Caring for a patient with delirium in an acute hospital: the lived experience of cardiology, elderly care, renal and respiratory nurses

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Both authors were involved in the concept and implementation of the project, analysing the data and the formation of the final themes. Joanne Brooke took the lead role in writing the paper. Both authors are in agreement with the content of the manuscript.

ABSTRACT

Aims: To explore the lived experience of caring for a patient during an acute episode of delirium by nurses working in cardiology, elderly care, renal or respiratory specialities.

Background: A missed or delayed diagnosis of delirium in an acute hospital setting adversely impacts on patient outcomes. Nurses are the best placed healthcare professionals to identify a change in patient's cognitive status, but struggle to do so.

Design: Inductive interpretative phenomenology.

Methods: Semi-structured interviews with nurses working in an acute hospital in England between November 2016 and March 2017 (n=23). Interviews were transcribed verbatim and analysed using thematic analysis.

Findings: Three themes were identified: 1) 'sometimes delirium is confusing', difficultly in differentiating between delirium and dementia 2) 'everyone in the ward was looking after him', a need for collaborative working to provide harm free care and 3) 'he was aggressive with us, but after treatment he was a gentleman', acceptance and tolerance of aggression.

Conclusion: The need for education across specialities, with a combination of classroom and simulation teaching. Alongside, the development of structures to support: the development of nursing teamwork, and reporting of near miss incidents that occur with patients during an episode of delirium.

SUMMARY STATEMENT

What is already known about this topic?

- Delirium is a complex syndrome, which is an acute medical emergency.
- Delirium is frequently misdiagnosed or there is a delay in diagnosis which impacts negatively on patient outcomes.

- Nurses are the best placed healthcare professionals to identify delirium, but struggle to do so.

What this paper adds:

- Nurses working in cardiology, elderly care, renal and respiratory specialities found the overlapping symptoms of delirium and dementia confusing.
- Collaborative nursing teamwork is required to care for patients with delirium to create a safe environment.
- Nurses accepted and tolerated acts of aggression from patients with delirium, and therefore did not always formally report these.

The implications of this paper:

- The need for interprofessional training and education across different clinical specialities, which supports experiential learning.
- The development of an organisational model of care to support and develop nursing and interprofessional teamwork.
- The need for structured support to enable nurses to report near miss incidents that occur when patients during an episode of delirium.

Keywords

'Delirium', 'dementia', 'nurses', 'qualitative research', 'hospitals, general', 'aggression'

INTRODUCTION

Delirium is an acute medical emergency (Whittamore et al., 2014). The prevalence of delirium in adult patients in an acute hospital setting has been estimated to range from 19.6% to 50% (Ryan et al., 2013; Fong et al., 2009). Delirium adversely impacts on patient outcomes if early diagnosis and treatment does not occur, such as an increased length of hospital stay, a higher risk of discharge to a

care home and death (Kiely et al., 2006; McAvay et al., 2006). However, symptoms of delirium are still misinterpreted leading to a missed or delayed diagnosis, which occurs across a range of hospital settings (Inouye et al., 2014; Barron et al., 2013; Hey et al., 2015).

Clinical presentations of delirium are characterized by a disturbance or fluctuation in a patient's level of consciousness, with poor attention, acute confusion and cognitive and perceptual disturbances (Kolanoswki et al., 2010). There are three presentations; hyperactive, hypoactive and mixed delirium, with identifiable predisposing and precipitating risk factors (Inouye and Charpentier 1996). A clinical presentation of hyperactive delirium may include vivid hallucinations and illusions, paranoia, intense feelings of fear and anger with a miss trust of healthcare professionals, leading to challenging and aggressive behaviour (Andersson et al., 1993). Hypoactive delirium may include intense periods of drowsiness, with patients allowing care to be done to them and appearing indifferent to their surroundings and experiences (Liptzin and Levkoff 1992). Mixed delirium is an unpredictable fluctuation between hyperactive and hypoactive delirium (O'Keffee and Lavan 1997).

The best placed healthcare professionals to identify a change in patient's cognitive status are nurses (Belanger and Ducharme 2011; Fick et al., 2007). However, nurses have reported the identification of delirium as challenging, especially in older patients where behavioural changes may not be recognised (Wang and Mentes 2009; McDonnell and Timmins 2012). Nursing education has not been developed to support nurses to identify delirium. Whereas, medical education includes the: identification of risk factors, clinical presentations, screening and detection tools, and pharmacological and non-pharmacological interventions (Inouye et al., 2014; Fleet and Ernest 2011).

