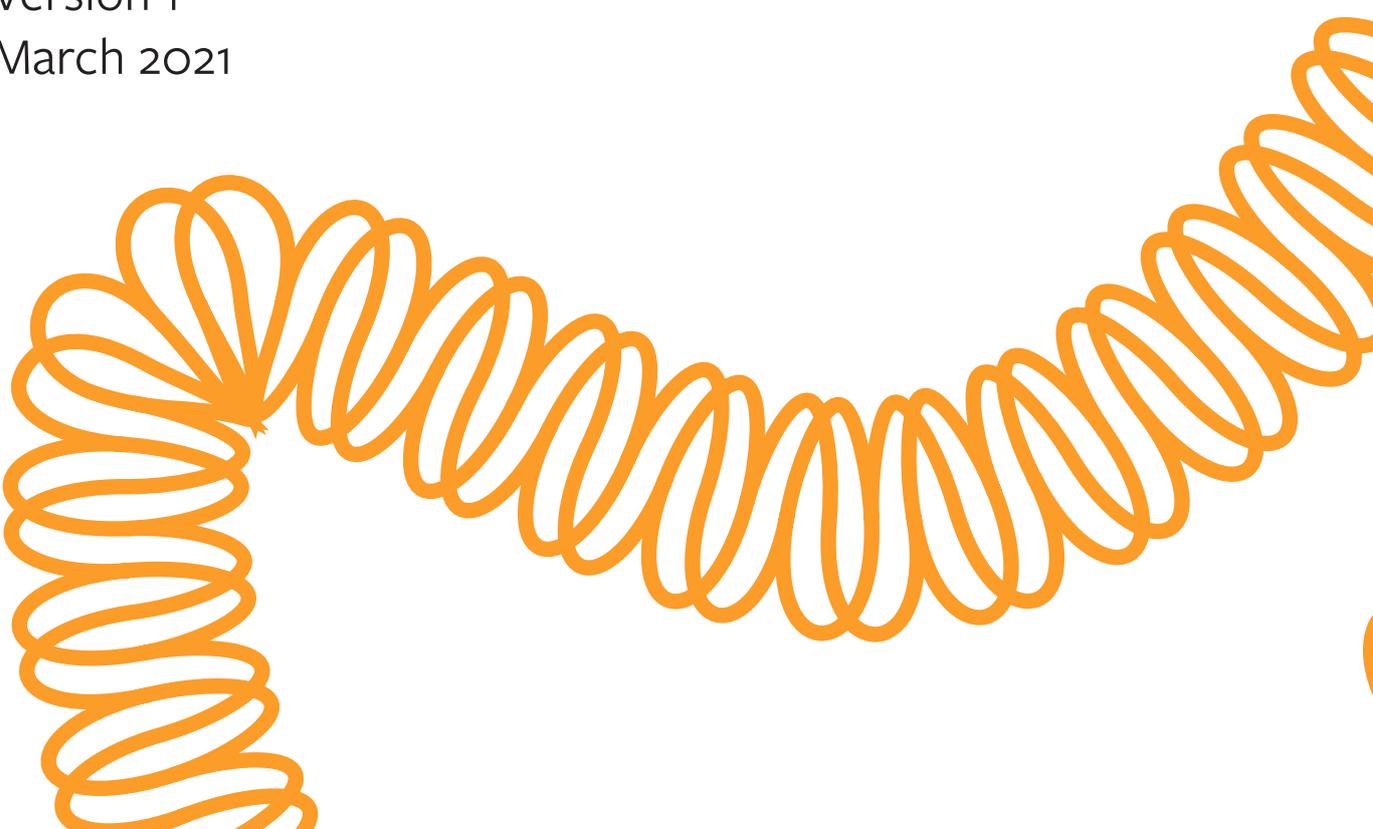




**CENTRE** FOR  
**CULTURAL VALUE**

# Research digest: Training and development of healthcare students

Version 1  
March 2021



# About the Centre for Cultural Value

The Centre for Cultural Value is building a shared understanding of the differences that arts, culture, heritage and screen make to people's lives and to society. We want cultural policy and practice to be shaped by rigorous research and evaluation of what works and what needs to change. To achieve this, we are working in collaboration with partners across the UK to:

- Make existing research more relevant and accessible so its insights can be understood and applied more widely.
- Support the cultural sector and funders to be rigorous in their approaches to evaluation and to foster a culture of reflection and learning.
- Foster an evidence-based approach to cultural policy development.

Our approach is primarily pragmatic: we want empirical research to drive decisions about cultural funding, policy, management, engagement and evaluation.

