

Art and Alzheimer dementia

A museum experience for patients may benefit medical students

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In this issue of *Neurology*®, Roberts and Noble¹ describe a pilot study of an intervention designed to change medical students' perceptions of dementia by having students participate in a museum-based arts program for persons with dementia and their caregivers in New York City. In a single 90-minute session, preclerkship students joined 6–10 pairs of patients with dementia and caregivers (one student per group) for their activities, including responding to art works in galleries and creating art in the studio. On pretests and post-tests using the Dementia Attitude Scale (DAS), the 20 students in this study experienced positive changes in their attitudes toward dementia, with greatest gains in their comfort level.

Participation in this program changed students' DAS by 8–10 points overall, with a significant 5.9-point improvement in comfort scores and a smaller, 2.6-point increase in knowledge scores. The authors carefully ruled out changes derived solely from repeating the DAS. Another study involving students in a 4-week program led to a 16-point improvement, again with greater changes in comfort.²

Art museum programs for persons with dementia and their caregivers are well-established in many localities. While a cultural center like New York City has abundant galleries, several with offerings of this kind, smaller cities and towns now also boast such museum-based outreach programming aiming to improve quality of life for persons with dementia and their caregivers. Putting the arts to work amid our aging nation's silver tsunami and a rising tide of dementia has payoffs that help us all to address a state of being that frustrates and frightens us deeply. Arts programs in which patients with Alzheimer or other dementia respond to or make art demonstrate that mild to moderate dementia, while it robs someone of memory and words, does not preclude insightful, creative engagement with art and meaningful emotional connection with others via viewing or making art. Indeed, these findings helpfully counterbalance prevailing biomedical approaches to dementia, which document patients' successive losses and seek to deter further deterioration, and customary social narratives, which tend to focus on the burdensome sadness,

distress, and bereavement inherent in a dementia diagnosis and dementia care.

Roberts and Noble's study goes further to ask about and assess potential benefits to medical students of participating in arts programming alongside patients with dementia and caregivers. Medical students are no better prepared than the rest of us to care for persons with dementia. Their exposure to dementia before or during medical school may be limited to advanced or end-stage disease seen in hospitals or nursing homes; even students whose families include beloved elders with dementia (as was true for fully half the students in this study) may find the condition profoundly intimidating and the prospect of working with its sufferers daunting and heartbreaking.

Museum-based education for medical students is on the rise for other purposes. At several medical schools, including our own, medical professors and museum educators partner in the art gallery on workshops to improve learners' clinical skills.^{3–7} Visual analysis training forms the core of interactive exercises with works of art designed to slow down participants' looking and give them practice in mindful attention, description, and interpretation (and respecting the difference between the two), and communication.^{8,9} While schools organize their programs differently, common goals include engaging and enhancing visual literacy, pattern recognition, verbal and listening facilities, tolerance for ambiguity and uncertainty, and cultural openness. These skills in turn help refine core clinical competencies: diagnostic acumen, communication, collaboration, compassion, self-awareness, and reflection. Learners make substantial gains in targeted skills after just a single museum workshop, usually 2 hours in duration. At our school, such arts-based visual analysis training, known as Clinician's Eye, is required.¹⁰

Roberts and Noble report students' comments (table e-1 in the article), which dramatically speak their greater comfort in the presence of persons with dementia: their increased ease with how dementia and caregiving have recognizably human faces; their relief at seeing these individuals relate enthusiastically and meaningfully both to art and to their caregivers; their distinct pleasure at observing patients' daily lives outside medical

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environments; and their satisfaction at participating in activities that exercise persons' continuing capabilities rather than consign them to early social death.¹¹

This study invites further research. How prolonged are the positive effects in medical students? Will these attitudinal improvements translate into improved patient care and outcomes? Will similar results hold for students who do not voluntarily enroll or whose attitudes on pretest are below neutral? Students in this study, all volunteers, started with attitudes on the positive side of neutral (baseline on DAS = 97.4; neutral = 80, range = 20–140). Medical educators will want more information before investing in or requiring an experience like this. In communities like ours where museums already host arts programming for patients with dementia and caregivers, might medical schools follow these investigators' lead by involving students and studying their response? (At the University of Virginia, we will want to do this). More broadly, might encountering persons with dementia outside of clinical settings positively inflect medical students' attitudes toward not only dementia but also elders in general and geriatric practice?

This research adds to a growing consensus about the value of museum-based arts activities in medical education. Indeed, we hold that such activities may positively influence students' formation as compassionate, clinically adept physicians able to care for persons whose diagnoses, dispositions, and dire prognoses may be difficult to bear. A day at the museum may well be a wise prescription, for persons with dementia and their caregivers, to be sure, but also for apprentice physicians.

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