

Arts Intervention for Inpatients with Refractory Epilepsy or Migraine: Pilot feasibility Study

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Background

All chronic disease has potential impact on QOL. Epilepsy and Migraine, while very different neurologic conditions, have in common brief, intermittent, and unpredictable acute events that are disabling in the moment. Both are associated with more continuous disability beyond the acute attacks related to medication effects, psychosocial factors related to unpredictability, and comorbidities of emotional distress, depression/anxiety, and cognitive impairment, disordered sleep among others. Patients with epilepsy and migraine have reduced quality of life relative to healthy controls and have compromised physical, mental, and social functioning.

D-H Creative Arts program offers opportunities for patients to interact with a creative writer, visual artist and harpist. These artists have worked with D-H oncology and palliative care patients, in whom benefits were noted in areas of mood, pain control and length of stay in hospital. We were interested to extend these experiences to Neurology patients who were experiencing distress and disability, but were not neurologically impaired such that participation would be compromised by their focal deficits.

Objectives

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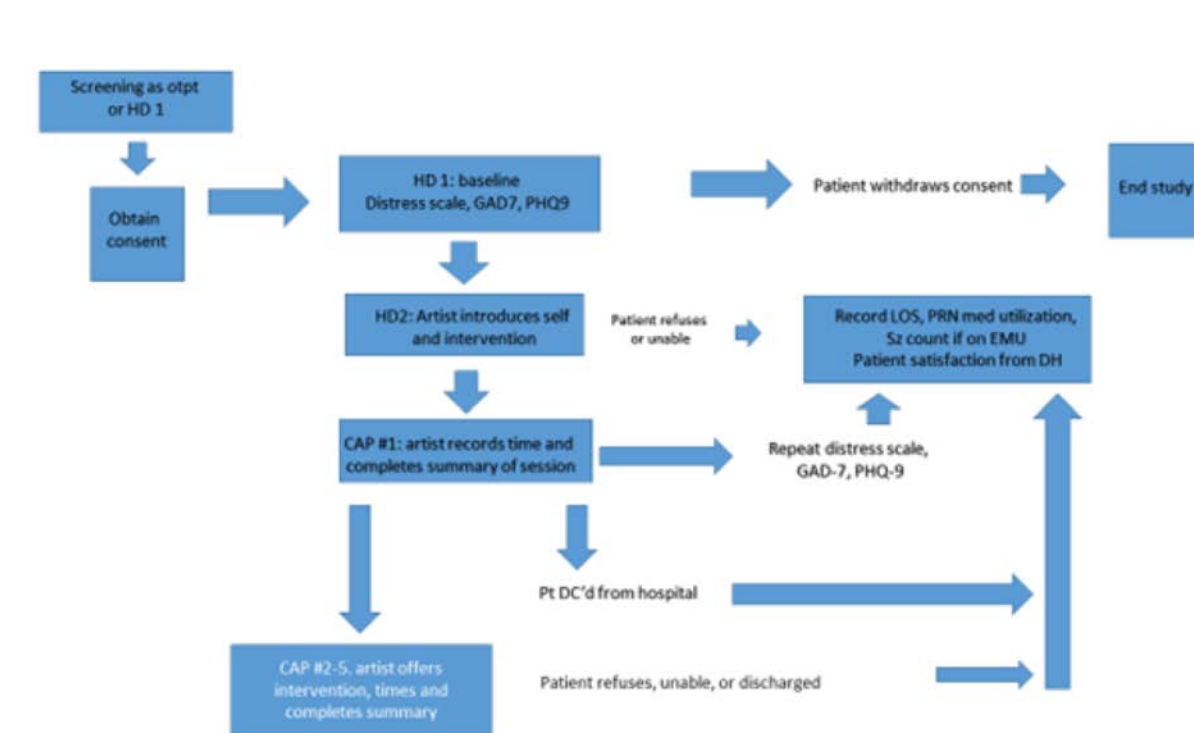
Primary: To define the acceptability of arts intervention to patients and clinical feasibility of intervention. Measured by subject agreeability to consent and participate in an arts intervention.

Secondary: Evaluate patient distress pre and post intervention, intervention effect on mood, and potential adverse effects of the interventions. Measured by NCCC distress scale, PHQ9, GAD7, Usage of medication for seizures or headache

Methods

20 week single institution study.

Convenience sample of *Adult patients > 18 years with refractory Epilepsy or Migraine* patients who were scheduled for admission at Dartmouth- Hitchcock for inpatient Video-EEG monitoring or the Raskin Dihydroergotamine (DHE) protocol. Each subject was assigned randomly to one of the creative artists who interacted with the subject on hospital day 2. The study planned for one session, with an option to repeat daily as long as inpatient. Pre and Post test questionnaires and validated survey instruments, NCCC distress scale, PHQ9, GAD7, were completed by subjects. All rescue medication use utilized pre, during and post arts intervention was documented.



