

PROTOCOL

Administrative Information

Title

The Effects of Viewing Visual Artwork in Healthcare Settings: A Scoping Review

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Abstract

Objective: The objective of this scoping review is to more fully comprehend the breadth and scope of studies related to the effects of wellbeing, wellness, and belonging when participants view visual artwork in healthcare settings.

Introduction: There is growing evidence that engaging with visual artwork correlates with the outcomes of wellbeing, wellness, and belonging. While past scoping reviews have identified how viewing visual artwork may support wellbeing and reduce stress, there is a gap in the literature related to the effects of viewing visual arts in healthcare settings.

Inclusion criteria: This scoping review uses the PICOS framework to inform its analyses. We include all participants who were involved in an intervention of a visual art program in a healthcare setting, with or without a control group. Outcomes related to wellbeing, wellness, and/or belonging were included. Any kind of study design is included as well as gray literature.

Methods: A scoping review protocol was developed in accordance with the Joanna Briggs Institute methodology for scoping reviews (Peters et al., 2020), which uses the preferred reporting items for systematic reviews and meta-analyses extension for scoping reviews (PRISMA-ScR). Two teams of two independent raters will perform the screening and extraction, with regular quality checks implemented by core investigators. The teams will assess studies that include descriptions of participant recruitment, assessment methods, and outcome reporting as a sub-set of articles eligible for critical appraisal.

Rationale

Health-Related Outcomes and the Visual Arts. The World Health Organization [WHO] (2004) describes health 'not just as the absence of disease or infirmity' and highlights the importance of physical, mental, and social wellbeing in achieving optimal health. This definition of health goes beyond the traditional notion of being disease-free and recognizes the interconnectedness of different aspects of wellbeing and wellness. This concept finds practical application in the field of arts in health. Building on the WHO's holistic definition of health, examining how art viewing contributes to these key health dimensions becomes salient. Indeed, a robust body of evidence has identified the potential of arts-based practices in promoting the health-related outcomes of wellbeing, wellness, and belonging (Fancourt & Finn, 2019; Jensen & Bonde, 2018; Pesata et al., 2022; Poulos, et al., 2019; WHO, 2021).

Among the many genres of art practices, the visual arts have historically been a fundamental aspect of human civilization, providing a distinct avenue for expression and reflection (Hessel, 2022; Sharma & Alexander, 2023; Lewis-Williams, 2004). Visual arts practices include mediums such as paintings, murals, ceramics, sculpture, photography, digital media, and other related disciplines (Britannica, 2024). In contemporary society, the visual arts play an integral role, transcending cultural and geographical boundaries to evoke emotional and cognitive responses (Aspen, 2021; Magsamen, 2023; Pelowski et al., 2020;). Furthermore, there is growing evidence of how engaging with the visual arts has an evidence-based positive effect related to wellbeing (Lankston, et al., 2010; Steele, 2020), wellness (Sonke & Lee, 2015), and belonging (Ching, et al., 2022; MacPherson, et al., 2016).

Reviews of Health and Visual Arts Engagement. Descriptions of how participants engage with the visual arts are varied in scientific literature. Firstly, "active" participation (i.e., "participatory" engagement), describes processes of making/creating visual artworks (Brown, et al., 2011; Davies, et al., 2012). Conversely, "passive" (Davies, et al., 2012; Law, et al., 2021) and/or "receptive" (Davies & Clift, 2022; Palityka, et al., 2023; Roberts et al., 2011) participation/engagement denotes viewing/observing the art, and/or listening/touching for participants who are visually impaired (Palityka, et al., 2023). Many reviews include art therapy activities, non-clinical active art engagements (e.g., open painting workshops), and passive/receptive engagements in their analyses (Archibald, et al., 2014; Daykin, et al., 2008; Jiang, 2020; Noice, et al., 2014; Ullán & Belver, 2021). Additionally, in a review by

Boyce et al. (2018), which excluded art therapy, they found several incidences of positive health descriptions related to both active and passive/receptive engagements.

In a scoping review that focused exclusively on “passive” engagement, Law et al. (2021) identified numerous studies that indicated the stress-reductive effects of viewing visual art. Similarly, Timonen and Timonen (2021) identified 29 articles that indicated viewing visual art work in hospital rooms had “clear positive effects.” And a protocol is currently underway that examines the efficacy/effectiveness of viewing visual art on wellbeing (Trupp, et al., 2022). The asymmetry of literature that focuses on active engagement vs. passive/receptive engagement (i.e., viewing) is self-evident, and this scoping review aims to better understand what scientific literature exists related to the health effects of viewing and/or receptive engaging with visual art. In this protocol, the authors use the term “viewing” as an inclusive term to encompass receptive engagement of visual art (e.g., touching, hearing, and other sensory engagements with visual art among participants with visual impairments).

