## EXISTING RESEARCH ON ARTS IN HEALTH

### Heather L. Stuckey, DEd

Associate Professor of Medicine, Humanities and Public Health Sciences Pennsylvania State University College of Medicine

# Dartmouth-Hitchcock Arts and Humanities in Medicine Symposium

Objectives:

- To define arts and health/well-being research
- To review what we know about the arts and health/well-being research and what is missing
- To discuss mixed-methods research, particularly research measures and methods that could help in understanding research.
- To discuss what makes it difficult to conduct arts research.
- To help raise the bar on quality of arts in health research (publishing in medical journals)



Research does NOT limit your creativity as an artist, an art therapist, teacher, or any arts-based facilitator.

It has the potential to enhance it by helping you think about what you are really trying to accomplish and why you are running a program.

## What do we mean by research?

#### What is research in the arts?

Systematic evaluation of a process or program. It involves problem-solving and fact (or experience) checking.

#### What kinds of research are there that apply to the arts?

- Quantitative
- Qualitative
- Mixed Methods (both of them)
- Interventions

The shortest lesson on research you will ever receive

#### Quantitative

These are data that deal with quantities, values or numbers, making them measurable.

Examples: Weight, length of time in hospital, respiration rate, survey data on quality of life, distress, satisfaction

#### Qualitative

These are data that look at the meaning of an event or experience based on a research question.

Examples: Interviews to understand the experience of going to school with cystic fibrosis, observations to examine the shopping habits of people with diabetes

#### **Mixed Methods**

Combination of both of these; to explain (explanatory) or explore (exploratory)

## Research (continued)

#### Interventions

So, we gathered the data and think we have an idea we want to test.

#### We need to know:

- 1. Our research question or hypothesis (what we are trying to do)
- 2. Our population (the people who will receive the intervention)
- 3. The design of how we are going to do this (here, collaboration with researchers can help)
- 4. The outcomes (what we hope changes)

Why do you think it is difficult to conduct research in the arts and health?



# Where are we at in the field?



The most reliable resource is

#### PubMed

PubMed comprises more than 29 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites.

www.pubmed.gov

US National Library of Medicine National Institutes of Health



## Systematic or Scoping Reviews of the Literature

Where do we find information on what has been done? How do we know what research has been published in the arts and health?

http://www.health.ri.gov/healthcare/about/artsandhealth/

481 studies evaluating an the health effects of an artsbased intervention

## Recent Literature

(according to type of study)

#### PubMed search

 ((qualitative[Title/Abstract]) AND arts[Title/Abstract]) OR creativ[Title/Abstract]

Qualitative = 359 research articles

 (((quantitative[Title/Abstract]) OR survey[Title/Abstract]) AND arts[Title/Abstract]) OR creativ[Title/Abstract])

Quantitative = 468 research articles

#### QUALITATIVE

Understanding public perceptions of healing: An artsbased qualitative study

Complement Ther Med. 2019 Aug;45:25-32

Rahtz E, Warber SL, Dieppe P.

#### **BACKGROUND:**

We aimed to elucidate the views of members of the public about their healing, to help offer a better understanding to healthcare professionals.

#### **METHODS:**

Our **qualitative arts**-based drawing method invited people to respond using crayons and paper to the question 'What does the word healing mean to you?' These drawings were followed by a short recorded interview in which people explained their image.

We used convenience sampling to approach members of the public visiting a large wellbeing show and a museum. We analysed images and interviews in tandem using a focus on metaphor.

#### QUALITATIVE

#### Continued

Complement Ther Med. 2019 Aug;45:25-32

Rahtz E, Warber SL, Dieppe P.

**RESULTS:** Participants' images and interviews (N=59)documented 3 main models of the healing process:

i) Healing comes from a great external force, exemplified by the sun;

ii) Healing comes from other people, whether medical professionals, CAM practitioners or healers; and

iii) Healing comes from within, and the individual has the ability to self-heal.

People described practices and inner states that could help achieve healing. Some people depicted more than one model, demonstrating the interlinkages between the models, and some described the outcome of healing (wholeness) rather than the process.

