Using sense-making theory to aid understanding of the recognition, assessment and management of pain in patients with dementia in acute hospital settings

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ABSTRACT

Background: The recognition, assessment and management of pain in hospital settings is suboptimal, and is a particular challenge in patients with dementia. The existing process guiding pain assessment and management in clinical settings is based on the assumption that nurses follow a sequential linear approach to decision making. In this paper we re-evaluate this theoretical assumption drawing on findings from a study of pain recognition, assessment and management in patients with dementia.
Aim: To provide a revised conceptual model of pain recognition, assessment and management based on sense-making theories of decision making.
Methods: The research we refer to is an exploratory ethnographic study using nested case sites. Patients with dementia ($n = 31$) were the unit of data collection, nested in 11 wards (vascular, continuing care, stroke rehabilitation, orthopaedic, acute medicine, care of the elderly, elective and emergency surgery), located in four NHS hospital organizations in the UK. Data consisted of observations of patients at bedside (170 h in total); observations of the context of care; audits of patient hospital records; documentary analysis of artefacts; semi-structured interviews ($n = 56$) and informal open conversations with staff and carers (family members).
Findings: Existing conceptualizations of pain recognition, assessment and management do not fully explain how the decision process occurs in clinical practice. Our research indicates that pain recognition, assessment and management is not an individual cognitive activity; rather it is carried out by groups of individuals over time and within a specific organizational culture or climate, which influences both health care professional and patient behaviour.
Conclusions: We propose a revised theoretical model of decision making related to pain assessment and management for patients with dementia based on theories of sense-making,

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which is reflective of the reality of clinical decision making in acute hospital wards. The revised model recognizes the salience of individual cognition as well as acknowledging that decisions are constructed through social interaction and organizational context. The model will be used in further research to develop decision support interventions to assist with the assessment and management of patients with dementia in acute hospital settings.

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What is already known about the topic?

- The recognition, assessment and management of pain in patients with dementia in acute care settings is currently suboptimal.
- Existing clinical and decision processes assume that clinicians follow a sequential linear approach to decision making.
- Patients with dementia have problems communicating their pain to clinical staff.

What this paper adds

- Pain assessment and management of patients with dementia is not a linear process, but can be characterized as a naturalistic decision process, where sense making of a patient's pain is key.
- Pain assessment and management is a distributed activity over time and across individuals.
- A revised model of pain recognition, assessment and management for patients with dementia in acute care settings that reflects theoretical literature and the findings from our study.

1. Background

It has been estimated that approximately 50% of people with dementia regularly experience pain and a concomitant decrease in quality of life (van Kooten et al., 2015). A number of studies internationally have identified that pain is often substantially undertreated or untreated in geriatric patients (Daoust et al., 2014; Lukas et al., 2013; Morrison and Siu, 2000; Niruban et al., 2010), and that people with dementia are significantly less likely to receive analgesia than their cognitively intact counterparts (Closs et al., 2004; Hoffman et al., 2014; Morrison and Siu, 2000). There are particular issues with the management of pain for older patients in acute hospital settings (Atkinson and Almahdi, 2014; Carr et al., 2014; Chang et al., 2010; Lin et al., 2014; Niruban et al., 2010). Poor management of pain may lead to slower rehabilitation and a decrease in physical function with hospitals stays longer for a person with dementia than for others admitted for the same procedure (Alzheimer's Society, 2009).

There are particular challenges for clinical staff when caring for patients in acute settings who have dementia; for example, they may not be able to report their pain experiences verbally and are therefore at increased risk of having their pain inadequately assessed and managed (Sampson et al., 2015). In addition, behavioural symptoms associated with dementia, such as agitation, aggression and shouting, often arise as a result of underlying pain that, if mis-identified, may lead to the inappropriate prescription of antipsychotic medications (Ballard et al., 2011). A number of studies have highlighted particular issues faced by clinical staff when assessing and managing pain in older adults and those with dementia; communication with patients may be problematic if they are unable to express their pain experiences clearly (Coker et al., 2010; Manias, 2012), organizational issues may impact on when older adults receive pain relief (Manias, 2012; Manias et al., 2002), and trying to balance effectively treating pain whilst simultaneously minimizing the side effects of analgesics has been reported as challenging (Manias, 2012). Nurses have been both observed and reported as not using validated tools for the assessment of pain when caring for patients with dementia in the acute hospital, preferring instead to rely on simple questioning and observation of non-verbal cues (Coker et al., 2010; Manias, 2012). This means that there is 'the risk of inaccurate judgements being made about patients' pain intensity' (Manias, 2012) [p. 1252].

Existing models of pain recognition, assessment and management assume a clinical process which is sequential in nature and could be compared to a linear cognitive or judgement and decision making process (Fig. 1), where the nurse accurately interprets the patient's pain experience (i.e. makes an *assessment or judgment* about their pain), and takes appropriate actions to decrease their pain (i.e. makes a *decision* about the most appropriate treatment to achieve this goal). This paper uses data from an ongoing study to examine these assumptions, highlighting the limitations of a theoretical approach which assumes a linear process to understanding the process of pain assessment and management in acute care settings. The aim of the paper is to re-evaluate the process of pain recognition, assessment and management, providing an alternative theoretical framework.

1.1. Pain assessment as a judgement process

One of the most influential models of decision making is that of hypothetico-deductive reasoning (Dowding and Thompson, 2004; Elstein, 1978). Hypothetico-deductive reasoning suggests that individuals go through a series of stages when processing information to make a judgement, defined as 'an assessment between alternatives' (Dowie, 1993) or diagnosis. The first stage, known as cue acquisition, is the gathering of clinical information about the patient. Following the collection of information,