The lived experiences of delirium from the perspectives of nurses has been explored in orthopaedic, palliative, elderly, and intensive care units (Belanger and Ducharme 2011). Information regarding other specialities such as cardiology, renal and respiratory is currently missing. A robust understanding of nurses' experiences from different specialities may identify unique barriers and challenges. Nurses working in cardiology, renal and respiratory may have opposing perspectives on

the challenges, needs and strain of caring for patients with delirium compared to nurses specialising in elderly care. An understanding of these issues could enable the development of resources to support nurses both within and across specialities, and inform the development of policies and guidelines to enable early identification, care and treatment for patients with delirium in the acute hospital setting.

METHODS

Aim

The aim of this study was to explore the lived experiences of caring for a patient during an acute episode of delirium by nurses working in cardiology, elderly care, renal or respiratory specialities.

Design

An explorative interpretative phenomenological design was applied. Two registered nurses conducted the study, both agreed to identify and bracket their preconceptions prior to and during the process of data collection and data analysis. The researchers' recognised their underlying knowledge and experience of delirium, which would influence their interpretation of nurse's experiences; therefore they worked within a Heideggerian framework of interpretative phenomenology (Heidegger, 1962).

Participants

Registered nurses were recruited from an acute hospital in England. Non-probability sampling supported the selection of registered nurses working in one of four specialities, who were experienced in caring for patients with delirium (Cresswell and Plano Clark 2011). The inclusion criteria were: registered nurses working as a junior staff nurse within either cardiology, elderly care, renal or respiratory speciality wards. The exclusion criteria were: nurses not employed by the NHS Trust or employed for less than three months. Participants were recruited via flyers in staff rooms

and during scheduled team meetings, with an onus on staff to contact a member of the research team.

Recruitment of participants from each speciality continued until data saturation occurred**.** Data saturation was operationalized as complete when rich and thick data had been collected (Dibley, 2011), and when no new additional information was emerging (Guest et al., 2006).

Data collection

Data were collected through semi-structured interviews. All interviews were conducted in private rooms within NHS Trust premises during nurse's routine breaks from clinical duties, and were facilitated by the first author (JB), who had no managerial responsibility within the hospital where recruitment occurred and no previous relationship with any of the participants. A question route was developed and applied to ensure consistency and comparability of data. The question route was developed from the Delirium Experience Questionnaire (Breitbart et al. 2002), and included open questions to explore nurses' lived experiences of caring for a patient during an acute episode of delirium. Relevant and novel comments were followed up to ensure the fullness and richness of data. Questions included: 'Can you please describe your experience of when you cared for a patient with delirium', supplement questions included: 'What were their symptoms?' and 'What was the impact on you caring for this patient?' Each interview was audio recorded and transcribed verbatim.

Ethical considerations

Ethical approval was gained from the University Research Ethics Committee, Health Research Authority and the local Research and Development Office at the hospital where recruitment occurred. An ethical consideration was to maintain the confidentiality of staff who participated, therefore ward managers were not informed which nurses did or did not participate. All nurses were informed of the voluntary nature of participation and their decision would not impact on their role within the hospital. Confidentiality of the information provided by nurses was also assured, unless any information disclosed raised concern for the safety of patients or staff.

Data analysis

Data was analysed using inductive thematic analysis within an interpretative phenomenological framework. The six stages of Braun and Clarke's (2006) thematic analysis were adhered to, to support trustworthiness and credibility, each researcher (the two authors): 1) became familiar with the data, 2) created a list of ideas and the initial codes, 3) organised codes into broader themes. Then together through a series of meetings: 4) reviewed the themes by returning to the data, 5) defined the essence of each theme, 6) conceptualised the themes with extracts from the data. All discrepancies were discussed by the researchers until agreement was reached. During the process of data analysis each researcher completed a detailed audit trail which documented the process and reasoning of each individual and joint decision, therefore the analysis followed a transparent reflexive and iterative process. The results of this study will presented with direct quotes to demonstrate a rich description of the themes, this approach will allow the reader to examine the data and the development of themes, and to examine the generalisability of the findings to their own care settings and populations (Noble and Smith, 2015).

RESULTS

In total 23 nurses were recruited, including nurses from: cardiology (n=6), elderly care (n=5), renal (n=6), and respiratory (n=6), with an under representation of male nurses (refer to Table 1).

