Identifying delirium in specialist palliative care settings: A scoping review

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Background: Delirium (also known as acute confusional state) is a condition whereby a person becomes increasingly confused, usually developing rapidly over a few hours or days and fluctuating in course (American Psychiatric Association 2014). It can be indicated by certain behaviours, such as being more agitated or restless than normal or being quiet and withdrawn. The symptoms associated with delirium include drowsiness, change in mood or alertness, difficulty following conversation, hallucinations and delusions. An episode of delirium is associated with adverse outcomes including prolonged hospital admissions and recovery from surgery, increased morbidity and increased risk of mortality (Inouye 2014; Salluh 2015).

Palliative care is the umbrella term for the care offered to patients with a life-threatening, life-limiting or terminal illness, and their families. It aims to improve quality of life and reduce suffering, by looking after the physical, psychological, educational, and spiritual needs of palliative care patients (NICE 2004; WHO 2018). Palliative care is provided in different healthcare settings, including specialist teams in the community, specialist palliative care inpatient units in hospitals and in inpatient hospices. Palliative care can also be delivered by generalists, including general practitioners and community nurses in primary care. Patients receiving palliative care are at a particularly high risk of developing delirium. This is because palliative care patients are suffering a serious illness, are often older and may have some pre-existing cognitive impairment; making them more vulnerable to developing delirium when certain precipitating factors are experienced, including taking certain medications, use of a bladder catheter and use of physical restraints (Inouye 2014). The prevalence of delirium in palliative care inpatient settings is high. A recent review reported that over a third of palliative care patients are diagnosed with delirium on admission (Watt 2019). Delirium point prevalence estimates in the review varied across palliative care settings with 4%–12% in the community, 9%–57% in hospital palliative care consultative services, and 6%–74% in inpatient palliative care units. Across all palliative care settings, the highest prevalence of delirium was prior to death with 42%–88% (Watt 2019). Delirium in this setting is distressing and can have a negative effect on the communication abilities of patients, including the ability to hold meaningful conversations with loved ones, to make decisions about their care and to express where they wish to die (Finucane 2017; Lawlor 2014).

There are a number of assessment tools available for identifying delirium (De 2015). Once delirium is identified, its underlying causes can be investigated and addressed, when
appropriate to do so, and it can often be managed by providing basic good quality care including, maintaining hydration and re-orientating patients, and reviewing medications that may contribute to delirium (LeGrand 2012). However, delirium is often not identified and therefore not adequately managed (De La Cruz 2015; Inouye 2014). Screening tools can help to systematically identify patients with possible delirium and diagnostic assessments enable a diagnosis to be confirmed. Despite a number of tools being available, a survey of palliative care physicians in the UK reported that 59% of respondents never administer a screening tool on inpatient admission, and 26% ‘never’ and 66% ‘sometimes’ use a screening tool on an ongoing basis in palliative care inpatient settings (Boland 2019). This highlights a lack of uptake for screening tools and variability in the practice of screening. However, it is unclear which screening and diagnostic tools are used in research in palliative care settings.

This scoping review will assimilate existing published scientific literature to produce an overview of the literature and map what the current (research) practice is for identifying delirium in studies in specialist palliative care settings. The findings will improve knowledge on the assessment of delirium in palliative care and help to identify gaps or patterns in research to support future studies on delirium screening and diagnosis in these settings.

Aims:

To explore how delirium is identified in patients in specialist palliative care settings

To compile a list of screening and diagnostic tools or methods to identify delirium, and their characteristics.

To compile a list of the reported barriers and facilitators to identifying delirium.

Research questions:

Which screening and diagnostic tools or methods are used to identify delirium in research in specialist palliative care settings?

Which members of the healthcare team, research team and family/caregivers assess patients for delirium?

What are the reported characteristics of the different assessment tools identified?

What are the reported barriers and facilitators to identifying delirium?

Methods

A scoping review design was chosen as this research is seeking to provide an overview of research evidence, rather than use the results to answer a clinically meaningful question or
inform practice. The broad research question allows for a wide search of the literature and because the aim is to explore the identification of delirium, the individual study outcomes are not required, nor an assessment of the quality of each study. For these reasons a scoping review was deemed to be more appropriate than a systematic review. Following structured guidance, scoping reviews are rigorous and methodically undertaken.

