Tablet Devices (iPad) for Control of Behavioral Symptoms in Older Adults with Dementia

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**Background**

- Polypharmacy, and use of antipsychotic medications, is a rapidly growing area of clinical concern.
- Medications to manage behavioral symptoms in older adults can have serious adverse effects including falls and delirium.
- Medications have limited efficacy in controlling problem behaviors.
- Evidence-based safe and cost effective management of behavioral symptoms in dementia include non-pharmacologic interventions.

**Objective and Methods**

**SETTING:** UCSD Medical Center Senior Behavioral Health Unit

**OBJECTIVE:**
- To determine whether: iPads as a clinical tool for patients at risk of behavioral agitation may reduce the use of behavioral PRN medications.
- Assess older adult’s ability to familiarize themselves with touch screen technology and assess feasibility and safety of iPad use.
- Establish protocols for individualizing iPad and app selection.
- Outcome Measure: Reduction in the use of PRN antipsychotic medication.

**THEORETICAL FRAMEWORK:**
Three theoretical models for non-pharmacologic interventions:
1. The unmet needs model - address underlying needs causing inappropriate behaviors.
2. Behavior/learning model - problem behaviors are learned through reinforcement by staff who provide attention when problem behavior displayed.
3. Environmental vulnerability/reduced stress threshold model - reduced stimulation levels or provision of relaxation techniques.

**METHODS:**
- iPads are used for purpose of engagement and also for acute de-escalation on the unit.
- Nursing staff and volunteers supervise iPad use.
- Primary outcome measure is reduction in the number of elective PRN doses administered.

**Results**

**Figure 1: Patient M**
82 y.o. Caucasian Female; DX: Dementia NOS, Psychosis NOS; MoCA: 8/30

**Figure 2: Patient I**
91 y.o. Caucasian Female; Dx: Severe Dementia, likely AD; MoCA 8/25; Visual Impairments

**Discussion**

- Preliminary data indicate that use of iPads for older psychiatric inpatients is both safe and feasible.
- Engaging patients in activities that recruit visual attention can reduce agitation.
- Use of technology in older adults can be limited due to lack of familiarity with touch-based devices.
- There may be difficulty engaging patients with delirium, lower cognitive functioning and/or visual or hearing impairments.
- Is it the iPad or the personal interaction which helps control the symptoms?
- We have also identified other practical uses, such as translation and to facilitate communication with the aphasic patient.

**Limitations and Future Directions**

- This work is based on an open, non-randomized, non-blinded trial.
- This current findings are based on extremely small sample, and generalizability cannot be established without additional trials.
- Use of this modality is currently being tested in an expanded trial at UCSD Senior Behavioral Health.

**Conclusions**

This non-pharmacological intervention may reduce the use of medication use which may in turn decrease harm in the geropsychiatry patient.

**References**