Increasing Knowledge and Recognition of Delirium in Hospice: A Quality Improvement Project

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Delirium in Hospice & Palliative Care

Prevalence & Incidence

- Prevalence in hospice and palliative care: 42%-88%
- Incidence increases as death nears
- Likely approaches 90%-100% in the days-hours before death

(Fairman et al., 2016; Kinchin et al., 2021; Watt et al., 2019)

Morbidity & Mortality

- Increased mortality, 62% in the next 12 months
- Higher mortality in patients with dementia
- Median survival of 2 weeks after initiation of haloperidol in hospice and palliative care patients
- Worsens pre-existing dementia, increases risk of new-onset dementia
- Accelerates functional decline, increased risk of injury and falls
- Increased risk for mental illness following the event

(Agar et al., 2016; Fairman et al., 2016)

Associated Distress

- Patients rate distress 8-9/10
- 75% of patients remember their delirium
- Increased risk of suicide, PTSD
- Significant threat to patient comfort, dignity and quality of life
- Renders patients unable to make decisions about their care
- Families, caregivers and clinicians also experience profound discomfort

(Fairman et al., 2016; Schmitt et al., 2017)

Gaps in Knowledge & Practice

- Under-recognition & Misdiagnosis
- 2015 study in palliative care cancer patients: 61% of delirium diagnoses were missed by referring clinicians. 67% of reversible delirium cases went unrecognized
- Subjective cognitive assessments have been shown to be inaccurate
- Nurses consistently report lack of knowledge as well as a need and desire for education

(De la Cruz, 2015; Ryan et al., 2009)

Clarity & Precision of Terminology

- Delirium in hospice is often referred to as: terminal restlessness, terminal agitation, acute confusional state, acute psychosis and more.
- These terms are too ambiguous and may create conceptual confusion and compromise quality management
- A study by Hey et al. (2015) reported that when delirium was stated as a clear diagnosis, the management that followed was superior with less reliance on psychotropic medication

(Fairman et al., 2016; Hey et al., 2015; Slooter et al., 2020)

Short Confusion Assessment Method

- One of the few delirium assessment tools validated for use in palliative care
- Created specifically to be used by non-psychiatrically trained clinicians
- Sensitivity & specificity for delirium is >90%
- Takes <5 minutes to complete

(Inouye, 2014; Ryan et al., 2009)

Project Design & Implementation

Improvement Science Framework

- The Knowledge to Action (KTA) Framework provided guidance for the design of this project in response to limited knowledge surrounding delirium in hospice
- Project design complements the KTA framework by aiming to:

1) Create Knowledge
2) Synthesize Knowledge
3) Tailor knowledge into action

Primary Aims

1. Increase delirium knowledge
2. Increase recognition of delirium in clinical practice

Secondary Aims

1. Evaluate the value and practicality of the CAM tool within this clinical setting
2. Increase usage of standardized terminology in documentation and care planning i.e. use of the term ‘delirium’

Interventions

1. Single education session delivered to RNs, LPNs & interested NPs
2. Implementation of the Short CAM tool into clinical practice

Data Collection

- Web-based pretest administered immediately prior to the education intervention
- The same web-based posttest administered 4 weeks later
- Respondents were also surveyed via 5-point Liker scale survey on: frequency of delirium diagnosis/recognition pre & post intervention, frequency of use of the term ‘delirium’ pre and post intervention & perceived value and feasibility of CAM tool

Considerations & Limitations

- 25 pretest respondents, 12 posttest respondents
- Potential for attrition bias due to lack of response on posttest
- Uneven group comparison for descriptive statistical analysis
- Inferential statistical analysis (t-test) was based on cases without missing data
- A single rater was used for scoring short answer questions on pre and posttest, multiple raters may have strengthened validity
- No demographic information collected from respondents to ensure anonymity

Findings

Knowledge

Paired T-Test

Scores for posttest (M=82.17, SD=15.64) were significantly higher than for pretest (M=54.83, SD=16.84) conditions; t(11) = -8.022, p = 0.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	54.83	12	16.835	4.860
	Posttest	82.17	12	15.643	4.516

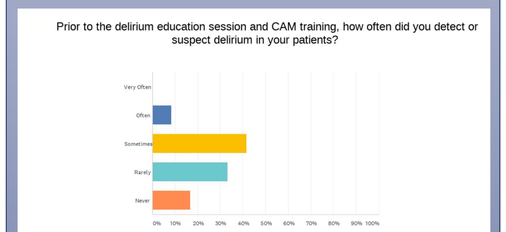
Paired Samples Correlations

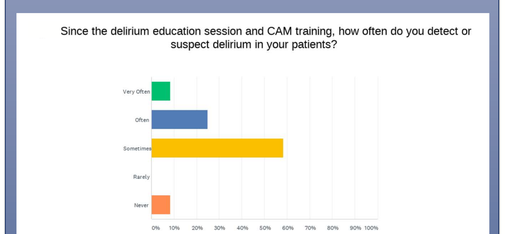
		N	Correlation	Sig.
Pair 1	Pretest & Posttest	12	.738	.006

