Using Art Conversations as Social Engagement Through Defined Art Categories to Stimulate Responses from People Living with Dementia

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Abstract

Dementia is a very isolating disease, and social engagement is crucial to increase quality of life and cognitive stimulation. This study aims to investigate how art museum interventions can be used as a method of social engagement. Additionally, this study seeks to identify which categories of art are most engaging for people with dementia. Art museum sessions were conducted in 2014 and 2015 at the University of Illinois Urbana-Champaign Krannert Art Museum, and in 2016, they took place in a dementia-specific facility. The mood of the participants was assessed before and after each session using the "Smiley Face Assessment" (Yang, 2004). Participants engaged in discussions surrounding various categories of art. Both verbal and non-verbal responses were recorded. All conversations were transcribed and coded for later analysis. The different types of art were organized and coded by subject matter, style, and dimensionality. Figurative, contemporary, and two-dimensional pieces were shown to stimulate the most social engagement with 16.76% of comments, followed by figurative, realistic and two-dimensional pieces with 16.26% of comments. Interpretive comments and creating questions were the most prevalent type of comments within figurative, contemporary, and two-dimensional pieces, with percentages 12.83% and 1.89% respectively. The results indicate which types of art created the most social engagement and are consistent with existing literature regarding the benefits of art museum interventions for people with dementia.

Keywords: Social Engagement, Dementia, Alzheimer's, Art Museum.

Introduction

Dementia can be defined in several ways. For the purpose of this study, dementia can be described as a variety of neurological conditions characterized by decline in cognition and communication skills. Dementia is progressive and can have significant effects on mood,

behavior, and the ability to carry out activities of daily living (Camic et al., 2015). Pharmacological interventions are used to manage symptoms of dementia; however, many non-pharmacological interventions exist to improve quality of life, maintain levels of cognition, and elicit social engagement as well. Social engagement can be characterized as the involvement in social activities and the establishment and maintenance of social relationships (Zhou et al., 2018). For example, in a memory care setting, social engagement may take form in activities such as exercise classes, board games, listening to and making music, and through staff-facilitated discussions with residents. Art engagement is a common non-pharmacological intervention, and existing literature suggests art engagement has many benefits for people with dementia. While cognitive functions are lost as dementia progresses, "aesthetic responses" or the ability to observe and comment on artistic pieces is maintained for a longer period (Camic et al., 2015, p. 1,034). Therefore, participating in art viewing and art discussions offers opportunities for ongoing exploration for people with dementia (Camic et al., 2015). Additionally, individuals with dementia have been shown to be valuable participants when viewing art. Halpern and O'Connor's research evaluating frontotemporal dementia found the process of dementia did not impact individuals' ability to analyze and evaluate art pieces (2013). People with dementia can execute "symbolic processing" (Halpern & O'Connor, 2013, p. 98). Even though a brain may be affected by dementia, it is still able to meaningfully gather information and an understanding of the art being shown in an art museum intervention (Halpern & O'Connor, 2013).

Art museums are common settings for people to participate in art engagement. Some museums have designed programs specifically for people with dementia that include both art viewing and art making. An art gallery setting may provide a physically valued environment for people with dementia that is both intellectually stimulating and socially inclusive (Camic et al.,

2015). People with dementia are often perceived as being incompetent, having a disability, an inability to focus and engage for extended periods of time, and inability to participate in activities. These perceptions contribute to a negative stigma of dementia, which may result in low self-esteem and social exclusion for people with dementia (Mukadam & Livingston, 2012). Individuals with dementia often can be given "extra-disabilities," meaning they are underrated for their ability to participate in social engagement activities and the impacts of their dementia are overestimated (Ullán et al., 2013, p. 28).

Art museum-based interventions have the potential to change negative preconceived notions of individuals with dementia in society, as well as building a positive perception of self for those living with dementia. For example, a 2015 study found both caregivers and art gallery docents were surprised and impressed with significant levels of engagement of those with dementia participating in art discussions during a museum-based intervention. Perceptions of those with dementia changed as caregivers and docents saw participants as competent individuals who still possessed creative, social, and intellectual capacities (Camic et al., 2015).