Based at the University of Leeds, the Centre's core partners are The Audience Agency and the Universities of Liverpool, Sheffield and Queen Margaret University, Edinburgh. The Centre is funded by the Arts and Humanities Research Council (part of UK Research and Innovation), Paul Hamlyn Foundation and Arts Council England.

## About our research digests

Our research digests are based on a rapid assessment of published literature (both peer-reviewed and non-academic) to present a 'snapshot' of cultural value research across a number of core themes that have been developed through consultation with stakeholders. The reviews present an overview of key findings, what we know for certain, where there is emerging evidence and where further research is needed. We use the evidence gained through the review process to make conclusions about the current state of the evidence, and what implications this has going forwards.

Other formats of this document are available on request. If you require an alternative format, please contact: [ccv@leeds.ac.uk](mailto:ccv@leeds.ac.uk)

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Research digest prepared by Dr Robyn Dowlen for the Centre for Cultural Value.

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# Highlights

Healthcare students (e.g. medical, nursing, dental students etc) are required to develop their practice beyond core clinical skills to enable a person-centred, ethical, and empathetic approach to care. There are growing examples of cultural organisations and practitioners working with healthcare educators to develop programmes that aim to address non-clinical skills. We wanted to understand what evidence there is to support or challenge the value of culture in the context of the training and development of healthcare students' practice.

We identified 20 peer-reviewed studies which examined impacts and outcomes relating to the training and development of healthcare students. Across these published studies, the two most commonly represented programmes were theatre (including role play and improvisation) or gallery-based. Medical students were the most commonly represented student-type, with there being smaller representation from nursing, dental and midwifery students. The majority of programmes were voluntary and short-term in nature.

The strongest evidence currently represented within the literature is the value of cultural programmes in enabling healthcare students to gain a greater understanding of patient experiences and perspectives. This was particularly apparent within studies that examined theatre-based approaches, with roleplay and improvisation being commonly associated with these positive outcomes. There was also emerging evidence of improvements in observational skills as a result of engaging with gallery-based programmes, especially those led by staff members trained in specific viewing techniques (e.g. the Art of Observation).

Overall, while there is promising evidence that there is a positive role of cultural programmes within the training and development of healthcare students, there is a need to move beyond small-scale and short-term evaluation, to be able to demonstrate tangible benefits to students' practice beyond the short-term scope of individual programmes.



# Background

In recent years there has been an increased interest in the role that arts and culture may play in the training and development of healthcare students (including disciplines of medicine, nursing, midwifery and dentistry). During training students learn key clinical skills that are relevant to their given profession, as well as developing non-clinical skills. These non-clinical skills assist students working in complex healthcare contexts to support a wide range of patients, while upholding the principles of person-centred care (e.g. recognising diversity, protection of patient dignity and rights etc).

In order to evaluate the evidence around the value of arts and culture in supporting non-clinical skills development, we synthesised and appraised literature published since 2010. This rapid review of the literature was conducted between April and June 2020 and was updated ahead of publication in March 2021. This review is part of our synthesis of research within the Culture, Health and Wellbeing theme.

# Methods

We conducted a rapid review of the academic literature that has been published since 2010 so we could present a snapshot of the recent evidence. We used a systematic approach to identify relevant literature, using academic databases as well as the [Repository for Arts and Health Resources](#).

## What we included

We included peer-reviewed, primary research that was published in English between 2010 and 2020. Although the scope of the review included identifying high quality evaluation reports, we didn't identify any that were of direct relevance to the topic. We looked for research where the focus of programmes was on healthcare students (from any discipline) and was centred on an aspect of training or development (e.g. observation skills, teamwork, empathy etc).

## What we didn't include

We didn't include studies where it wasn't possible to separate students from qualified professionals, as our focus was on the value of arts and culture in healthcare education contexts. We also didn't include studies which included creative arts therapies. While we recognise the vital work of creative arts therapists, the focus of this review was on the impacts and outcomes of work produced/supported by the arts and cultural sectors.

## What questions did we ask?

1. What evidence is there to support or challenge the role of arts and culture in addressing the non-clinical training and development needs of healthcare students?
2. Which types of arts or cultural programmes are on offer to students within their healthcare education? What training and development needs do they seek to address? What are the perceived strengths/limitations of the research?
3. How is the value of arts and culture in training and development outcomes researched and evaluated?
4. What are the perceived strengths/limitations of the research?
5. What are the current gaps in understanding and what does future research need to focus on?



