Experiences of orthopaedic nurses caring for elderly patients with acute confusion

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Acute confusion is a major problem for a large number of orthopaedic patients, particularly older adults. Using a qualitative methodology, this exploratory study examined the experiences of orthopaedic nurses caring for acutely confused elderly patients. Analysis of interviews with ten orthopaedic nurses yielded a thematic framework that was used to code and categorize the data. Nurses determined acute confusion on the basis of observation of patients' behaviours, functioning and orientation as well as their knowledge of factors that predispose patients to the development of acute confusion. No standardized assessment tool or systematic assessment format was used. Once confusion was detected, nurses looked for possible causes. Interventions used by nurses included: constant surveillance, elimination of underlying causes, reorientation strategies, and caring human interactions. For those patients who were disruptive, three additional interventions: sitters, medications and restraints were used. Interviews revealed that acute confusion had far-reaching effects on nurses, patients, room-mates and families. Caring for acutely confused patients increased the nurses' workload, threatened their safety, affected their self-esteem and created mental conflicts. © 2002 Harcourt Publishers Ltd

Editor's comment

The acutely confused patient in an orthopaedic ward can be distressing for the individual and their family. They are also very demanding of nursing staff time and can turn a relatively busy but controlled ward environment into 'bedlam'. In the UK, initiatives such as the National Service Framework for Older People has recognized the need to address both acute and chronic mental health issues related to the elderly (Department of Health 2001). This study surveys the views of nurses and makes inroads into beginning to address the issues in a systematic fashion.

KEY WORDS: acute confusion, older adults, orthopaedic nurses

INTRODUCTION

At 2:30 A.M., Janet went to do her rounds and the next thing that I knew she was hollering for us to come and help her. . . . the patient had her by the scruff of her neck . . . he was really angry and wasn’t going to let her go. He was sitting on the side of the bed between the four side rails. . . . one leg was out and the other was caught in the side rail. He had his dressing torn off; all the steri-strips were off so his incision was bleeding. He had his I.V. pulled out and he thought that he was in a make-believe hospital and there were men going to kill him.

The above situation was encountered by an orthopaedic nurse caring for an acutely confused older patient. Surgery is a major precipitating factor for the onset of acute confusion and the incidence is particularly high, up to 70%, for patients undergoing surgery for a fractured hip (Foreman 1993, Kane & Kurlowicz 1994, Milisen et al. 1998a). Research demonstrates that patients who experience acute confusion have an increased risk of complications and negative outcomes (Foreman 1993, Foreman & Grabowski 1992,
Acute confusion develops abruptly over a period either hyper- or hypoactive (Ignatavicius 1999). Presentation, and a change in psychomotor activity, include a reduced level of consciousness, disorientation, and illusions (Foreman et al. 1999). Other manifestations with insomnia at night and daytime drowsiness demonstrate disturbances of the sleep–wake cycle and higher incidence of cognitive impairment (Foreman & Zane 1996, Hall & Wakefield 1996). Acute confusion tends to be multifactorial and probably results from an interaction between factors within the individual and factors in the hospital environment (Inouye & Charpentier 1996). Personal precipitating factors that have been identified include: polypharmacy, fracture on admission, immobility, history of psychiatric illness or previous episodes of acute confusion, underlying dementia, dehydration, malnutrition, infection and malignancy (Evans et al. 1993, Hall & Wakefield 1996, Inouye & Charpentier 1996, Inouye et al. 1999, Matthiesen et al. 1994). In the hospital environment, precipitating factors such as relocation, sensory overload/deprivation, sleep disruptions, use of restraints, and equipment such as intravenous pumps and catheters may also result in acute confusion (Foreman & Zane 1996, Inouye & Charpentier 1996, Matthiesen et al. 1994, McBride 1992). Conditions of stress such as pain, anxiety, and lack of social support can also precipitate acute confusion (Foreman & Zane 1996, Kozak-Campbell & Hughes 1996).