Creative Arts Program

At Dartmouth-Hitchcock, we believe that experiencing visual art, literary arts and music can be therapeutic and contribute to a person's sense of well-being. Our Creative Arts Program offers one-on-one experiences for patients in the hospital, infusion suites and waiting areas with our Visual Artist, Literary Artist and Therapeutic Harpist. To schedule a visit from one of our Creative Arts Specialists, please call (603) 650-8930 or email creativearts@hitchcock.org. Although our staff is only available for limited hours, we will do our best to accommodate your request.

The Creative Arts Program has an annual event, Telling Our Stories Through Word and Image, which showcases the creative writing and visual art done by cancer patients and their families. You can download the 2018 Anthology (PDF) or contact Support Services at: cancersupport@hitchcock.org to receive a copy.

The Creative Arts Program is a collaboration between Dartmouth-Hitchcock Arts, Norris Cotton Cancer Center Support Services and the Palliative Care Program, and is supported through philanthropy. If you are interested in supporting the creative arts program please contact Marianne Barthel, or donate online to the Arts Program.



Interventions

- Visual artist:** The artist offered patients watercolor painting, drawing, talking about art, or adult coloring. A guided activity based on their art making preference or art history preference is completed.
- Therapeutic harpist:** The harpist provided a sound sample. Depending on patient cues, the harpist may offer music that can be played for them, or offer the patient the Reverie harp to them so that he can experience playing an instrument if interested.
- Creative Writing:** The writer asked the patient about their interests and experiences in writing or storytelling. The following options are offered: reading to them, telling stories, introduction to journaling, storytelling or writing exercises with prompts to get started, interactive writing or storytelling activities. For patients who are unable to write or prefer not to, the writer scribes their words.

Visual Artist: Christine Henderson.
Musician/Harpist: Margaret Stevens.
Creative Writer: Marv Klassen-Landis.



Results

	Screened		Eligible		Consented		P-value
	n	%	n	% of overall	n	% of eligible	
Total	117		61	52%	33	54%	
Age at Enrollment	mean	42	42		40		0.94*
Reason for admit	Headache	25	25	100%	11	44%	
	Epilepsy	92	36	39%	22	61%	0.61
Gender	Female	77	38	49%	22	58%	
	Male	39	22	56%	11	50%	0.92
	unknown	1	1	100%	0	0%	

Results: Patient Consent

61% of epilepsy patients
44% of headache patients

Results: Completion of Arts Intervention

Writer	82%
Visual artist	100%
Musician	100%

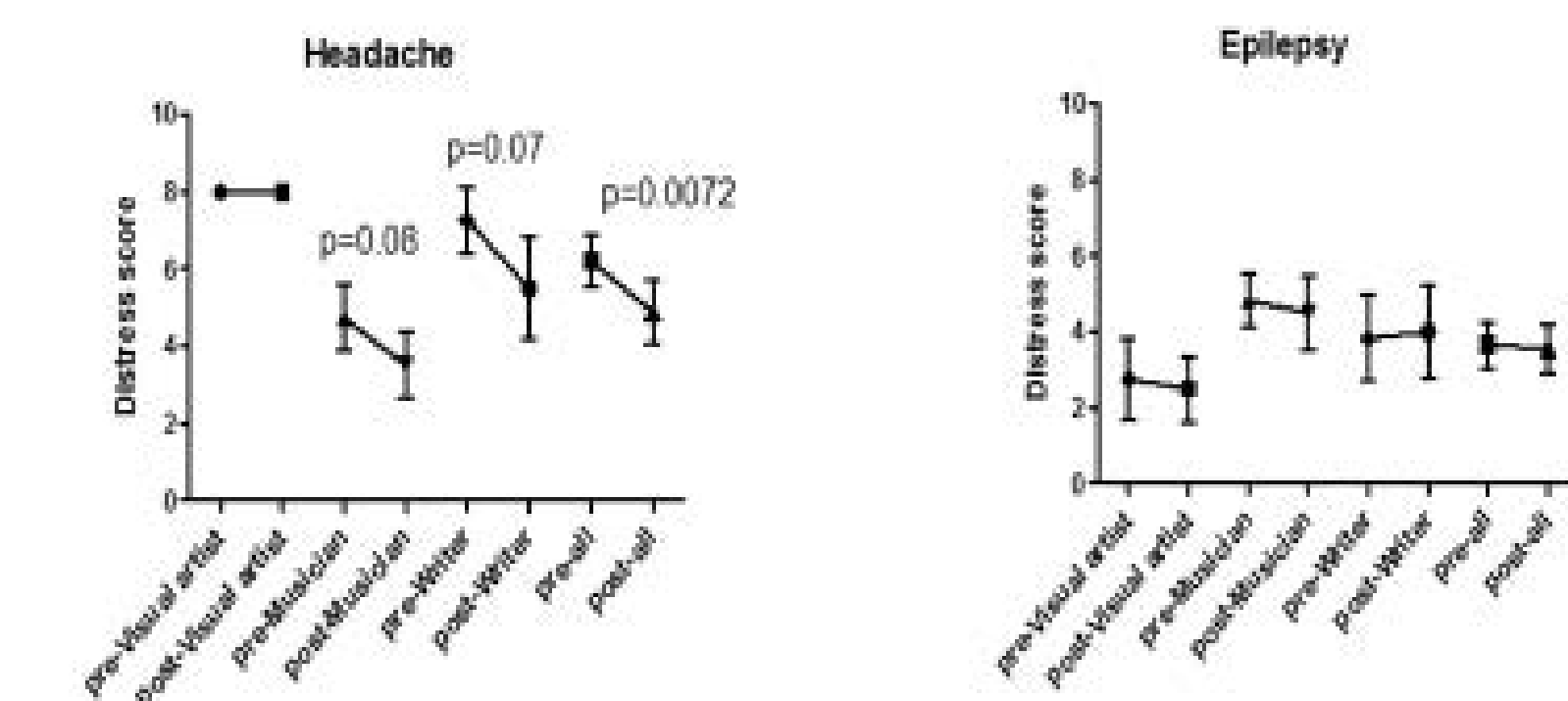
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Total Scores on Questionnaires pre- vs post-activity