Across the world, art museum-based programs have demonstrated how art engagement benefits people with dementia. Programs such as Meet Me at MoMA- Museum of Modern Art program and the ARTEMIS intervention provide foundational research on how these programs affect social engagement and quality of life of people with dementia. The ARTEMIS intervention yielded positive outcomes for participant quality of life and emotional wellbeing (Schall et al., 2018). The Meet Me at MoMA program has found art engagement can allow those with dementia to participate in meaningful activities, retrieve long-term memories, and participate in social discussions as equal, valued contributors (Rosenberg, 2009). In a foundational study, the incorporation of museum props and other significant objects beneficially

impacted general patients of hospitals in a study by University College London Museum & Collections and University College London Hospitals Arts. Well-being and moods were evaluated on a scale and a list of moods. The research highlighted how social engagement programs established a "person-centered" approach in patient care across all settings (Chatterjee, Vreeland, & Noble, 2009, p. 170). While the props in the study created an educational experience for participants, the incorporation of objects also related personally to the participants and prompted individuals' memories in the research (Chatterjee, Vreeland, & Noble, 2009). The eliciting of memories established another frontier of museum object research and its patient benefits in "reminiscence" interventions (Chatterjee, Vreeland, & Noble, 2009, p. 170).

While current literature goes into great depth regarding the benefits that art-viewing and art-making has for people with dementia, there is an existing gap in terms of how specific types of art influence levels of social engagement in this population. This study seeks to address this gap by exploring the association between type of art and social engagement for people with dementia.

Methods

Participants were not selected based on specific dementia types. In 2014 and 2015**,** individuals from a medium-sized adult day center in Illinois volunteered to visit Krannert Art Museum. They were transported to the museum in the adult day center's vehicle and accompanied by staff. Participants all had some form of dementia, but they were not selected based on specific dementia types. Because of their form of dementia, participants were unable to be left alone without supervision. In 2016, sessions took place in a 24-hour, dementia-specific residential facility. Participants' gender was considered along with mood in the research; however, factors such as socioeconomic status were not accounted for in the research process.

There were no control groups in the research. The consent process involved co-investigators, the caretakers, and the program participants. The decision-maker on the adult day center's record first gave consent for their loved one to participate in the study. In addition, the IRB consent script was read before and after the art was shown. The investigator would ask these participants individually if they wanted to complete a "Smiley Face Assessment" survey (Yang, 2004). For the dementia-specific facility, consent was given by the facility administrator according to the IRB consent process. Anyone who attended the program and willingly completed the survey was included in the study. The docents were trained to ask open-ended questions to create an open and welcoming environment for participants. The docents in the museum sessions were specifically trained to communicate with people with dementia. The museum sessions and the 24-hour care facility sessions were identical in the process of the art viewing, but individuals in the 24-hour care facility could leave more easily. Most participants at the museum used seated walkers, which were purchased with a grant, in order to prevent tiring and provide safe seating. In the facility, most participants used wheelchairs and other forms of assistive devices. Sessions lasted 45-60 minutes. Since the program was voluntary, there were some participants who only completed one session, while others may have attended and completed several surveys for different sessions.

This study uses a cross-sectional design in order to assess social engagement. Art pieces and props were incorporated into art viewing sessions. A "Smiley Face Assessment" was given to participants before and after each museum session (Yang, 2004). Participants would rate their mood on this scale from being very sad, somewhat sad, neutral, and somewhat happy, to very happy. Social engagement determined the number of comments. During the museum sessions

and facility sessions, participant comments were transcribed and later categorized organizing the comments into several categories. There were 17 comment categories, as noted in Figure 2.

The art pieces observed in the various museum sessions and facility sessions were categorized to analyze the relationship between the art types and different participant responses. For the subject of the pieces, artworks were organized by nature, abstract, figurative, portrait, functional object, or other. Nature landscapes contained subject matter of natural landscapes. Abstract pieces focused on shapes and colors to depict moods and feelings within the specific works of art. Figurative pieces contained people in the art pieces and had narratives of day-to-day life depicted in their content. Portraits were pieces that included closeup representations of the human face or torso. Functional object pieces were often touchable and from the Krannert Art Museum Education Center. For the second type of art category, the styles of pieces were organized by being contemporary, modern, realistic, or other. Contemporary art pieces reflected some aspects of daily life, but the contemporary art pieces changed this content to make the subject matter unclear. Modern pieces often depicted daily life, but the modern pieces changed the content to share specific moods and feelings with the audience. Realistic pieces depicted scenes from real life. To categorize the different dimensionality of the pieces, the artworks were organized by being two-dimensional or three-dimensional.

All statistical analyses were done in SAS v9.4. Some participants attended several sessions, while others attended only once. To explore the association between art pieces and social engagement, each participant was allotted a unique ID. Wilcoxon signed rank test was conducted to measure the change in mood of the participants before and after art engagement experience at the museum and the facility using the “Smiley Face Assessment” (Yang, 2004) due to non-normality of the data.