During surgery, such factors as anaesthesia, hypotension, hypoxia and hypothermia may contribute to the development of acute confusion (Foreman 1993, Marshall 1993). Bowman (1997) found that patients experiencing emergency, orthopaedic surgery were nearly twice as likely to experience confusion as patients undergoing planned, orthopaedic surgery. In the post-operative period, an acutely confused patient’s inability to communicate his pain may interfere with his ability to co-operate with nursing interventions such as turning, deep breathing and mobility (Miller et al. 1996).

Instruments have been developed to assist nurses in assessing acute confusion. Three widely available and well-recognized screening tools are the NEECHAM Confusion Scale (Neelon et al. 1996), the Clinical Assessment of Confusion-A (CAC-A) (Vermeersch 1990) and the Confusion Assessment Method (Inouye et al. 1990).

In the institutional setting, the three most common interventions for confusion reported to be used by nurses are medications, restraints and the use of sitters (Shedd et al. 1995). Yet, the use of medications and restraints can be the beginning of a downward spiral as subsequent problems with incontinence, immobility, skin breakdown, decreased social interaction and eventually depression occur (Sullivan-Marx 2001, Tappen & Beckerman 1993).

LITERATURE REVIEW

For many nurses, alteration in mental status tends to be loosely described as confusion. Indeed, confusion has become an umbrella term for two major, distinct syndromes encountered by health care workers: (1) an acute, reversible condition of relatively short duration (acute confusion, acute confusional state, or delirium), and (2) a chronic, irreversible condition marked by progressive decline (dementia). Although acute and chronic confusion share many common features, the significant differences in presentation and treatment have been well documented in the literature (Foreman & Zane 1996, Hall & Wakefield 1996, Matthiesen et al. 1994, Ignatavicius 1999, Rapp and Iowa Veterans Affairs Nursing Research Consortium 2001).

Patients with acute confusion demonstrate changes in cognition such as decreased memory, concentration, registration, thinking, reasoning, and judgement. Acutely confused patients are distractible; have a reduced ability to maintain attention on external stimuli, and may experience perceptual disturbances such as hallucinations and illusions (Foreman et al. 1999). They often demonstrate disturbances of the sleep–wake cycle with insomnia at night and daytime drowsiness (Ballard-Ferguson 1997). Other manifestations include a reduced level of consciousness, disorientation, and a change in psychomotor activity, either hyper- or hypoactive (Ignatavicius 1999). Acute confusion develops abruptly over a period of hours or days and symptoms fluctuate during the day but worsen at night (Foreman 1993, Foreman & Zane 1996, Foreman et al. 1999, Kane & Kurlowicz 1994).

Older patients are more vulnerable to developing acute confusion because of decreased physiological reserves, changes in vision and hearing, and higher incidence of cognitive impairment (Foreman & Zane 1996, Hall & Wakefield 1996). Acute confusion tends to be multifactorial and probably results from an interaction between factors within the individual and factors in the hospital environment (Inouye & Charpentier 1996). Personal precipitating factors that have been identified include: polypharmacy, fracture on admission, immobility, history of psychiatric illness or previous episodes of acute confusion, underlying dementia, dehydration, malnutrition, infection and malignancy (Evans et al. 1993, Hall & Wakefield 1996, Inouye & Charpentier 1996, Inouye et al. 1999, Matthiesen et al. 1994). In the hospital environment, precipitating factors such as relocation, sensory overload/deprivation, sleep disruptions, use of restraints, and equipment such as intravenous pumps and catheters may also result in acute confusion (Foreman & Zane 1996, Inouye & Charpentier 1996, Matthiesen et al. 1994, McBride 1992). Conditions of stress such as pain, anxiety, and lack of social support can also precipitate acute confusion (Foreman & Zane 1996, Kozak-Campbell & Hughes 1996).