#### **CONCLUSIONS:**

The drawing-based approach encouraged an intuitive way of thinking, capturing concepts that cannot easily be verbalised. The models our participants described often interlink, suggesting an overarching framework for the way people conceive of healing. The findings may be useful both as a guide to further research and as insight that may facilitate healthcare processes.

#### QUANTITATIVE

Arts for aging well: a propensity score matching analysis of the effects of arts engagement on holistic well-being among older Asian adults above 50 years of age.

BMJ Open. 2019 Nov 21;9(11):e029555. doi: 10.1136/bmjopen-2019-029555.

<u>Ho AHY, Ma SHX, Ho MR, Pang</u> JSM, Ortega E, Bajpai R

#### **OBJECTIVE:**

To examine the relationships between participatory art and holistic well-being.

#### **PARTICIPANTS:**

1067 community-dwelling, Singaporean older adults (50-95)

#### PRIMARY AND SECONDARY OUTCOME MEASURES:

Cross-sectional household questionnaire, assessing the frequencies and durations of participatory arts engagement, as well as psychometric assessments on psycho-socio-spiritual health including the primary outcome measure: (1) quality of life, and the secondary outcome measures on (2) physical, psychological, emotional, spiritual, and social well-being.

#### QUANTITATIVE

#### Continued

<u>BMJ Open.</u> 2019 Nov 21;9(11):e029555. doi: 10.1136/bmjopen-2019-029555.

<u>Ho AHY, Ma SHX, Ho MR, Pang</u> JSM, Ortega E, Bajpai R

#### **RESULTS:**

Passive engagement (60%) and active engagement (17%) in the **arts were associated with better holistic wellness and social support.** Specifically, findings from the propensity score matching and independent t-test analyses revealed that adults >age 50 who passively engaged in arts and culture-related events experienced higher quality of life, perceived health and sense of belonging, compared with those who did not.

Those who actively engaged in participatory arts experienced greater quality of life, self-rated health, spiritual well-being, meaning in life and sense of peace, as compared with those who did not actively engage in the arts.

#### **CONCLUSION:**

This study provided robust evidence to support a significant causal relationship between arts engagements and holistic wellbeing. Recommendations for art-based public health and elderly care research, practice and policy are discussed.

#### MIXED METHODS

B!RTH: a mixedmethods survey of audience members' reflections of a global women's health arts and science programme.

BMJ Open. 2019 Dec 30;9(12):e027531.

McCauley M, Thomas J, Connor C, van den Broek N

#### **OBJECTIVE:**

The B!RTH programme is a partnership that uses theatre in combination with scientific expert panel discussions to raise awareness about the global inequality in women's health and access to healthcare. As part of this project, we assessed the views and experiences of audiences participating in B!RTH events.

#### **DESIGN:**

We conducted a multi-site mixed-methods survey using paperbased questionnaires (with open- and-closed ended questions)

#### SETTING:

Data were collected at four B!RTH theatre and science events: Dublin (Ireland), Edinburgh (Scotland), Geneva (Switzerland) and Liverpool (England) after the performance of 4 plays and 3 expert panels.

**PARTICIPANTS:** All audience members.

#### **MIXED METHODS**

Continued

BMJ Open. 2019 Dec 30;9(12):e027531.

McCauley M, Thomas J, Connor C, van den Broek N

#### **METHODS:**

Descriptive analysis was conducted for the closed-ended survey questions, and thematic analysis was used for written free text.

#### **RESULTS:**

The response rate was 42%; 363 members responded. Most respondents had been emotionally moved by the performances (92.8%) and felt challenged and provoked (80.7%). Many respondents (73.6%) agreed that their eyes had been opened by new ideas.

Five themes emerged from the free-text analysis: (1) an expression of thanks and positive feedback on the content and performance of the plays, (2) the benefit of and innovative use of art and science, (3) personal feelings in response to the plays and panel discussions, (4) the need for action and (5) suggestions for use of the plays and panel discussions in schools and universities,

to 'bring to life the human story behind the statistics'.

#### **MIXED METHODS**

Continued

BMJ Open. 2019 Dec 30;9(12):e027531.