Results

Sample sizes were N=53, N=21, and N=14 for the years 2014, 2015, and 2016 respectively. Throughout the different museum and facility sessions, there were a total of 88 participants. In Figure 1, the data explored which combination of art types established the greatest social engagement. The combination that received the highest proportion of comments was figurative, contemporary, and two-dimensional art pieces, with 16.76% of comments. Figurative art types also received the most comments because they were shown the most to participants. The most prevalent comment type in the museum sessions was an interpretive response, as this category comprised 57.14% of comments made. Interpretive responses were responses where participants sharing their on-topic interpretations of artworks. On-topic interpretations of the art pieces showed how the participants were able to meaningfully participate in an art discussion. An interpretive response also was meaningful because it was a more abstract and complex comment type compared to other comments responses, such as descriptive responses.

Descriptive comments were the second most prevalent in the data collected, representing 14.58% of the total comments. Descriptive responses demonstrate participants' perspectives by giving details relating to the art piece. Group responses were an additional common category of comments, accounting for 11.37% of comments collected. This was a crucial result because it depicted how research participants connected to each other while they were partaking in this form of social engagement. Being able to connect to the responses of other participants and respond together collectively highlights a deeper layer of social engagement. Another common type of comment was a "CQ" comment, forming 10.64% of comments total. This comment categorization meant participants created their own art question. The creation of a question

showed how the participants felt engaged in the art museum sessions and wanted to extend their knowledge. Lastly, a response similar to a group response was an "RP" response or a response building off another participant's response. "RP" comments constituted 6.27% of the data. This further established how participants connected to one-another while they explored the art pieces in the different museum sessions. These results show even though a brain with dementia may see things differently due to the disease process, the creative part of the brain is still active.

The participants did not go through a significant change in their moods after art engagement experience across all three years [2014: S=1475, p= 1.0; 2015: S=380, p= 0.3416; 2016: S=189.5, p= 0.5342]. Across all years, there were minimal changes in mood with each before and after survey, deeming these results not statistically significant.

Discussion

The study aimed to explore how art museum interventions are associated with levels of social engagement in people with dementia, as well as which specific types of art elicit the most engagement. Engagement was determined through types of verbal and non-verbal responses; the most prevalent being interpretive, descriptive responses, group responses, creating questions, and responses to others. It is clear social engagement was present during the art discussions. Participants interacted not only with the docent but also with one another, responding to comments and forming their own interpretations of the various art pieces. These findings are consistent with existing literature in the sense that art museum interventions have the potential to create a social engagement experience in people with dementia. Results of this study also indicate art classified as figurative, contemporary, and two-dimensional may evoke more engagement in people with dementia. Unlike existing literature, this study specifies how different

types of art affect social engagement, which has the potential to set a foundation for future art-museum and dementia-care-based research.

Limitations of this study are mainly a reflection of the population on which this study focuses: individuals with dementia. However, these limitations should be noted and should guide future research. One limitation is the sample size for each year was dependent on individuals who had the desire to attend the art engagement sessions voluntarily. For example, for data collected at the facility, some people stated they were not feeling well and did not want to participate in the activity anymore. In those cases, they were able to return to their rooms and were not included in the data collection. As a result, there are varying sample sizes for each year. During the year 2015, sessions were cancelled for 3 months, as snow and ice caused unsafe walking conditions at the museum. Consequently, data could not be collected during those months. Additionally, the dementia-specific facility used for this study utilizes the Green House approach to dementia care (The Green House Project). The Green House approach aims to foster a home-like environment, meaning there is only a small number of residents living in each house. Due to the intimate nature of the facility and the voluntary participation, there was a smaller pool of participants available, leaving sample sizes rather small and inconsistent throughout the 3 years of data collection. In future research opportunities, larger sample sizes should be achieved through using a larger dementia-specific facility and obtaining more funding.

While data regarding mood in relation to art engagement was collected, a consistent pattern of improvement or worsening of mood could not be found in this dataset. After further reflection, researchers believe the method in which the assessment was administered to the sample may have been confusing given their dementia diagnosis. Participants were given the "Smiley Face Assessment" scale and were instructed to circle the image best representing their

feelings at the time. However, some markings were unclear. Future research opportunities to explore a possible relationship between mood and art engagement for this population might include using this same scale, but instead capturing responses orally in the form of an interview or conversation.