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Although the literature is replete with suggestions for interventions, there is little evidence that any of them are effective (Bair et al. 1999, Cronin-Stubbins 1996). A study by Inouye et al. (1999) identified that a multicomponent intervention decreased the development of delirium. However, once acute confusion occurred, the interventions did not affect severity or rate of recurrence (Foreman et al. 2001). Nursing interventions for acute confusion are aimed at maintaining patient comfort and safety; identifying, reducing or eliminating known causes; supporting patients’ normal physiological functions; reducing stressors in the environment; reorientation; communicating therapeutically; and avoiding restraints (Foreman et al. 1999, Foreman et al. 2001, Kane & Kurlowicz 1994, Rapp & Iowa Veterans Affairs Nursing Research Consortium 2001). Many of the suggested interventions are the result of recommendations for nursing care of chronically confused patients (Rapp & Iowa Veterans Affairs Nursing Research Consortium 2001). There are little data in the literature about the impact of caring for acutely confused patients (Rapp & Iowa Veterans Affairs Nursing Research Consortium 2001). A study by Inouye et al. (1996) conducted by the researcher. 

METHOD

Setting

Since the literature clearly documents a high incidence of acute confusion among elderly patients undergoing orthopaedic procedures, this study was conducted on a 37-bed orthopaedic unit in a 450-bed tertiary care hospital in eastern Canada. The average age of patients on the unit was estimated to be at least 70 years. The most common surgical procedures included total hip and knee replacements and repair of fractured hips.

Purposive sampling resulted in ten female participants who were all registered nurses working full or part-time on the surgical orthopaedic unit. Six of the ten nurses had baccalaureate degrees in nursing; four were graduates of 2- or 3-year diploma programmes. Clinical nursing experience varied from 10 months to 30 years, with an average of nearly 12 years.

Data collection and analysis

Both the university and hospital ethical review committees approved the research proposal. Following explanation of the study and completion of a consent form, data were collected via formal, semi-structured, tape-recorded interviews conducted by the researcher.

The qualitative data analysis approach ‘Framework’, described by Ritchie and Spencer (1994), was used to guide the analysis. Through five distinct but highly interconnected stages of analysis, ‘Framework’ provides a comprehensive and systematic way of analysing textual data to elicit key issues and themes. Stage one is ‘familiarization’ in which the researcher became immersed in the data through transcription of interviews, reading the transcripts and reflecting on the interviews. The second stage, ‘identifying the thematic framework’ involved development and refinement of a category scheme (framework) which reflected emerging issues and recurrent themes. In ‘indexing’ the finalized version of the thematic framework was used to code and analyse all interviews. The fourth stage, ‘charting’, involved display of the data in charts with headings and sub-headings reflecting the thematic framework. The final stage, ‘mapping and interpretation’, was a synthesis of the data and a writing up of the findings with examples from the data. In this stage, the findings were also linked to related literature to highlight new contributions.

FINDINGS

The participants of this study reported that acute confusion is a ‘regular occurrence’ and is much worse in the evening and at night. Amongst their patients, acute confusion tends to develop on the day following surgery, although the onset may be delayed several days. For some patients, the confusion is ‘just a night-time thing’. Generally, the confusion resolves in three to seven days. A surprising finding was that four out of the ten more experienced nurses felt that the incidence of acute confusion on the unit had decreased in recent years, attributed to a concerted effort to give patients Tylenol plain (acetaminophen) to manage post-operative pain. As one experienced nurse described, ‘the acutely, wildly confused people, swinging off the frames of the bed and just that type of thing I don’t see nearly as much’. The following discussion presents the research findings according to the study questions.