# Findings

We identified 20 peer-reviewed articles which investigated outcomes relating to arts and cultural programmes in the context of training and development of healthcare students (see [table of studies](#) for more information). Of these studies, nine were conducted in the USA, five in England, two in Canada, one in Australia, one in Ireland, one in France and one in Sweden. Participants in 13 studies were medical students, with nursing students accounting for four of the studies, two examples of mixed cohorts of healthcare students (medicine and nursing; medicine and dentistry), and one focussed on midwifery students.

The most commonly represented type of programme was engaging with artworks within a gallery context (30%) with theatre-based programmes being the second most highly represented within the literature (25%). Other examples included students creating original artworks (15%), viewing films relating to specific elements of practice (10%) (e.g. disability awareness; understanding specific clinical contexts), reading an animated comic (5%), engaging in music-based activities (5%), creative writing (5%) and mixed programmes of participatory cultural activity (5%) (including visual art, object handling and photography).

Sixteen of the programmes enrolled students on a voluntary basis and four programmes were mandatory as part of the wider healthcare curricula. Half the programmes (50%) were one-off sessions over two-to-three hours of engagement with students, with only four studies showing longer-term engagement including 'intensive' courses over one to two weeks and one example of a Student Selected Component<sup>1</sup> (8 weeks).

Many of the studies reported multiple outcomes relating to non-clinical training and development, but the most commonly reported outcome of interest was reflective practice and self-reflection (30%), with observation skills (25%), developing empathy (30%) and understanding patient experiences (15%) also represented within the literature.

The majority of studies used purely qualitative research methods in order to demonstrate training and development outcomes (65%). The most commonly represented method was open-ended student evaluation questionnaires (40%), followed by focus groups (20%). Five studies used purely quantitative methods, with one using a non-standardised outcome measure, one using a standardised outcome measure ([Jefferson Scale of Physician Empathy](#)), with the other three studies identifying changes in observational and listening skills before/after enrolment on a cultural programme. One study used a mixed-methods approach with a combination of focus groups and a standardised measure of 'physician empathy'. The final study used a curatorial approach to group student created artworks within themes to represent understanding of course material.

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1 Student Selected Components are modules of study beyond the core medical curriculum. The aim of these modules is to enable student development beyond the core curriculum, enabling students to engage with self-directed learning that covers a wide range of topic areas.



## Where is the strongest evidence?

Within the literature, the most strongly represented theme was the value of cultural experiences in enabling healthcare students to gain a greater understanding of patients' experiences and perspectives. This is because many of the programmes allowed students to explore their roles as healthcare professionals through multiple lenses: their own lens as a healthcare student; the lens of patients receiving care; and the lens of other healthcare professionals they may encounter in their careers.

By exploring healthcare practice through a range of cultural programmes and experiences, students were able to gain an appreciation for the role of multiple perspectives in healthcare decision-making and the ways in which different healthcare professions are viewed by patients. This gave students greater insights into how patients saw them and their practice, creating further opportunities for self-reflection on how their actions and reactions may be perceived by patients within their care.

Specifically, programmes that used theatre-based exercises (namely role play and improvisation) seemed to help students develop a greater understanding of the patient perspective. Role play and improvisation allowed students to place themselves in both the healthcare professional role, which enabled them to see the ways in which their body language and verbal communication skills impacted on the patient's experience, and the patient role, which enabled them to have first-hand experience of what 'good' and 'bad' practice looked like from both perspectives (see Box 1 for more information).

### Box 1: Examples of role play and improvisation-based practice

**Arveklev et al** (2018) explored a drama-based programme for nursing students, including role play and improvisation. During role play exercises, students had the opportunity to play the roles of 'nurse' and 'patient' in a scenario focussed on supporting a patient with a sleep-related disorder. Data was collected through focus groups and focussed on understanding student experiences of taking part in the programme. In their roles as 'nurse', students reported they were able to understand their role more concretely through exploring their future professional self and reported having a greater sense of self-awareness. In their roles as 'patient', the students were able to see nursing practices through the eyes of a patient and reported that this enabled them to develop their communication skills by having a greater understanding of patient experiences and perspectives.

**Hammer et al** (2011) examined the role of theatre training to improve medical students' case presentation skills. [Guthrie Theater](#) (Minnesota, USA) led the programme which included improvisation activities, storytelling, monologues and body language exercises. Researchers gathered pre- and post-programme evaluation surveys. Prior to taking part in the programme students reported feeling unsure that they had the competencies to effectively take a medical history and share it as a case presentation. After engaging with the programme six out of seven students reported feeling more confident in this skill. Students also reported that they had improved their listening and communication skills.