Another limitation to this study is that, apart from gender, demographic data such as age, race, socioeconomic status, and level of education was not collected. Having demographic information in the future may lead to a deeper analysis of the results. Additionally, as mentioned before, the type of dementia was not specified in this study. Therefore, at this time it is unknown whether types of dementia and demographic factors have a confounding influence on the data collected, and this may affect validity of the results. To further expand the research, data about participants' dementia types and other demographic factors could be collected. Studying these factors could illuminate different findings about how specific demographics respond to different works of art. Collecting more data about the participants could establish a greater impact. Social engagement activities could be altered to suit the needs of diverse dementia populations in society.

The results found in this study have vast implications for social work practice, specifically in the realm of dementia care. Being aware of the positive effects that art has on cognition and social engagement for people with dementia can aid caregivers in the home as well as within facilities when developing art-related interventions. In the same notion, this information offers future art museum potential to direct their dementia-based programming to specific types of art. In both contexts, knowing specific types of art that may elicit the most social engagement will ultimately foster more meaningful discussions and participation in these activities.

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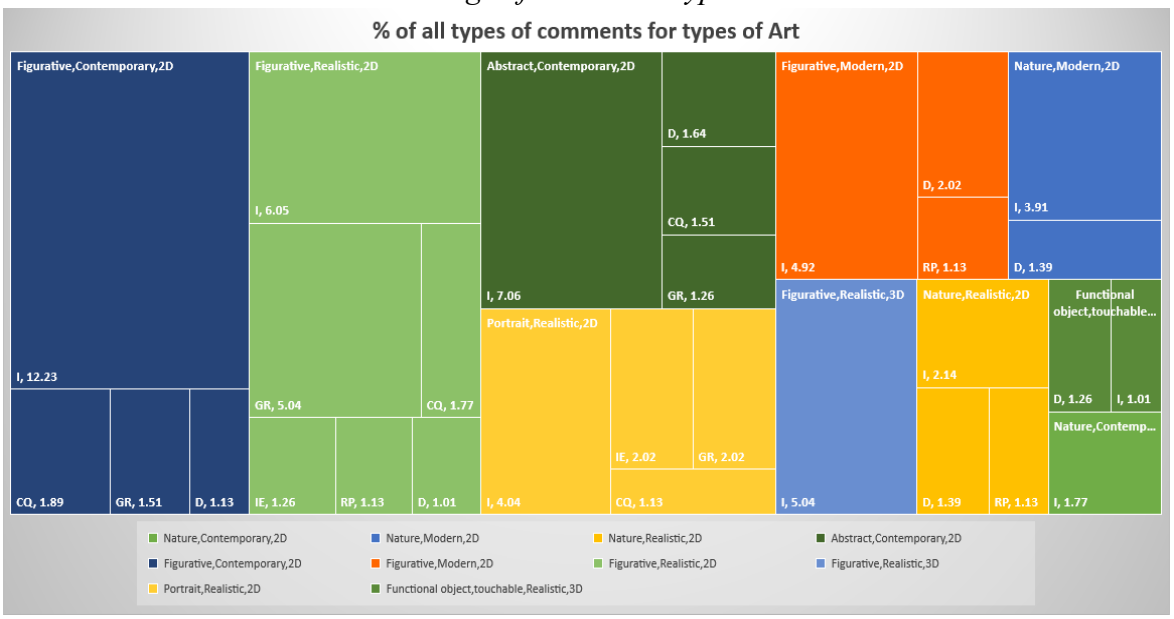
Figures

Figure 1

The Art Combinations and Percentage of Comment Types



Note: To produce this tree map, all comment percentages smaller than 1% were excluded in order to show a clean and concise presentation of the data.

Figure 2

Coding of Comments and Art

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Coding of Comments

D= Descriptive response, relates to docent's question

I= Interpretive response, relates to docent's question

IE= Interpretive response with emotion sound

DI= Descriptive or interpretive response, but not sure how it relates to the artwork

RA= Response making a connection between artwork and personal memory

PK= Response making a connection to prior knowledge

RP= Response relating to or building from another participant's response

CQ= Creating own question about art

OQ= Off-topic, creating own question

OR= Off-topic response

NVG= Non-verbal response using gestures

S= Sleeping during docent's question

PR= Prop response

RG= Response using gestures

SR= Non- word response of sound

GR= Group response

SC= Same response

Art Categories

Type of Art 1:

- 1= Nature
- 2= Abstract
- 3= Figurative
- 4= Portrait
- 5= Functional object, touchable
- 6= Other

Type of Art 2:

- 1= Contemporary
- 2= Modern
- 3= Realistic
- 4= Other

Type of Art 3:

- 1= 2D
- 2= 3D

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