Insert table 1 HERE

The study participants were registered nurses working in cardiology, elderly care, renal or respiratory specialities in an acute hospital in England. Three themes were identified: sometimes delirium is confusing, everyone in the ward was looking after him, and he was aggressive with us, but after treatment he was a gentleman.

Sometimes delirium is confusing

Nurses working in elderly care, renal and respiratory wards discussed the confusing nature of recognising the difference between dementia and delirium due to an overlap of symptoms, and a

lack of delirium in their education and training. Nurses discussed the importance of experiential learning to support them to care for a patient with delirium, and recognised the transferability of their skills gained from caring for patients with dementia.

Differentiating between delirium and dementia

Nurses reported the need for a complete medical history and/or the presence of family members or friends to identify: delirium, dementia or an acute cognitive deterioration in a patient with dementia:

> Sometimes it is confusing for us, because visual and verbal hallucinations occur in both dementia and delirium, is it delirium or dementia that hasn't been diagnosed – (Elderly Care Nurse, Participant 3: ECN 3)

> Sometimes it can be really difficult to tell the difference between dementia and delirium, you need to know the patient's history (Renal Nurse Participant 4: RenN 4)

> People come in with dementia and delirium, so it is quite difficult to work out if they are worse than what they are usually like, if they haven't got a family member with them that is quite hard (Respiratory Nurse Participant 20: ResN 20)

Training in delirium and dementia

Nurses working across specialities reported a lack of training and education in delirium. Nurses from elderly care and renal wards suggested a lack of training led to staff becoming frustrated and stressed, one nurse reflected on her colleagues' frustration and stress, and then accepted this was also true for her:

> Possibly more training on how to handle patients with delirium, as you have some people who just get really frustrated, not at the patient, but as to what to do and get very stressed, but then I don't know of a way of coping (ECN 4)

However, some nurses from cardiology and respiratory recognised dementia training and education had supported them in understanding how to support and care for patients with delirium.

> I have been on the dementia simulation course, which were extremely helpful, because it helped us understand how people can behave and what is the best way to deal with that and how we need to intervene in certain situations (ResN 21)

Experiential Learning

Nurses across all specialities acknowledged the need for experience to learn clinical and communication skills, which supported their understanding of the uniqueness of each patient with delirium:

> Most of the things I have learnt are from experience of caring for patients with delirium. I think there is no training that can be undertaken, because all patients are different (ECN 2)

> I have never done any training around delirium, so I think I just draw from experience. I don't think there is any training just learning from experience (Cardiology Nurse Participant 15: CN 15)

> When I worked in a nursing home I learned a lot from caring for patients with dementia, with patients whose decline was not going to improve, you learnt to just go along with the flow (ResN 18)

Everyone in the ward was looking after him

The importance of teamwork to support patients with delirium emerged across specialities, with an emphasis on the need to provide a safe environment and harm free care. Yet, nurses worried their work load and time constraints impacted on the care they could provide for these patients.

Teamwork

The emphasis on teamwork varied across specialities, cardiology, elderly care and renal nurses provided clear examples of teamwork to support patient's safety. However, respiratory nurses discussed a lack of collaborative working to the extent some of their colleagues refused to care for patients with delirium.

> One patient with delirium, he was sitting on the chair, and he just stood up and tried to walk, but this patient had a fall days before, and everyone in the ward was looking after him because he was at risk of falls (ECN 2)

> If a patient is sitting in their chair and they stand up or try to walk, we all need to know, so we have a few things we do to make sure they are safe (RenN 11)

> During the day it is a little easier to care for a patient with delirium, as you have somebody walking around, so if they attempt to do something, somebody knows and we all jump in (CN 13)

> I find some colleagues they just couldn't cope with patients with delirium, they refused to care for them, because they just couldn't cope with the fact that the patient is aggressive. It is heart breaking because at the end of the day we are here to look after patients (ResN 18)

Restricted time

Elderly care, renal and respiratory nurses all discussed the need for teamwork due to time restraints and the need to manage their competing commitments, alongside the unpredictable nature of caring for a patient with delirium. A lack of time was also cited by the nurses as one of the main reasons for increased stress and distress when caring for a patient with delirium.

