Nurses experiences of delirium in the orthopaedic patient: hip fractures

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What is a fracture neck of femur?

A fracture neck of femur (broken hip) is a serious injury, especially in the elderly patient. It occurs when the top part of the femur is broken, below the ball and socket joint. There are two main types of hip fracture:

- Intracapsular and
- Extracapsular
Incidence of a hip fracture

Hip fractures are a common injury in the older person with significant associated morbidity and mortality rates. The Irish Hip fracture database was implemented to monitor standards of care against international standards. The Irish Hip fracture database (IHFD) was implemented to monitor standards of care against international standards.

It covers 16 hospitals in total.

Results (2014): 2,666 patients admitted with a fracture with 73% female.

The 80-89 age group accounted for with 720 males and 1,944 females. (Dodds et al. 2009)
Aim of the study

The study attempts to explore nurses’ experiences of pain and delirium in the orthopaedic patient. Qualitative research design allows the researcher gain an insight into peoples’ experiences in the narrative form (Magilvy et al. 2009). A qualitative descriptive design will allow participants to provide information about nursing patients with delirium and pain in the orthopaedic setting. As data will be collected through human experience it is more personal and captivating as it can be related.
Rationale of the study

• Co-existing illnesses can be present in the form of prevailing cognitive impairment or new onset post-operative delirium, both of which require increased support in nursing interventions. It is quite a routine procedure to manage delirium and pain separately in the orthopaedic patient, nevertheless difficulty can occur when both occur concurrently.

• With an aging population of elderly patients they are more frequently seen in the clinical environment. Firstly, delirium is a common complication of surgical intervention with a wide range of incidence of between 10.0% and 60.0%, with a reported incidence of 4.0% and 53.3% in patients with hip fracture (Tsang, 2013).

• The origin of delirium is considered multifactorial and includes pain and medications. Delirium can be categorised into three types; hyperactive, hypoactive and mixed subtype (Tsang, 2013). This requires the need for further exploration on how each type is assessed and the affect each has on the patient.
Data Collection Process

• Data was collected by means of semi-structured research interviews. A research interview is a verbal interaction for the purpose of collecting valid and reliable data to answer a research question (Parahoo, 2014). Interviews took place over a 4 week period on a surgical orthopaedic ward. A pilot study was initially conducted with one interview and recommended amendments were made based on analysis of the data. The interview was divided into two sections; knowledge and experience of pain and delirium in the orthopaedic patient.

• Interviews were audio recorded and transcribed verbatim, allowing the participants’ prolonged time to answer questions and thereby not rushing the interview process.
Are we familiar with delirium?

When analysing the findings of the collected data, it was evident that delirium within the orthopaedic patient cohort is becoming more frequent. All 6 nurses care for patients experiencing delirium daily and they question why it is such a common complication. It appears to be a complication that is not often spoken about or explained to the patient on admission. The majority of nurses felt that post-operative delirium carries massive implications for patient outcome and often it was noted that delirium tends to last indefinitely. It became apparent that little knowledge was known about the nature of delirium. The nurses were not familiar with the different types of delirium and felt that all patients are labelled as “confused” without hesitation. There was a feeling of lack of knowledge and education among the nurses. One nurse expressed “I think if I was able to distinguish delirium from dementia and was aware of what it entails I would be able to care for the patient in a higher standard”. It became evident from the interviews that family involvement was an underlying theme that the nurses continually referred to.


Causes of delirium

Issues that create an increases risk:

- Age,
- Sensory deficits,
- Electrolyte disturbance – dehydration,
- Alcohol or substance abuse,
- Infection
Causes of delirium

Issues that are created due to hospitalisation:

- Prolonged time to surgery,
- Medication withdrawal or addition,
- Immobility,
- Dehydration,
- Pain,
- Constipation,
- Sleep disturbances
Assessment of delirium

PRISM-E is an assessment tool used to discover the root cause of delirium

- P- pain
- R- retention of urine or constipation
- I- Infection or Immobility
- S- Sleep disturbance
- M- Metal imbalance or medication
- E- Environmental changes
Pre-operative assessment of Delirium