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Pretest – Posttest	-27.333	11.804	3.408	-34.833	-19.833	-8.022	11	.000

Recognition





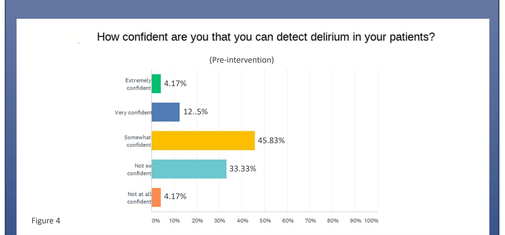
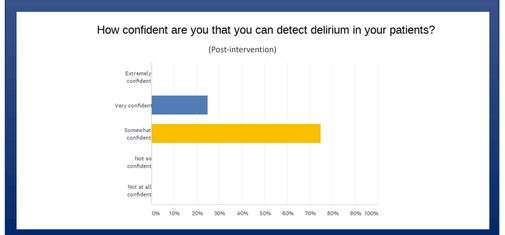


Figure 4



Findings

Short CAM Value & Feasibility

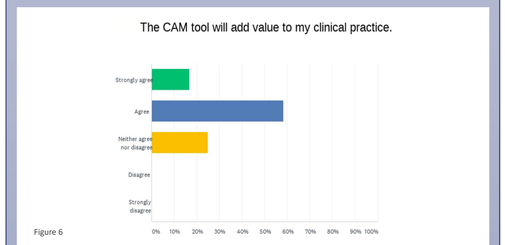


Figure 6

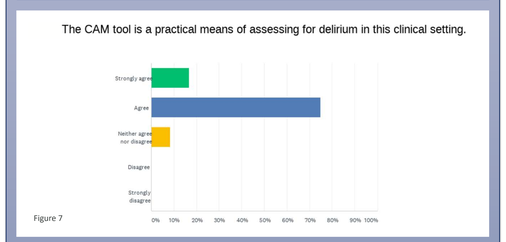
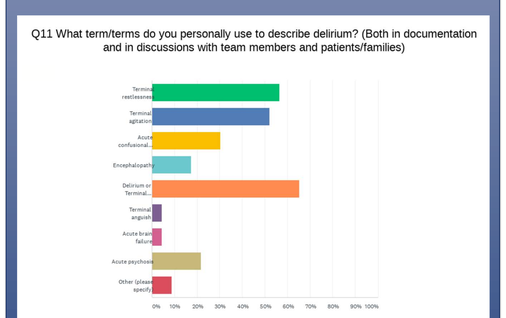


Figure 7

Standardizing Terminology

- Prior to interventions 79% of respondents reported they “rarely” or “never” use the specific term *delirium* in their documentation
- Following the interventions 67% of respondents continue to report they “rarely” or “never” used *delirium* in documentation



Other Key Findings

- Only 49% of respondents recognized inattention (a cardinal feature of delirium) as a symptom of delirium on pretest, this increased to 83% following the education intervention and CAM training
- >70% of respondents reported receiving little to no education in the past on delirium
- 100% of respondents reported interest in receiving more delirium education

Recommendations

- Add delirium-specific goals and interventions to Electronic Health Record to assist in care planning (in-progress)
- Add a fillable Short CAM worksheet to the Electronic Health Record to increase ease of use and accessibility for nurses (in-progress)
- Conduct intermittent testing of Short CAM inter-rater reliability in order to achieve optimal sensitivity and specificity of CAM tool
- Continue shifting towards use of standardized terminology, (use the term, ‘delirium’) to avoid conceptual confusion
- Continue with routine delirium education: This form of education delivery provided statistically significant increases in delirium knowledge, however findings reveal continued room for knowledge growth
- The CAM is also validated as a screening tool, consider implementation of a delirium screening protocol as recommended by expert opinions and delirium guidelines

Next Steps

- Increasing knowledge and recognition of delirium is only a first step for ensuring optimal care. A logical next step is to evaluate the quality of management which includes:
  - Ensuring that preventative measures are in place for high-risk patients
  - Ensure that delirium cases are being routinely evaluated for reversible causes
  - Ensure nonpharmacologic measures are routinely employed and that benzodiazepines and psychotropic medications are being used appropriately

> “Escalating delirium from an inevitable syndrome to one that requires urgent attention would help to ensure that the dying patient … continues to be treated as being present and worthy of optimal care”
>
> Hosie et al., 2016

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