> It is very stressful, it takes you more time with these patients, because you thinking what else could happen, you are expecting something to happen, will they jump out of bed, walk by themselves, so your eyes are just on them all the time (ECN 5)

> For me it is extremely distressing, because most of the time you are short staffed, and you are on your own and have 8 patients, and you have 2 confused patients, and you are just everywhere (RenN6)

> I think it is distressing because you are trying to do your best for them, but you can't, you have so much else to do, but you don't have the time, it is having more time (ResN 22)

He was aggressive with us, but after treatment he was like a gentleman

All nurses understood aggressive behaviours as part of the clinical presentation of delirium, and the need to care and wait for the patient to return to 'normal'. Elderly care nurses' citied verbal and physical aggression more than nurses from other specialities, which they found pushed them to their limits. However, all nurses simultaneously accepted and were tolerant of these behaviours, which led to a lack of reporting of actual and near miss incidents.

Aggressive as part of the clinical presentation of delirium

Aggression was believed to be part of the patient's clinical presentation and not part of the patient's personality, which led nurses to believe patients were not being aggressive, but were just scared and frightened.

> When an episode of confusion or aggression happens we all help the nurse who is caring for the patient, just to try and keep the situation calm and allow the patient to come back to normal (ECN 2)

> I remember one patient that was really confused because of the infection, when he was admitted he was so aggressive with us and after treatment he was like a gentleman (ECN 1)

> Aggressive is probably not the right word, but they throw things at you, punch, hit, shout at you, call you names, but you know that this is not them and you have come into nursing to look after someone to get them better (CN 17)

> We had a lovely lady who became confused with a UTI, she was a completely different person, and she was verbally aggressive, she did try to throw things, pinch and punch, but we understood that she was confused (ResN 21)

> I had one patient who was so aggressive, because of the delirium, it was so difficult to take care of her, she almost pushed me to my limits, I had to leave for a little while and then come back. Just five minutes, just to calm down and take a deep breath and then go back to her (ECN 3)

Lack of reporting of actual and near miss incidents

Formal reporting for near miss incidents of aggressive behaviour (Datix) were not completed by elderly care, cardiology and respiratory nurses. However, when nurses started to verbalise their reasoning for not reporting incidents they began to realise this was a transparent method of informing management of the complexities of caring for patients with delirium. Nurses did not want to report incidents as they understood the patient was not intentionally being aggressive towards them, and therefore did not want any repercussions for the patient.

> I have never done a Datix report for a patient that tried to punch me but wasn't successful in punching me, but maybe I should do a Datix, not for anything to be done to the patient, but just to advise the Trust of the situation on the wards (ECN 2)

> No I haven't completed a Datix, I would if they had a fall or something, gosh I have never thought of doing a Datix regarding getting a punch in the face, but isn't that just part of the job? (CN 15)

> I wouldn't do a Datix for a near miss, if I had dodged a punch, I wouldn't do a Datix for that, but if we had contact I might, but I suppose you are meant to do it as a near miss to (ResN 20)

DISCUSSION

Nurses working across elderly care, respiratory, renal and cardiology expressed the confusing nature of the overlap of symptoms of dementia and delirium, although cardiology nurses had insight into how their clinical and communication skills could be applied to care for these patients. Nurses found teamwork amongst their nursing colleagues was essential to provide harm free care to patients with delirium and support them to meet their other work commitments. Respiratory nurses' understood some of their nursing colleagues could not cope with the distressing nature of caring for patients with delirium. All nurses discussed the acceptance and tolerance of aggressive acts towards them as this was 'par for the course' when caring for patients with delirium, which lead to the lack of reporting of actual and near miss incidents.

Sometimes delirium is confusing

An emergent theme was the nurses' confusion between delirium and dementia, this was increased in nurses working in elderly care, renal and respiratory. Nurses' confusion may have developed through: a lack of clinical guidelines that support day to day practice and are applicable for nurses, an overlap of behavioural and psychological symptoms of dementia and delirium superimposed on dementia (Bush et al., 2017; Richardson et al., 2015; Morandi et al., 2017).

Nurses within this study expressed a lack of training and education in delirium. Inadequate knowledge of delirium by nurses has been identified previously with the recommendation for increased nurse education in delirium (Hare et al., 2008; Yevchak et al., 2012). Educational interventions for nurses on delirium have been implemented and found to improve nurses' knowledge (Gesin et al., 2012; McCrow et al., 2014; Wand et al., 2014), with more experienced nurses gaining the most benefit (Meake and Thompson 2011). The results from these studies have been reinforced by an e-learning course for nurses, student nurses and healthcare assistants, which significantly improved all nursing staff's knowledge on delirium (van de Steeg et al., 2015). However,

the impact of nurses' knowledge on their provision of care for patients with delirium has yet to be explored.

