Museum-based creative arts programming is associated with less dementia patient apathy and better caregiver well-being

Hannah J Roberts,1 Carolyn Halpin-Healy,2 Rebecca McGinnis3 and James M Noble MD MS CPH,
1Columbia University College of Physicians & Surgeons, 2Arts & Minds, 3Metropolitan Museum of Art, 4Department of Neurology, Columbia University Medical Center,
5Taub Institute for Research on Alzheimer’s Disease and the Aging Brain, Columbia University; New York, NY

Background:
- Alzheimer’s disease and related disorders (ADRD) adversely impact personal and professional caregivers
  - General medical health
  - Quality of life
  - Mood
- Cognitive leisure activities are associated with delayed dementia onset
- Effect on dementia outcomes is uncertain
- Art programs have been explored in many neurologic and psychiatric conditions
- Demand for AD art programs in major museums has been rising since 2006
- Existing programs involve a 90-minute session for AD patients and caregivers that include open gallery discussion and/or studio projects such as drawing, painting, collage, or sculpting
- Little formal research involving art and AD care has been conducted.

Methods:
- Design: Pilot study of an observational cohort, including professional caregivers
  - Professional caregivers
- Assessments: Surveys administered by phone to caregivers to assess QOL, caregiver burden, self-efficacy, well-being, and patient apathy.

Aims:
- To study the potential impact of art-centered museum based programs on caregiver burden and patient apathy.

Hypothesis:
- Art-centered experiences may improve caregiver burden and well-being.

Results:

Table 1. Participant Characteristics

<table>
<thead>
<tr>
<th>Measure</th>
<th>Caregivers (n=12)</th>
<th>Patients (n=8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (median)</td>
<td>66 (46-77)</td>
<td>74 (66-89)</td>
</tr>
<tr>
<td>Female, n (%)</td>
<td>10 (83)</td>
<td>3 (38)</td>
</tr>
<tr>
<td>Relationship</td>
<td>Spouse 7</td>
<td>Child 3</td>
</tr>
<tr>
<td></td>
<td>Professional 1</td>
<td>Friend 1</td>
</tr>
<tr>
<td>Depression, n (%)</td>
<td>5 (42)</td>
<td>1 (13)</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>NHW 6</td>
<td>3</td>
</tr>
<tr>
<td>Education</td>
<td>HS/Some College 1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>College/Grad 5</td>
<td></td>
</tr>
<tr>
<td>If Museum Visits/Yr, Median (Range)</td>
<td>17 (0-96)</td>
<td>27 (0-96)</td>
</tr>
</tbody>
</table>

Table 2. Principal Findings

<table>
<thead>
<tr>
<th>Domain</th>
<th>Caregiver</th>
<th>Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td></td>
<td></td>
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<tr>
<td>SF-8M</td>
<td></td>
<td></td>
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<tr>
<td>SF-8P</td>
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<tr>
<td>WHO-5</td>
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<tr>
<td>SES sub-domain</td>
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<tr>
<td>Zarit Index</td>
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<tr>
<td>SE Scale</td>
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<tr>
<td>DEMQoL-U-Proxy</td>
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</tbody>
</table>

Score (Good/Bad) 4-16

| Age (median)  | 2.5 (0.46) | 1.27 (0.45) | 25 (0.25) | 0.15 (0.10) | 12 (0.12) |
| Depression    | -0.21 (0.09) | 0.29 (0.20) | 0.49 (0.20) | 0.36 (0.25) | 0.10 (0.20) | 0.27 (0.10) |
| Programs attended in year | 7.9 (5.0) | -10.4 (7.4) |

Univariate regression models presented, β (SE). All models performed, those with p<0.20 presented in table. Green boxes: p ≤ 0.05 (SE). All models performed, those with p<0.20 presented in table. Green boxes: p ≤ 0.05 (SE).

“[This program] makes my day. It gives me new ways to engage that I can take home. It has been transformative for us. After the touch object session I went home and did the same with objects from her own art collection. After the [engaging the senses] activity in the courtyard, I went home and made a garden with a fountain in her own courtyard.” —Caregiver

“Looking at art and listening to the active dialogue saves me from my alone-ness. It is a time for my husband and I to bond and communicate. I feel comfortable sharing with everyone.” —Caregiver

“I like visiting the galleries and seeing the pictures. It makes me happier.” —Patient

References:

Acknowledgements & Disclosures:
- Study funded by Taub Institute for Research on Alzheimer’s Disease and the Aging Brain and a grant from The Cloisters, which served as the setting for the program sites. The effect of this & other programs was not explored in this research.
- MS Noble serves as a consultant for neurodegenerative disorders in the New York area. Dr. Noble serves in a volunteer capacity as the president of Arts & Minds, which served as the setting for the program sites. The effect of this & other programs was not explored in this research.
- bias may influence findings, but these programs could independently impact outcomes explored in the study.
- Some psychological stress may be experienced while discussing illness.

Discussion:
Key findings:
- Increased participation in museum based activities over the past year was associated with improved caregiver indices and dementia patient apathy in both quantitative and qualitative findings.
- Study was feasible, generalizable, and potentially cost-effective.
- Takes advantage of existent programs likely available in many communities.
- Some psychological stress may be experienced while discussing illness.

Limitations:
- Small sample size
- Cross-sectional study
- Participant bias
- Most subjects had already been enrolled in available art programs.
- New slots in available programs are not routinely available.
- Relatively uniform demographics
- Gender and education

Conclusions:
- Association between the frequency or quantity of arts programs attended and AD caregiver burden and apathy warrants further study.
- Bias may influence findings, but these programs could independently impact outcomes explored in the study.

Future directions:
- Randomized Control Trial
- Longitudinal study
- Cost-efficacy of art programs

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