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
Objectives: To address the Research Question-Is it feasible to incorporate an arts intervention into the inpatient care of Neurology patients.

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 questionaires 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.

Results
Distress scale scores pre and post activity

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Pre-Activity</th>
<th>Post-Activity</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHQ9 Epilepsy</td>
<td>11.62</td>
<td>1.59</td>
<td>0.03</td>
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<tr>
<td>Headache</td>
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<td>6.09</td>
<td>0.052</td>
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<td>GAD7 Epilepsy</td>
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<tr>
<td>Headache</td>
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<td>5.60</td>
<td>0.076</td>
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<tr>
<td>Distress</td>
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<td>0.32</td>
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<tr>
<td>Headache</td>
<td>6.22</td>
<td>4.99</td>
<td>0.0072</td>
</tr>
</tbody>
</table>

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