1. How do nurses decide that a patient is acutely confused?

Nurses assessed the possibility of acute confusion according to (1) predisposing factors and (2) behaviours. Predisposing factors included baseline risk factors present on admission as well as hospital-related precipitating factors. Behaviours included all the behaviours demonstrated by patients that led the nurse to conclude that the patient was acutely confused. Although participants expressed confidence in their ability to identify acute confusion, none used a systematic assessment or used a formal method of mental status testing. Instead, identification of acute confusion was made on the basis of patients’ responses to
questions about orientation and nurses’ observation of patient behaviour. More experienced nurses were able to detect subtle changes. Speaking about patient’s responses to questions about orientation, one nurse replied:

'Very often, they are confused, they have a problem with memory, but they can hear. They can understand what you are saying, but they are having difficulty remembering what you said five minutes ago.'

Other patients were described as ‘Houdinis’, able to get out of any restraint. One nurse even recounted how one patient, restrained in bed, managed to get up and walk down the corridor – with the bed strapped to his back. Acutely confused patients often demonstrated violent and aggressive behaviours that caused them to resist nursing care. For example, one patient managed to release the trapeze bar from its frame and hurled the trapeze through a glass window into the corridor.

Participants also reported numerous anecdotes about perceptual changes such as patients talking to people who were not present in the room, or seeing ‘bugs’ on the wall. Many acutely confused patients became paranoid and refused medications or food because they felt the nurse was trying to poison them. Participants gave many examples of observing patients’ memory problems, disorientation, disturbances in the sleep–wake cycle and inability to concentrate.

Once participants were alerted to the possibility that the patient was acutely confused, their assessment included looking for causes. Most often, nurses reported examining laboratory values especially the electrolytes, haemoglobin, and oxygen saturation levels but it was their perception that abnormal laboratory results were rarely found. Nurses also checked whether any new medications had been ordered for the patient, assessed for infection or pain, and considered the possibility of cerebral infarction.

2. How do nurses manage the care of an acutely confused patient?

The nurses in this study described five major strategies to manage confusion: constant surveillance, elimination of underlying causes, human caring, reorientation strategies, and strategies for disruptive patients. The nurses’ primary focus was safety of the patient. If the patient was quiet, nurses tended to observe him from the periphery. Nurses emphasized the trial and error nature of the
interventions; need for consistency of approach, and warned that what works for one patient may not work for another.

**Constant surveillance**

Nurses agreed that acutely confused patients require constant observation to ensure safety. Unfortunately, the unit’s private rooms were all located farthest away from the desk. To protect the patient, nurses tended to raise side rails and practice constant vigilance. In some cases, especially at night, a confused patient was moved to an area, such as near the nurses’ station for closer observation. Some participants reported that, at night, patients seemed to settle when they were brought out to sit at the nursing station where they could watch the nurses working and talking.

**Elimination of underlying causes**

Nurses attempted to reduce or eliminate possible causes of confusion by checking a variety of underlying causes, such as: whether the bed was soiled or whether the patient needed to use the bathroom, was cold or hungry, or needed analgesia. Nurses administered Tylenol plain two tablets every four hours while the patient was awake for post-operative pain beginning as soon as the patient was able to tolerate oral feeding. Narcotics were used for breakthrough pain.

**Human caring**

Throughout the interviews, there was a strong emphasis on caring interactions between the nurse and patient. Nurses stressed the need to be gentle, to speak in calm tones, to hold the patient’s hand, to provide reassurance, and to talk to the patient. As one nurse poignantly stated,

> You’re their lifeline. You’re the one that is giving them everything and you know most elderly patients are so happy to have a nurse look after them – appreciative and grateful. Just remember that they’ll come out of it (the confusion) and realize what you did and maybe someday a nurse will do it for you or your grandmother or your dad or whatever.

Two nurses praised the calming benefits of therapeutic touch, a technique which involves the nurse holding her hands a short distance away from the patient’s skin in order to sense and smooth the patient’s energy field (DuGas et al. 1999).

**Reorientation strategies**

Participants described a wide array of interventions aimed at reorienting the acutely confused patient, such as providing hearing aids and glasses; writing on whiteboards at the foot of the bed; reintroducing themselves frequently; incorporating orientation information into conversation; requesting family members to bring familiar items from home; and having timepieces such as clocks or calendars available. Some nurses stated that ambulating or sitting patients up in bed helped patients better see their environment. Yet, as some nurses cautioned, frequent reorientation may also serve to increase patient agitation. Rather than frequent reorientation, some nurses suggested distraction or reminiscence.