<u>McCauley M</u>, <u>Thomas J</u>, <u>Connor</u> <u>C</u>, <u>van den Broek N</u>

#### **CONCLUSIONS:**

The B!RTH programme highlights how art and science can be used in partnership, and is an effective tool to engage the public to deliver key messages about inequalities in global maternal and reproductive healthcare issues.

https://www.birthdebate.com/

This review article examines current knowledge about the efficacy of art therapy based on the findings of 8 randomized controlled trials (RCTs) conducted with adult populations from 2008–2013 that met a high standard of rigor. Of these studies, all but one reported beneficial effects of art therapy. Review findings suggest that art therapy may benefit a range of individuals, including older adults, war veterans, and prison inmates. However, there is a need for further research using RCTs to examine more conclusively art therapy outcomes and the specific populations in which art therapy interventions offer greatest benefit.

Annick Maujean, Christopher A. Pepping & Elizabeth Kendall (2014) A Systematic Review of Randomized Controlled Studies of Art Therapy, Art Therapy, 31:1, 37-44, DOI: <u>10.1080/07421656.2014.873696</u>

## Systematic Reviews

## Systematic or Scoping Reviews of the Literature

## The Connection Between Art, Healing, and Public Health: A Review of Current Literature

Heather L. Stuckey, DEd, and Jeremy Nobel, MD, MPH

This review explores the relationship between engagement with the creative arts and health outcomes, specifically the health effects of music engagement, visual arts therapy, movement-based creative expression, and expressive writing. Although there is evidence that art-based interventions are effective in reducing adverse physiological and psychological outcomes, the extent to which these interventions enhance health status is largely unknown. Our hope is to establish a foundation for continued investigation into this subject and to generate further interest in researching the complexities of engagement with the arts and health. (*Am J Public Health*. 2010;100:254–263. doi:10.2105/AJPH. 2008.156497)



## Frequent Quantitative Assessments



## Quality of Life

**Common Quantitative Measures** 

 QOL- Generics are SF-36 (and short forms of SF-12 and SF6) – (no cost associated, but need to have permission)

The SF-36 (cost associated) is easy to administer, covers a broad range of domains of health-related quality of life, and is among the most widely used of such measures. Availability of population-based normative data makes the SF-36 useful for comparative purposes.

Because the SF-36 is a generic measure, investigators studying MS may want to augment the SF-36 with other measures that tap ways in which the condition you are studying more specifically affects quality of life such as fatigue, cognition, vision, etc. There are often quality of life measures for disease-specific conditions.

## Quality of Life (Continued)

**Common Quantitative Measures** 

- Or a shorter version, EuroQual-5D (creates health states and utility values; physical and mental well-being)
- World Health Organization Quality of Life-BREF (WHOQOL-BREF)

The aim was to develop an international cross-culturally comparable quality of life assessment instrument. It assesses the individual's perceptions in the context of their culture and value systems, and their personal goals, standards and concerns..

The WHOQOL-BREF instrument comprises 26 items, which measure the following broad domains: physical health, psychological health, social relationships, and environment. The WHOQOL-BREF is a shorter version of the original instrument that may be more convenient for use in large research studies or clinical trials.



Stress

**Common Quantitative Measures** 

 Stress - Not generally looked at as an outcome, but more of a mechanism. Generics include macro-stressors (life events) and micro-stressors (hassles).

Macro – "I lost my foot due to diabetes." Micro – "I am not able to get a podiatry appointment."

Original – Holmes and Rahe (Life events scale) Social Readjustment Rating Scale (SRRS)

Life Event	Mean Value
1. Death of spouse	100
2. Divorce	73
3. Marital Separation from mate	65
4. Detention in jail or other institution	63
5. Death of a close family member	63
6. Major personal injury or illness	53
7. Marriage	50
8. Being fired at work	47
9. Marital reconciliation with mate	45
10. Retirement from work	45
11. Major change in the health or behavior of a family member	44
12. Pregnancy	40
13. Sexual Difficulties	39
14. Gaining a new family member (i.e., birth, adoption, older adult moving in, etc)	39
15. Major business readjustment	39
16. Major change in financial state (i.e., a lot worse or better off than usual)	38
17. Death of a close friend	37
18. Changing to a different line of work	36



## Anxiety

**Common Quantitative Measures** 

Anxiety - State anxiety scale of Spielberger State-Trait Anxiety Inventory (STAI)

It can be used in clinical settings to diagnose anxiety and to distinguish it from depressive syndromes. It also is often used in research as an indicator of caregiver distress.