From examination of the data, outcomes suggest that pre-operative assessment of delirium on admission requires further development. It has become clear that due to time spent in the emergency department and bed capacity, patients are often transferred to theatre from the emergency department and in turn transferred to the orthopaedic ward post-surgery. 4 nurses stated that it is very difficult for the nurse to formulate an accurate baseline of the patient as they have received analgesia, sedation and/or an anaesthetic. Results also showed that there is a lack of an assessment tool for delirium in the clinical setting. The nurses were not aware of a tool but felt that the introduction to something similar would be a vital asset to their nursing care. It appeared that the tool would provide support for nurse and patient in the assessment of risk factors precipitating to delirium as well as monitoring of the patients cognitive state.
The lack of a nursing assessment tool

• Regarding pain assessment tools in the patient with delirium, it was highlighted that there is insufficient amount of data and documentation surrounding in the clinical area. Although pain assessment tools are used, the nurses focus on objective data rather than the use of the tools. It was expressed that the tools currently utilised are not suitable, therefore the nurse uses clinical judging. There is a focus on the patient’s body language and gestures rather than rating a pain score. Balas et al. (2007) examined the Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE) assessing patients with delirium. Results indicated that the Confusion Assessment Method (CAM) was of use and it is questioned whether a similar tool would be suitable to initially assess the level of delirium. Pautex et al. (2006) compared self-assessment scales with observational data. The results appeared to be similar to the nursing experiences of the topics in the orthopaedic setting. One nurse voiced “I tend to focus on observational data because a patient that is delirious post-operatively is unable to convey the pain therefore it is my role and responsibility to assess the gestures”. It was expressed that the incorporation of a suitable assessment tool would benefit all involved and reduce struggles when nursing a patient. It was conveyed that it can be a traumatic experience as the role of the nurse is seen to alleviate stress and this situation can often be uncontrollable.
Pain

All 6 participants nursed orthopaedic patients experience pain post-operatively as part of their daily nursing routine. The participants were familiar with the *Verbal Numerical Rating Scale* (VNR) and the *Visual Analogue Pain Scale* (VAS). However, it was expressed that although the scales are well-developed, they are not suitable for all patients especially the confused elderly on the orthopaedic ward. Bergh et al. (2005) conducted a study to determine the terms used by patients that are confused post-operatively with results showing that the pain scale *Verbal Numerical Rating Scale* (VNR) of little advantage. Findings of the interviews for this study showed, that the majority of nurses felt that pain is a very difficult assessment to make as it is incredibly individualised.
Management of delirium and pain simultaneously

The greatest difficulty that has appeared through collection of data is the struggle experienced nursing a patient who is suffering from delirium and is in pain. The 6 nurses were very concerned with this aspect of care and a range of themes arose. The nurses expressed that they feel “inadequate” as they do not feel prepared and equipped to manage the patient effectively. When asked about an experience of nursing a patient with both, an overwhelming amount of information was provided. The main concerns that the nurses expressed were the lack of an assessment tool, communication, documentation, assessment of risk factors and the effect that both have on a patient’s outcome.
Hierarchy of Pain assessment techniques

- Obtain self-report
- Search for potential causes for pain
- Observe patient behaviour
Pain assessment tools

Research has shown that pain is often under-assessed

Assessment tools include:
- Visual Analogue scale (VAS)
- Present Pain intensity Index from the McGill Questionnaire
- Numerical rating Scale (NRS)
- Pain assessment in advanced dementia (PAINAD)
Complications of inaccurate pain assessment

• Lack of interaction with physiotherapy delayed improvement in mobility
• Loss of appetite
• Decreased interaction with health progression
• Delayed discharge
• Infection
Importance of nurse education

Orthopaedic nursing is seen as a very “heavy” speciality. Nurse education in this area provides a higher standard of care for the patient resulting in a more positive outcome.

Education on the management of pain, delirium and a variety of complications are essential.

Training sessions can be beneficial in understanding nursing interventions required specific to the condition.
Results and Key Findings

It is evident that nurses struggle with caring for patients with delirium and pain collectively. There are elements that surround this challenge including; pre-operative assessment of delirium, assessment tools suitable for both delirium and pain, and assessment of risk factors on admission. Also, nurses have expressed feelings of despair and helplessness, especially surrounding family involvement. Furthermore, documentation appears to be of a vital concern to nurses that creates a challenging environment.
Conclusion.

The study findings highlighted similar themes to the search of nursing literature. It is evident that further research is required surrounding the areas of delirium and pain particularly risk factors, documentation and assessment tools.
Reference List

Available on request
Thank you for listening