The Effects of Wellbeing when Viewing Visual Art. There is evidence that viewing visual art has positive associations with wellbeing. Investigations in settings such as museums (Chatterjee & Noble, 2016), as well as publicly accessible murals (Felsten, 2009; Tebes, et al., 2015), indicate that viewing visual art may boost wellbeing outcomes (e.g., social cohesion, a sense for restoration, etc.). In healthcare settings, several studies posited that viewing visual arts aids patients by providing “positive distractions” that aid in stress reduction (Jiang, 2020), pain management (Tse, et al., 2002), and perceived quality of care (George, et al., 2018; Hill, et al., 2020). Also for patients, viewing visual art aids in reducing symptoms of self-reported anxiety (Karnik, et al., 2014; McCabe, et al., 2013) as well as improvements in heart rate and systolic blood pressure (Pearson, et al., 2019). The studies surveyed multiple spaces within a healthcare facility, including inpatient, waiting areas, and outpatient settings.

There are fewer studies related to the effects of viewing visual arts for visitors (i.e., peers/family of patients) and personnel at healthcare facilities compared to patients. Ullán and Belver’s (2021) scoping review found studies that indicated viewing visual artwork increased “satisfaction” among the parents of paediatric patients. For healthcare staff, there is evidence that exhibiting animations with natural scenes improved environmental satisfaction for personnel in mental health facilities (Kalantari & Snell, 2017) and that healthcare practitioners preferred large paintings for expansive walls (e.g., waiting room walls) (Devlin, et al., 2020). While these limited examples do not point to outcomes such as pain/stress reduction, a select number of patient-related reports suggest that identifying creative strategies to enrich healthcare workers’ experience could very well contribute to whole-systems workplace improvements (Brand, et al., 2017).

Wellbeing, Wellness, & Belonging in Healthcare Settings. This scoping review investigates the effects of viewing visual art in healthcare settings and outcomes related to wellbeing, wellness, and belonging among all possible participants (e.g., patients, visitors, healthcare workers, etc.). We focus on these outcomes to build on existing evidence related to positive effects (Timonen and Timonen, 2022), reduced stress (Law, et al., 2021), and additionally contribute to future findings that may examine the potential impacts of viewing visual art and specific health-related outcomes. While the evidence of wellbeing (Hill, et al., 2020; Jiang, 2020; Karnik, et al., 2014; McCabe, et al., 2013) and wellness (Sonke & Lee, 2015) has been described for viewing visual arts, studies related to belonging have mostly been associated with active engagement (Ching, et al., 2022; MacPherson, et al., 2016). We include belonging as a third outcome for this scoping review, however, because this term

has been more strongly associated with healthcare workers/personnel (Borrott, et al., 2016; Pugh, et al., 2023); whereas wellbeing/wellness has mostly been associated with patient (Hill, et al., 2020; Jiang, 2020; Karnik, et al., 2014; McCabe, et al., 2013; Sonke & Lee, 2015) and community-level assessments (Pesata, et al., 2022).

Critical Appraisal for Select Studies. To advance the rigour of future studies of how the visual arts may positively impact the health and wellbeing of people in healthcare settings, this scoping review includes a critical appraisal for an anticipated subset of identified studies. Given the paucity of literature available on this topic, as well as the likelihood of gray literature available, a scoping review is critical to identify the array of fields, outcomes, participants, and settings related to the research question. For studies that detail key aspects of their systematic inquiry, critical appraisal tools will be applied to aid forthcoming evaluations on related topics and additionally limit the results from broad strokes of findings, which could undermine a robust analysis (Van Lith, et al., 2013).

Preliminary Search. A preliminary search was carried out on PubMed and Google Scholar on December 12, 2023, and the investigation was further expanded through spider webbing and citation chasing (Cooper, et al., 2018). The manuscripts and protocols of reviews related to health, wellbeing, and the visual arts were identified and outlined in the Rationale section above.

Objectives

Research Question: This scoping review aims to more fully comprehend the breadth and scope of studies related to the effects of wellbeing, wellness, and belonging when participants view visual artwork in healthcare settings. The review will encompass any healthcare or clinical setting (e.g., waiting rooms, care units, lobbies, outdoor walls, etc.) and any population (e.g., patients, healthcare staff, and peer caregivers, etc.).

Primary research question: What research has been conducted on the wellbeing, wellness, and belonging effects of viewing visual artwork in healthcare settings?