**Strategies for disruptive patients**

Nurses conceded that acutely confused patients sometimes became unmanageable and disruptive. For these patients, participants reported three types of interventions: sitters, medications and restraints.

Sitters, preferably family members, were the intervention of choice for patients whose behaviour was unmanageable. Participants stressed that being a sitter for an acutely confused patient can be very difficult and tiring work, especially for frail, elderly spouses.

Medications were used to varying degrees. The medication mentioned most frequently was Haldol (haloperidol). Some participants said that they rarely use sedation while others used it routinely. Although nurses demonstrated an awareness of the proper dosage schedule for Haldol, many were reluctant to give frequent doses to an older patient.

Restraints were used as a last resort and only with family permission. Several nurses provided anecdotes about patients who became more agitated and escaped from restraints.

She got out of the Segufix (restraint) and got out of bed. We put a second Segufix on her; she got out of the second Segufix. She got out of the two of them at the same time and fell and broke her hip.

Geri-chairs were also used but nurses advised that a snack, book, or something to occupy the hands needs to be placed on the tray in front of the patient.

**Strategies nurses used to cope**

As acutely confused patients cannot be rushed or forced, participants suggested that nurses need to be flexible and wait to provide nursing care when the patient is more amenable to receiving it. One experienced nurse commented that it is often predictable which nurses will have trouble with their patients, particularly those nurses who are always so busy... and trying to do things with them and trying to make them do things... They have their plan of care and they want to get that done no matter what and by God, the patient is going to do what I want them to do. !

Taking another nurse or orderly in to assist with care was suggested as a way to deal with aggression. Several participants commented that female patients may settle down when they hear a male voice. Nurses stated that creative staffing assignments helped them to cope with caring for confused patients. For example, assigning the confused patient to a nurse on an eight-hour shift instead of a 12-hour shift means that one nurse does not have to feed the confused patient all three
meals. To restore normal patterns of intake and output, participants recommended that catheters and intravenous lines be removed as soon as possible. Experienced nurses emphasized that nurses need to learn to ask for help when they need it. The one resource referred to most often was the strong sense of support from co-workers and the nurse manager which enabled nurses to cope with their workloads.

3. How does caring for an acutely confused patient affect the nurse?

Adjectives that nurses used to describe caring for acutely confused patients included: time-consuming, frustrating, challenging and exhausting. Effects were predominantly felt in four areas: workload, safety, mental conflicts and self-esteem.

Workload
Caring for acutely confused patients greatly increased the nurses’ workload. The constant surveillance needs required ‘many more trips up and down the hall’. Confused patients had greater physical care needs such as turning, transferring and feeding. Since confused patients were often unable to tell nurses when they needed to use the bathroom, they required more time to toilet and provide continence care. Nurses were required to restart intravenous infusions, reapply dressings, and spend much time explaining procedures and mobilization requirements. They often needed to ‘cajole them into taking their medication’ and ‘play little games’ to gain patients’ co-operation. Dealing with concerned families was also very time-consuming.

Safety
Nine of the ten nurses admitted to having experienced physical aggression including being ‘slapped’, ‘punched in the head’, or strangled with a stethoscope. Nurses were also the object of much verbal aggression such as rude remarks, sarcasm and name-calling. Interestingly, none of the nurses viewed personal safety as a major issue. As one nurse explained, ‘It scared me at first but I learned to watch the hands and sometimes I take another nurse with me’.

Mental conflicts
Caring for confused patients created dilemmas for nurses. The less experienced nurses in particular experienced more uncertainty over which interventions might be useful.