		pre-activity		post-activity		P-value*
		mean	SE	mean	SE	
PHQ-9	Epilepsy	11.62	1.98	11.08	2.04	0.63
	Headache	8.67	1.57	6.89	1.30	0.052
GAD-7	Epilepsy	8.25	1.56	7.5	1.58	0.32
	Headache	7.33	1.54	5.89	1.50	0.076
Distress	Epilepsy	3.67	0.62	3.67	0.62	0.86
	Headache	6.22	0.68	4.89	0.82	0.0072

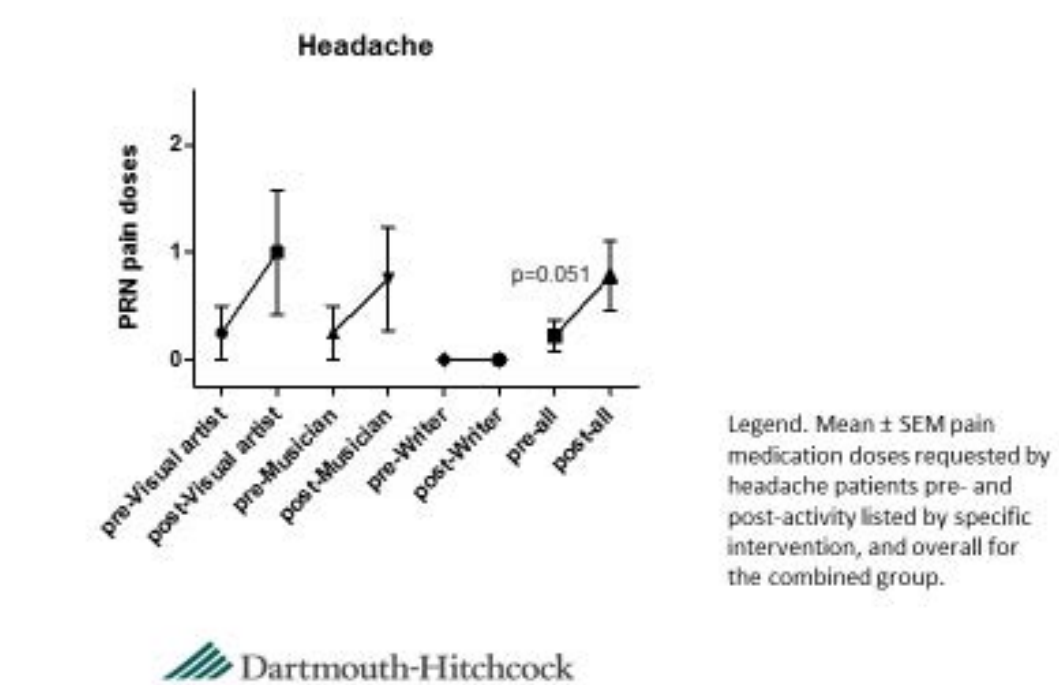
*paired t-test

Distress scale scores pre and post-activity



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Pain medication utilization by headaches patients for the shift pre- and post-activity.



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Conclusions

1. An arts intervention is feasible for neurological inpatients
2. Epilepsy patients were more likely to consent to the arts intervention pre-admission compared to migraine patients
3. Patient acceptance of the artist and at intervention was very high on POD 2.
4. Migraine patients experienced greater relief of distress than epilepsy patients.

References

1. Christensen, JF and Gomita, A. Art and the Brain: Introduction 2018