**Skye et al** (2014) evaluated the role of a theatre performance and role play in developing medical students' skills in breaking bad news. Actors performed 'Joanne's Story', a 20-minute performance about a woman who learns she has inoperable colon cancer, and discussions followed about the themes raised within the performance. This was followed by roleplay exercises where students played out four scenarios where they may have to break bad news. The impact of the programme was evaluated using a post-programme evaluation survey. 94% of students reported that they felt the interactive theatre performance provided realistic scenarios that enabled them to learn more about the different perspectives of doctor and patient.



Although role play and improvisation-based exercises seemed to be particularly valuable in supporting students to learn about the multiple perspectives involved in healthcare decision-making, it is important to remember that role play and simulation are common educational tools used within healthcare curricula. The majority of studies identified for this review engaged with cultural organisations in the delivery of programmes, so an important next step may be to explore the value of role play and improvisation that is supported by cultural practitioners and cultural organisations. What added value do cultural practitioners bring to the training and development of healthcare students above and beyond the use of role play in a more traditional learning context?

We must also highlight that many of the studies that reported a relationship between programme attendance and improved understanding of patient experiences and perspectives were small-scale and short-term evaluation studies that did not directly examine whether these experiences led to any changes in students' practice. While it is always a challenge to capture the value of any given training opportunity and how it informs future practice, it is important to consider what research methods may be best placed to show the longer-term relationship between learning and practice.

## Where is there emerging evidence?

While the strongest relationship was observed between engagement with cultural programmes and developing a stronger understanding of patient perspectives, a number of other themes were common across studies. While we can infer a relationship between students' engagement and these outcomes, it is not something that was observed consistently and future research should seek to strengthen understanding of these relationships.

### **Observation skills**

In gallery-based programmes, students examined a range of artworks during single or multiple onsite sessions. These programmes were largely aimed at medical students (4/5) with one having a mixed cohort of medical and nursing students. Three of the four studies that used these observational exercises were led by gallery staff who guided students to examine their preconceptions of the artwork without knowing its title or context; what they could see from afar vs. up-close; as well as comparing and contrasting artworks from different eras, movements or styles. A range of methods were used to infer improvements in observational skills: student reflections; focus groups; standardised assessment tools; and pre-and post-intervention observation tasks (See Box 2 for more information).



## Box 2: Examples of gallery-based programmes with a focus on observation skills

**Edmonds et al** (2012) examined the impact of [Tate Liverpool's Opening Doors](#) course. This one-day programme enabled students to engage with artworks with the aim of exploring perception, communication, emotion and narrative. Medical students were invited to the gallery setting and took part in four exercises developed to use visual arts as a stimulus for developing medical insight. Three methods of data collection were used: 1) evaluation forms; 2) student written reflections; and 3) focus groups. Students reported that engagement with the artworks enabled them to develop their skills in observation and decision-making, challenged their preconceptions, and helped them to understand the range of perspectives and viewpoints that they may encounter within practice.

**He et al** (2019) explored the role of the [Art of Observation programme at the Dallas Museum of Art](#) on medical students' observation skills and empathy. This elective course was developed to encourage the development of observational skills and empathy. Evaluation forms with open-ended reflection prompts were used to gather data. Students reported that their observational skills had improved as a result of taking part in the programme. In particular, they expressed that they had learned to 'look twice', reporting awareness that their first impressions may be loaded with implicit biases.

**Klugman et al** (2011) examined the role of a [Visual Thinking Strategies](#) programme at the [McNay Art Museum](#) (San Antonio, Texas) in improving medical and nursing students' physical observation skills, tolerance for ambiguity and communication skills. Three research methods were used: 1) student pre- and post-programme evaluation survey; 2) two standardized tests ([Budner's Tolerance of Ambiguity Scale](#) and [Communication Skills Attitudes Scale](#)); and 3) pre- and post-programme examination of images of artworks and patient images.

However, although there is some evidence that interacting with artworks in a gallery setting improves the observational skills of medical students specifically, there are a number of limitations to this particular subset of the literature. First of all, the observational tasks that students engaged with were very superficial in nature (e.g. being asked the question 'What do you see?') and it is unclear whether students simply observed a greater quantity of things in an image, or whether it was a higher quality of observation. The challenge here is that none of the studies formally examined whether there was any change in students' observational skills post-programme, and so at this stage it is difficult to know whether there was a positive and meaningful change for students or whether there may be a degree of socially desirable responses given the nature of the programme.