Self-esteem
Because of the increased workload, nurses were not always able to finish all the work on their shift, which often made them feel incompetent and slow. They also experienced guilt when using restraints or when they became short-tempered with patients. Participants indicated that acute confusion had far-reaching effects. Anecdotes revealed that some patients clearly remembered their confusional episode and were later devastated to learn that they had behaved badly or hurt a nurse. Nurses reported that room-mates experienced many disruptions to their routine and may have had to wait longer to receive care. In addition, participants explained that families experienced stress and may have been shocked and embarrassed by their acutely confused relatives’ behaviour.

DISCUSSION
The findings of this study support current knowledge related to prevalence, onset, duration and course of acute confusion. An unexpected finding which negates the literature is the report that the incidence of acute confusion is decreasing due to routine use of Tylenol plain in the post-operative period. Nurses in this study recognized that multiple factors contribute to the development of acute confusion. Medications, particularly those with anti-cholinergic effects or potent central nervous system effects, are the most frequently cited cause of acute confusion (Foreman et al. 1999, Ignatavicius 1999). Infection is the second most prevalent aetiology (Foreman 1993, Foreman & Zane 1996). In the elderly client, acute confusion is a cardinal sign of infection but older clients may not demonstrate an increase in their white cell count in response to infection (Foreman & Zane 1996). Post-operative pain may contribute to the development of acute confusion. Milisen et al. (1998b), report that post-operative pain tends to be undertreated in elderly patients. As evident in this study, confused patients may not be aware of their pain and as a result may re-injure themselves or compromise the integrity of the surgical intervention. Since acute confusion impairs the patient’s ability to communicate pain, it is important for nurses to provide round-the-clock dosing of analgesia rather than on an as-needed basis (Milisen et al. 1998b). Patients should receive sufficient analgesia to relieve pain but not enough to cause daytime drowsiness that may increase the risk of falls (Matthiesen et al. 1994). Nurses vividly described an array of behaviours that acutely confused patients exhibit. Two behaviours, amazing strength and oblivion to pain, have not previously been documented.

Nurses in this study were not able to articulate a systematic means of assessing confusion. Foreman and Grabowski (1992) emphasize that assessment must be systematic to ensure that changes reflect alterations in patient status not differences in performance of the assessment. It is evident,
that despite the availability of bedside assessment tools, nurses continue to base assessments on observations of patient behaviour, functioning and orientation. Nurses traditionally rely heavily on orientation as a significant indicator of changes in mental status but orientation is one of the least sensitive markers of confusion and misses other vital areas of cognition such as memory, concentration and abstraction (Foreman 1991, Lasis et al. 1993, Stanley 1995). The literature recommends that assessments be performed at least once per shift or more often if necessary (Eden & Foreman 1996, Hall & Wakefield 1996). Patients can be effectively assessed through general conversation and observation during routine care if supplemented with a bedside cognitive mental status assessment that incorporates behavioural parameters (Foreman & Zane 1996, Inaba-Roland & Maricle 1992). Many authors recommend baseline assessment prior to surgery for all older adults to identify those patients at highest risk for acute confusion (Eden & Foreman 1996, Simon et al. 1997). Baseline assessment should include history of recent mental status changes, medication use, medical conditions, functional level and alcohol history (Matthiesen et al. 1994).