This review will investigate:

- 1. Fields/Discipline of Program:** In which fields and/or disciplines is the visual art program contextualized (e.g., clinical practice, public arts engagement, etc.)
- 2. Locations/Settings of Art:** Which settings were utilized in the various healthcare facilities (e.g., lobby, in-patient rooms, waiting room, exterior/outdoor program, etc.)
- 3. Visual artwork:** What kinds of visual artwork was described in the healthcare program (e.g., painting(s), mural(s), sculpture(s), photography, etc.)
- 4. Populations Engaged:** How were the participants described, engaged, and/or assessed as part of the visual art program?
- 5. Methods:** What methods were used to assess the effects of the visual art (e.g., questionnaires, interviews, attendance tracking, arts-based methods, etc.)?
- 6. Outcomes:** Any outcome related to wellbeing, wellness, and/or belonging.
- 7. Critical Appraisal Subset:** For a subset of publications that detail the processes of participant recruitment, methods, and outcomes, how do these examinations rank with standardized critical appraisals of systematic research?

PICOS Framework:

This scoping review uses the PICOS (i.e., population, intervention, comparator, outcome, and study design) framework (Univ. of York, 2009) in place of the standard PCC framework (Peters, et al., 2020) because PICOS emphasizes health-related interventions as a scoping review approach.

Population (P): The participants for this scoping review include any persons of any age who were purposely recruited, included, counted, or described as having receptively engaged (e.g., viewed) visual arts works that were programmatically in a healthcare setting. For the purposes of this review, a healthcare setting is defined as hospitals, clinics, community health, and public health settings. Additionally, all geographies and time settings will be included in this review.

Intervention (I): The intervention was a visual art program, intervention, or practice in which visual art products (e.g., paintings, murals, sculptures, ceramics, etc.) were intentionally featured in a healthcare facility/setting.

Comparator (C): No comparative intervention.

Outcome (O): All outcomes related to wellbeing, wellness, and belonging were included.

Study design (S): All research designs are included.

Methods

Summary: The proposed scoping review will be guided by the JBI methodology for scoping reviews (Peters, et al., 2020).

Search Strategy

The search strategy will aim to locate both published and unpublished studies. An initial limited search of PubMed was undertaken to identify articles on the topic. The text words contained in the titles and abstracts of relevant articles and the index terms used to describe the articles were used to develop a full search strategy. The search strategy, including all identified keywords and index terms, will be adapted for each included database and information source. The reference list of all included sources of evidence will be screened for additional studies.

The databases to be searched include EBSCOhost's Alt HealthWatch (1984 – Present), Art and Architecture Source (1914 – Present), CINAHL (1976 – Present), Psychology and Behavioural Sciences Collection (1930 – Present), and PsycINFO (1600 – Present); Elsevier's Embase (1947 – Present) and Scopus (1788 – Present); PubMed; and Web of Science. Sources of unpublished studies/ gray literature to be hand searched include National Organization for Arts in Health (NOAH), Alliance for the Arts in Research Universities (a2ru), American Art Therapy Association, American Music Therapy Association, the University of Florida Center for Arts in Medicine Research Database, The Wallace Foundation, The International Expressive Art Association, University College London, and the National Endowment for the Arts.

In addition to the database searches, the investigators will solicit through social media sites, newsletters, and emails a request for gray literature related to the research question.

Study/Source of Evidence Selection

Following the search, all identified citations will be collated and uploaded into Covidence and duplicates removed. Following a pilot test, titles, and abstracts will then be screened by two teams of two independent reviewers for assessment against the inclusion criteria for the review. The full text of selected citations will be assessed in detail against the inclusion criteria by the independent reviewers. Reasons for the exclusion of sources of evidence in full text that do not meet the inclusion criteria will be recorded and reported in the scoping review. Any disagreements that arise between the reviewers at each stage of the selection process will be resolved through discussion or with an additional reviewer/s. The results of the search and the study inclusion process will be reported in full in the final scoping review and presented using the PRISMA-ScR flow diagram (Tricco, et al., 2018). Once screening is completed, the bibliographies of the included studies will be reviewed to identify any relevant studies that were not retrieved in the search.

Data will be extracted from papers included in the scoping review by the independent reviewers using Covidence (Covidence, 2023). The data extracted will include specific details (i.e., tags) about the fields, disciplines, locations, settings, visual artwork, populations, outcomes, and methods.

Articles that meet the criteria of (1) a description of how participants were recruited, (2) details on the methods used, and (3) contain results and discussion sections providing outcomes analysis will be separated into a sub-set to be critically appraised. We outline in the table below the anticipated methods and related critical assessment tools that would be applied accordingly.

Critical Appraisal Tools		
Method Outlined in Article	Tool with Reference	URL
Qualitative	CASP (Long, et al., 2020)	https://casp-uk.net/checklists/casp-qualitative-studies-checklist-fillable.pdf
Mixed Methods	MMAT (Hong, et al, 2018)	http://mixedmethodsappraisaltoolpublic.pbworks.com/w/file/attachment/127916259/MMAT_2018_criteria-manual_2018-08-01_ENG.pdf
Cross-Sectional Quantitative	STROBE (Cuschieri, 2019)	https://www.strobe-statement.org/checklists/

Any modification in the data extraction process will be detailed in the scoping review. Disagreements that arise between the reviewers will be resolved through discussion or with an additional reviewer(s). If appropriate, authors of papers will be contacted to request missing or additional data, where required.