The most popular version has 20 items for assessing trait anxiety and 20 for state anxiety. State anxiety items include: "I am tense; I am worried" and "I feel calm; I feel secure." Trait anxiety items include: "I worry too much over something that really doesn't matter" and "I am content; I am a steady person."

All items are rated on a 4-point scale (e.g., from "Almost Never" to "Almost Always"). Higher scores indicate greater anxiety.



## Depression

Common Quantitative Measures

Depression – The Patient Health Questionnaire-9 (PHQ-9)

In addition to making criteria-based diagnoses of depressive disorders, the PHQ-9 is also a reliable and valid measure of depression severity. These characteristics plus its brevity make the PHQ-9 a useful clinical and research tool.



## Physical Well-Being

Common Quantitative Measures

Physical Well-being – Physical Component Summary from measure of QOL (SF-36):

Physical Functioning Role Physical Bodily Pain General Health

For Example:

Physical Functioning: The following questions are about activities you might do during a typical day. Does YOUR HEALTH NOW LIMIT YOU in these activities? If so, how much?

PF1 VIGOROUS activities such as running, lifting heavy objects, participating in strenuous sports

PF2 MODERATE activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf

PF<sub>3</sub> Lifting or carrying groceries



## **Qualitative Research**

## Where does qualitative research fit?

#### Exploratory or pilot work

The first way of thinking about the place of qualitative work in large research programs is that of initial exploration, or hypothesis generation.

#### Adding 'depth' or understanding findings from quantitative data

The second logical position a qualitative study can have within a broader .program is as a successor to quantitative work.

#### Parallel studies

Finally, qualitative and quantitative research questions on the same topic may be undertaken simultaneously, within mixed methods studies, with the aim of extending our understanding of a phenomenon.

## What do you need to identify?

- Research Question
- Inclusion/exclusion criteria
- Sample size (depth rather than breadth)
- Design (individual interviews, group interviews, observation); phone, in-person
- IRB Approval for Human Subjects

## Qualitative Research Steps in a:



The idiom, "in a nutshell" is used when you want to say that the description you're giving is concise, tothe-point and brief. It is the information boiled down to its simplest form. The question is: where do nuts enter this equation?



- 1. Transcription (Rev.com)
- 2. Become familiar with the data
- 3. Codebook development:

Codes could refer to substantive things (particular behaviors, incidents or structures), values (such as a belief in evidence-based medicine or in patient choice), emotions (sorrow, love). Codes could be a priori determined.

- 4. Inter-rater reliability
- 5. Develop an analytical model
- 6. Apply the analytical model



Research allows us to understand what works and systematically improve the lives of patients, clients and participants.

## Why should we all think about research?

#### Some things to think about:

If we say that the arts (or creative expression) can't be measured or defined, then we will not help to move the field forward.

If we can't move the field forward, we won't get credibility and we won't get noticed in scientific journals.

If we don't get noticed in scientific journals, then we won't get substantial funding.

# The latest, in progress

American Journal of Public Health

#### Health Communication and the Arts: A Scoping Review

Jill Sonke, UF Center for Arts and Medicine, jsonke@arts.ufl.edu

Kelley Sams, MPH, PhD, UF Center for Arts and Medicine, kcs@ufl.edu

Jane Morgan-Daniel, MLIS, MA, AHIP, UF Health Science Center Libraries, morgandanie.jane@ufl.edu

Nancy Schaefer, MLIS, UF Health Science Center Libraries, nancys@ufl.edu

Virginia Pesata, UF Center for Arts and Medicine, pesata@ufl.edu

Heather Stuckey, Pennsylvania State University, <u>hstuckey@pennstatehealth.psu.edu</u>



# Collaboration is everything.