Nursing interventions to manage behaviours of acutely confused patients varied with the nurse and the patient. Safety was of primary concern to nurses. Since patients can injure themselves trying to climb over and between side rails, Ribby and Cox (1996) recommend raising only the top rails if the bed is equipped with both upper and lower sets of side rails. To assist with constant surveillance, the literature recommends placing confused patients in a room near the nursing station (Kane & Kurlowicz 1994, Ribby & Cox 1996). However, these rooms are often too noisy (Rosen 1994). Re-orientation strategies should be done in a supportive and non-threatening manner (Matthiesen et al. 1994, Rosen 1994). Repetitive questioning may either increase confusion or allow patients to memorize the correct responses to questions (Hall & Wakefield 1996). Continuity of staff is important to increase familiarity for the patient and to allow for earlier detection of changes in patients’ condition (Rosen 1994). In the management of acute confusion, Halodol (haloperidol) is the antipsychotic of choice because it is most effective and has the lowest incidence of adverse side effects (Hall & Wakefield 1996, Kane & Kurlowicz 1994). Confusion protocols with specific guidelines for drugs and dosages to manage the behavioural manifestations of acute confusion have been developed (Rapp & Iowa Veterans Affairs Nursing Research Consortium 2001, Ribby & Cox 1996, Simon et al. 1997). Generally, the use of restraints should be avoided as they may increase fear and confusion and lead to falls and injuries (Ballard-Ferguson 1997, Ignatavicius 1999, Milisen et al. 1998b). Rather than use restraints, Bradley and Duffon (1995) recommend strategies such as assessing why the behaviours occur, better pain management, time to exercise and toilet patient, and flexibility of care.

Participants stressed the importance of caring human interactions with the patient, which is an area not previously emphasized. In contrast, previous work has focused on discovering and treating the cause of confusion, use of reorientation strategies, and manipulation of the environment. The effectiveness of many nursing strategies has not been proven. Cronin-Stubbbs (1996) undertook an analysis of studies representing treatment of acute confusion and found that only nine studies met the criteria of having a treatment and control group; definitions of acute confusion varied across studies; measurement tools failed to capture the multidimensional nature of confusion, and sample sizes were small. Inouye et al.’s (1999) study using standardized protocols to manage cognitive impairment, sleep deprivation, immobility, visual impairment, hearing impairment and dehydration resulted in reduction in numbers and duration of episodes of acute confusion but had no effect on severity or recurrence rates. Despite research into a variety of psychosocial and physiologically based interventions, the incidence of acute confusion remains high. Comprehensive interventions aimed at managing behaviour of acutely confused patients are described by Ignatavicius (1999) and Rapp and Iowa Veterans Affairs Nursing Research Consortium (2001).

There is a dearth of literature pertaining to the impact of acute confusion. In Brannstrom et al.’s (1989) study comparing a group of 35 confused and non-confused hip fracture patients, many of the problems with nursing care arose not from the fracture and hospitalization but from the acute confusion. The current study details aspects of physical care of confused patients that increases the nurses’ workload. The findings also illuminate other aspects such as safety, creation of mental conflicts and self-esteem that are affected by caring for acutely confused patients.

**IMPLICATIONS FOR PRACTICE**

The findings of this study have significant implications for nursing practice and education. Escalation of confusional behaviours in the evening and at night highlights the need for adequate staffing. Safety of nurses is another area of concern, as acutely confused patients can be violent and aggressive while simultaneously demonstrating amazing strength and poor judgement. More emphasis also needs to be given to the needs of the hypoactive type of acutely confused patient. Patients’ recollections of their confusional episodes should be a caution to all nurses that how they approach patients, treat them, and react to them are...
of vital importance and may have long-lasting psychological effects. Participants felt that a baseline mental status assessment at a pre-operative teaching clinic prior to surgery would be beneficial. However, those patients at highest risk tend to be emergency admissions who would not attend a pre-operative teaching clinic.

In the area of nursing education, the high incidence of acute confusion clearly indicates that nursing students need theory and clinical practice related to acute confusion. They also need opportunities to discuss issues such as restraints, sedation and sitters.

Practising nurses require additional in-service education.

AREAS FOR FUTURE RESEARCH

The findings of this study relied on verbal reports from a small sample of nurses in one area of practice. While providing rich data through in-depth interviews, this research needs to be replicated in other settings. Studies comparing nurses’ abilities to assess acute confusion using formal assessment tools versus observation are also warranted. Nurses’ attitudes towards using such assessment tools require further exploration. In addition, the entire area of effectiveness of nursing interventions requires more research. An area for development is the production of self-guided learning modules on acute confusion for nurses as well as educational brochures and videos for patients and families.

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