Eligibility Criteria

Inclusion criteria:

- Materials that involve human populations of any age
- Materials that involve clinical populations in any kind of healthcare setting (e.g., patients, clinicians, healthcare staff, etc.)
- Materials that involve non-clinical populations in any kind of healthcare setting (e.g., attendance tracking of visitors in an art lobby of a hospital)
- Materials that describe visual arts programs that exhibit visual artwork (e.g., paintings, murals, sculptures, photography, etc.) with any kind of healthcare facility
- Materials that describe a visual art program in any location/setting of a healthcare facility (e.g., waiting room, lobby, in-patient room, the exterior walls of a hospital, a sculpture garden that is a part of the healthcare facility, etc.)
- Materials that describe participants viewing (i.e., receptive engagement) visual artwork in healthcare settings
- Materials that describe non-visual receptive engagement of visual artwork in a healthcare setting (e.g., an audio-tour of a visual art exhibition in a clinical setting)
- Materials that report on outcomes related to wellbeing, wellness, and/or belonging
- Materials that include original research studies (i.e., quantitative, qualitative, or mixed methods), reports, and gray literature (i.e., theses, dissertations, research and committee reports, government reports, conference papers, and digital materials)
- Materials published at any point in time
- Materials written in any language for which there are two raters available

Exclusion criteria:

- There are no exclusions based on age, gender, sexual orientation, religion, ability, race, ethnicity, nationality, legal status, economic status, or country of residence
- Materials that describe active engagement activities related to visual art creation (e.g., painting courses for healthcare facility staff, workshops for patients/healthcare workers, etc.)
- Materials that describe arts programming in a healthcare setting that do not include explicit language related to viewing visual artwork (e.g., merely the description/assessment of a visual art therapy or arts education program, report on visual arts activities in a healthcare setting, report on viewing live performances, such as dance)
- Materials related to visual art programs that are disconnected from a healthcare facility (e.g., description of a visual art program in a neighbouring park, temporary exhibits on a nearby street funded by the healthcare organization, community programs affiliated with a healthcare facility, etc.)
- Materials that report on outcomes that are not explicitly related to wellbeing, wellness, and/or belonging

- Reviews of evidence syntheses, protocols, and news reports.
- Materials that do not meet the eligibility criteria above

Keywords

art viewing; healthcare; hospitals; visual art; wellbeing; wellness; belonging

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Conflicts of interest

There are no conflicts of interest in this project.

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Appendices

Appendix I: Data extraction instrument

Author(s)
Year of Publication
Article Title
Country of Publication
Article Language
Aim of Article
Field/Discipline of Article
Type of Healthcare facility
Healthcare setting of art (e.g., waiting room, inpatient, etc.)
Method of engagement of the population with art (e.g., viewing, audio, etc.)
Visual Art Artifact
Population

Description
Outcomes Identified
Methods Used
Critical Appraisal (Y/N)

Appendix II Glossary of Key Terms

This table defines key terms used by the authors and aims to support a consistent understanding of the terminology/key terms.

Term(s)	Definition
Active and/or Passive Participation/Engagement	Describes processes of making or creating visual artworks.
Belonging	A need for interpersonal connections and is the basis for an individual's self-esteem and self-actualization needs (Hagerty et al., 1992). A sense of belonging is a crucial factor in enhancing professional identification (Zarshenas et al., 2014) and job satisfaction (Borrott et al., 2016).
Receptive Participation/Engagement	Describes the viewing or observing of visual art and/or the listening or touching of visual art for participants who are visually impaired.
Viewing	An inclusive term to encompass the receptive engagement of visual art (e.g., touching, hearing, and other sensory engagements with visual art among participants with visual impairments).
Visual Artwork	A creative object that can be viewed by a participant (e.g., photograph, sculpture, flower arrangement, painting, mural, digital media, etc.).
Wellbeing	The individual's capacity to balance challenges and opportunities in one's life via psychological, physical, social components (Dodge et al., 2012), and have the capacity to articulate a sense of purpose in their life (Pesata, et al., 2022).

Wellness

States of being that are (1) conscious, self-directed, and evolving process of achieving full potential; (2) multidimensional and holistic; (3) positive and affirming (Skarbek, et al., 2024). This is distinct from wellbeing in that wellness may apply to a corporate body (e.g., “the wellness industry”) and is often more affiliated with a person’s physical state (Global Wellness Institute, 2021)