### Rehearsing challenging clinical scenarios

Five studies reported that engaging with a cultural programme (specifically film and theatre) enabled students to rehearse challenging scenarios that they may encounter within their practice (e.g. breaking bad news). Students were able to rehearse scenarios that required sensitivity and were able to enter environments (such as an emergency department) that they had not been able to in their training so far. Students valued the 'realism' of the scenarios they encountered through film and theatre, with one study reporting that the delivery of the programme by professional actors enabled the context to feel more real. However, in this particular study some students also fed back that question and answer sessions with the actors in 'character' was not helpful, as they knew it was a made-up scenario, which reflects the scepticism that was observed in a handful of studies by both healthcare students and teaching staff.



### Box 3: Examples of studies reporting value in rehearsing clinical scenarios

**Brand et al** (2017) explored the role of a film ([The Art of the ED](#)) in stimulating reflective practice in medical students. Students viewed the film ahead of their first placement within an Emergency Department (in Australia). Students were asked to respond to prompts about the film (e.g. How did the film make you feel? Which patient stood out to you and why?). Students submitted a 500-word written reflection based on the film and this data was used to explore the value of the programme in relation to reflective practice and empathy. Students reported that they appreciated the opportunity to experience the realities of the Emergency Department ahead of their placement and reported being able to develop understanding of individual patients and their experiences while in this context.

**de la Croix et al** (2011) reported on [Clod Ensemble's Performing Medicine](#) programme: an arts-based programme developed to support skills relevant to clinical practice. This includes sessions on voice, body language, and team building; examining cultural issues through the arts; and teaching on the role of arts in health care. Data was collected through student written feedback using open ended questions. Students reported that they valued the opportunity to understand their professional role as a 'doctor'; developed more understanding of patient experiences and perspectives; enhanced their own self-awareness; and improved their communication skills.

## Where does future research need to focus?

Although there are a number of areas presented in this research digest that highlight the value of culture in the training and development of healthcare students, it is clear that there is a need to upscale from small-scale evaluation towards a longer-term exploration of how and why programmes may facilitate personal development for students. At the moment, this is a clear challenge as many of the programmes reported within this review were voluntary and either one-off sessions or workshops. Without clear indications of where arts and culture fit into healthcare curricula it may, at present, be difficult to convey the value of such programmes to those who are developing curricula. It is clear, therefore, that there is opportunity to move beyond small-scale evaluation towards a more rigorous research agenda within this area. The challenge, of course, is embedding arts and cultural programmes within healthcare curricula when the evidence in its current form may not provide enough concrete evidence, but without investment from healthcare courses in such programmes there may not be the opportunity to develop a more large-scale, robust research programme.

Furthermore, the focus of many of these studies was on medical students with fewer examples from other healthcare-related disciplines. The emerging findings from this review, namely understanding patient perspectives and observation skills, may have an application within these other disciplines and so future research should seek to broaden the participant-base for such programmes to enable both discipline-specific development as well as opportunities for cross-disciplinary training and development opportunities.



# Conclusions and implications

Although all the studies demonstrated positive outcomes relating to student engagement with cultural programmes, there is still significant progress that needs to be made in this research area to create a stronger evidence base. This is due to the following factors:

- While we can see emerging evidence of the value of engaging with cultural programmes (especially theatre and gallery-based programmes), there is a need to build on what has been shown to date through a more rigorous, longer-term research programme which can begin to unpick the ways in which findings may be extended to students' longer-term practice.
- We can only draw conclusions relating to medical students at the moment, and there is far less literature that includes other healthcare disciplines.
- Role play and simulation are commonly used within healthcare curricula but at the moment the role of cultural practitioners in delivering programmes using this method is not specifically explored. E.g. what do cultural practitioners offer above and beyond role play exercises supported by healthcare teaching staff?
- We must, of course, acknowledge the changing landscape of learning for healthcare students during the COVID-19 pandemic, and whether the delivery of online course content may provide more flexibility in the future to embed arts and cultural programmes within healthcare curricula.

## Next steps

Our research and evidence base for cultural value needs to respond to what works now and what needs to change in the future, so that we support practitioners and policymakers to develop models and practices that are more robust, equitable and sustainable.

We will review this publication in spring 2022 to reflect relevant research and evaluation that was published after the first edition of this digest.

If you are aware of new publications or feel we have missed a vital piece of research or evaluation that should be included in our 2022 update please **get in touch** at:

[ccv@leeds.ac.uk](mailto:ccv@leeds.ac.uk)



## Studies included in the review

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## Table of studies

For a more detailed breakdown of studies, including location, student population, outcome focus and length of programme [please click here](#).



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