We will follow the scoping review guidelines from the framework proposed by Arksey & O'Malley (2005) refined by Levac et al (2010) and the Joanna Briggs Institute (2015). The guidelines suggest using a five-step approach: deciding the research question and designing a protocol; identifying relevant studies; screening of studies; extracting and charting the results; collating and summarising the results, identifying key implications. We will also include an (optional though recommended) sixth step, consultation, which involves sharing and discussing findings and interpretations with experts and the public. An iterative process will guide the review strategy and any subsequent changes or adaptations will be documented and justified. The reporting of the review will follow the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR guidelines) (Tricco 2018).

**Step one: Deciding the research question and designing a protocol:** The research questions have been developed (see above)

**Step two: Identifying relevant studies:** Relevant studies will be identified by searching appropriate electronic databases. The databases to be searched are: CINAHL, MEDLINE, PsychINFO, EMBASE and the Cochrane database. The search strategy will be developed with input from a search specialist. The databases will be searched from the year 1980, when delirium was first included as a disorder in the Diagnostic and Statistical Manual (DSM) of Mental Disorders. Search results will be downloaded into the reference manager Endnote (ref) and into Covidence (ref) for screening. Duplicates will be removed.

**Step three: Screening of studies:** The study screening will involve two stages. In the first stage, two reviewers will independently screen the titles and abstracts of identified records. Those meeting the inclusion criteria will be taken through to stage two, the full text screen, as well as records where the title and abstract do not provide sufficient information. Two reviewers will independently screen the full texts and any disagreement will be discussed until consensus is reached, if this is not possible, a third reviewer will be approached to make a decision. A PRISMA flow diagram will be produced.

**Inclusion criteria**

All adults (18+) will be included.
All quantitative and qualitative research will be included.

Any healthcare setting which specialises in palliative care will be included, e.g. specialist palliative care unit in a hospital, community care provided by a specialist palliative care team, an inpatient hospice setting, or specialist palliative care teams visiting patients on general hospital wards (whilst under the care of their usual care team).

Included studies must report the detection of delirium; this may include screening, assessment or diagnosis, and report the tool or method used.

**Exclusion criteria:**

Population of children (under age 18).

Published in a language other than English.

Case studies (with less than 20 patients), editorials, magazine articles and studies wherein full texts cannot be found.

Reviews (systematic, scoping, narrative and qualitative synthesis) will not be included, but the list of included studies within any relevant review will be screened and the full texts of potentially relevant included studies will be retrieved.

**Step four: Extracting and charting the results:** Data from studies identified for inclusion will be charted independently by two reviewers onto a data charting form. In line with Joanna Briggs Institute guidelines, this charting form may require refinement during the process of the review. The data extracted will include study ID, study details, country and setting of the research, the screening tools and diagnostic methods/tools used to identify delirium, and who administered the tool/conducted the assessment and the frequency, time points of administration and time taken. Characteristics of the tools will be extracted (including time taken to administer and frequency, validation history, method of assessment (patient interview, observation, family rated), required training, and frequency of assessment) and the reported barriers and facilitators to using the tools.

**Step five: Collating and summarising the results identifying key implications:** Data will be charted to compile a summary table to display the use of delirium tools across palliative care research. This summary table will detail the number of studies reporting each tool, the design and purpose of each study (qualitative, quantitative, validation, RCT etc), any specific implementation issues (time to administer, training required etc.) and the data extraction items detailed above. This will provide an overall picture of the current use of delirium tools in palliative care settings.
A second table will be compiled to display the tools and their properties; with full descriptions of each tool, the purpose of the tool (screen, diagnose, severity), the number of items in the tool, the assessment method of the tool (observational, clinician rated, family/carer rated, direct questioning), the availability of the tool, and the psychometric and diagnostic properties of the tools. This will provide a detailed list of the delirium screening and diagnostic tools used in palliative care with their characteristics.

The results will be descriptively presented and displayed in tables to provide an overview of the existing evidence base for detecting delirium in palliative care settings. The main areas of focus will be the delirium screening tools, the geographical location of studies, settings, and tool characteristics.

**Step six: Expert consensus**

To confirm the findings and the interpretations of the findings, members of a delirium and hospice research patient and public involvement (PPI) group and palliative care clinicians will be approached for consultation. This will take place as a face-to-face meeting where possible, or via email or phone. Findings from the review will be shared with PPI members and palliative care clinicians to discuss interpretations of the findings and validate the mapped evidence, to gather additional experiences from clinicians of detecting delirium, and to discuss the importance of, and ideas for, future delirium research. This consultation will be summarised and discussed alongside the review findings in the discussion section of the report.

**Dissemination and ethics**

This review will be written up and published in a relevant peer-reviewed journal. As the review will be using published research, it does not require ethical approval.

**References**


NICE 2016 https://cks.nice.org.uk/delirium#!scenarioRecommendation:1

