Reducing Delirium in Patients with COVID-19

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PICO QUESTION

What occupation-based interventions are effective in decreasing delirium in patients with COVID-19?

BACKGROUND & RATIONALE

Significant rise in patients with COVID-19 experiencing symptoms of delirium within the last year

Symptoms: psychosis with mood shifts, brain fog, shifts in memory, slow cognitive processing, and lack of engagement

Purpose of the project: search, appraise, and synthesize the evidence regarding delirium in patients with COVID-19

REVIEW PROCESS

SEARCH METHODOLOGY

Databases Searched	Search Terms	Inclusion Criteria	Exclusion Criteria
PubMed CINAHL BioMed Central	<p>P: COVID-19, "severe acute respiratory syndrome coronavirus 2," corona virus, corona virinae, SARS-CoV-2, 2019-nCoV, "betacoronavirus," ICU, "ICU patients"</p> <p>I: interventions, therapy, strategy, program, family visitation, music therapy</p> <p>O: delirium, confusion</p>	<ul style="list-style-type: none"> Articles published in English Participants with delirium Hospital setting 	<ul style="list-style-type: none"> Participants with dementia Less rigorous research designs Articles published over six years ago

Note: Terms searched in various combinations

Records identified through search: 804

Records screened: 741

Records excluded by title: 628

Records excluded by abstract: 95

Full-text articles assessed for eligibility: 18

Articles included in CAT synthesis: 5

MAIN FINDINGS

Level of Evidence	Citation	Intervention	Outcome Measures	Results
Level I	Khan et al. (2020) Quality Score: 70%	120 minutes a day of slow-tempo music Audiobooks	CAM	$\pm$
	Martinez et al. (2012) Quality Score: 88%	Multicomponent intervention delivered by family members: • Provision of a clock in the room • Extended visitation times • Presence of familiar objects in the room • Reorientation of patient	CAM	+
	Álvarez et al. (2017) Quality Score: 88%	Early and intensive OT interventions: • Positioning to prevent edema and pressure sores • Activities of daily living • Family participation • Cognitive stimulation Non-pharmacologic strategies: • Family education • Clock and calendar • Avoidance of sensory deprivation • Familiar objects • Reorientation of patients • Extended visitation times	CAM DRS	$\pm$
Level II	Mudge et al. (2013) Quality Score: 80%	• Multisensory diversion and relaxation strategies • Reorientation • De-escalate agitation • Encourage independence • Nutrition and hydration • Patient/caregiver information	AMT	+
			MMSE	
Level III	Chong et al. (2013) Quality Score: 64%	Bright-light therapy (2000-3000 lux) for four hours daily as part of a multicomponent intervention	DRS CMMSE MBI	+

Note: OT = occupational therapy; + = significant improvement; $\pm$ = non-significant improvement; CAM = Confusion Assessment Method; DRS = Delirium Rating Scale; AMT = Abbreviated Mental Test; MMSE = Mini Mental State Exam; CMMSE = Chinese Mini Mental State Exam; MBI = Modified Barthel Index

LIMITATIONS

Small sample size	Data not adjusted to physiological stress	Simple data masking	Small number of patients per room	Conflict of interest
Attrition	Not cost-effective	No control group	Groups not randomly selected	Risk of observer bias

CLINICAL UTILITY

CLINICAL BOTTOM LINES

RECOMMENDATIONS

All interventions should be implemented with caution monitoring the effectiveness for patients with COVID-19.

Implementation of the interventions as frequently as possible.

TRACKER TOOL

SCAN ME

REFERENCES

SCAN ME