Nurses within the current study relied on experiential learning, to support them to care for patients with delirium. Experiential learning occurs when nurses grasp and transform their experiences, this involves the ability to conceptualise a clinical experience, complete a cycle of reflection and then experiment with different care approaches (Kolb, 1984). Davis and Nye (2017) explored the impact of delirium simulation training for student nurses, and found they were able to practice effective communication skills and safety assessments in a non-threatening environment, which stimulated students critically thinking. Nurses in the current study discussed the benefits of a dementia simulation workshop which supported this approach, which suggests experiential learning needs to be considered when developing delirium education and training for nurses.

Everyone in the ward was looking after him

Nurses across specialities valued teamwork to provide harm free care for patients with delirium, although none of the nurses discussed any structures that supported the development of teamwork. This may have impacted on the various levels of teamwork expressed across different specialities. In healthcare, participative teamwork has been operationalised and applied by Brunault et al., (2014) as an organisational model of care. This model includes three domains: vocational training, philosophy of care and interdisciplinary staff meetings. These domains were associated with lower levels of stress reported by nurses and increased social support (Pronost et al., 2012). A further element to support the development of participative teamwork is the perception of organisation support (Brunault et al., 2014), although this was not explored in the current study this may also explain the different levels of teamwork across specialities.

Nurses within this study discussed the need to provide harm free care, previously it has been identified that nurses were influenced by risk reduction and developed a construct of the patient as

a risk object (Schofield et al., 2012). The provision of harm free care in the current study included the need for continuous care, which Schofield et al. (2012) defined as 'continuous surveillance', which is time consuming and stressful for nurses due to competing work commitments. These findings reinforce the need for an organisational model of care to develop participative teamwork (Brunault et al., 2014).

He was aggressive with us, but after treatment he was a gentleman

Nurses in the current study discussed verbal and physical aggression from patients with delirium, but felt it was inappropriate to report these incidents when no harm occurred. The literature exploring verbal abuse and physical assaults on nurses concentrates on emergency departments (Partridge et al., 2017; Nikathil et al., 2017). One study explored the impact of patient violence on nurses across general hospital wards and found higher levels of exposure to violence impacted negatively on job satisfaction, well-being, emotional exhaustion and the development of cynicism (Waschgler et al., 2012). The impact of verbal and physical aggression on nurses and near miss incidents are substantial and need to be recognised across specialities, which can only occur through accurate reporting.

The literature on near miss reporting concentrates on medication error near misses rather than verbal or physical aggression (Haw et al., 2014; Vrbnjak et al., 2016). Reporting of near miss incidents has been integrated into the Openness and Honesty initiative and policy, of when things go wrong: the professional duty of candour (Nursing and Midwifery Council and General Medical Council, 2015). The duty of candour includes: "Your duty to be open and honest with your organisation, and to encourage a learning culture by reporting adverse incidents that lead to harm, as well as near misses" (p.2). The lack of reporting by nurses in the current study prevents managers knowing the implications of caring for a person with delirium and supporting the development of a learning culture through an exploration of near misses involving these patients.

Study Limitations

The limitations of this study include the involvement of nurses from one hospital in England, rather than understanding the issues across hospitals, this study focused on understanding the issues across specialities. Therefore, transferability of the findings needs to occur with caution. The nurses in this study volunteered to participate; therefore they may represent a group of nurses that have experienced more challenging and distressing care with patients with delirium than their colleagues.

CONCLUSION

Nurses struggled to understand the differences between dementia and delirium, but cared for these patients through teamwork, which enabled them to remain empathetic, although this prevented them from reporting actual or near miss incidents of aggression.

The recommendations of this study are specific to the setting where this research occurred, however these recommendations could be explored in the structures of other hospitals to understand how they are supporting their nurses to care for patients with delirium.

Recommendations include the development of nurse education to include delirium, at both undergraduate and postgraduate levels delivered by Higher Education Institutes and NHS Trust hospitals. Nurse education needs to include mixed methods of learning to ensure the development of factual knowledge and clinical skills.

A further recommendation is the implementation of formal and informal structures to support the development of teamwork. In a busy clinical environment that is continuously short of staff this will be difficult but is essential to the support of the nursing team.

The last recommendation is a change in the ethos of reporting actual or near miss incidents, so nurses understand this process supports future patient care rather than detrimental to the patients involved in the incidents being reported. An open transparent process of reporting followed by management involvement and prompt feedback needs to be fostered.

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Table 1: Overview of participants

Speciality	Order interviews completed	Number of interviews	Female (male)	Range of length of interviews (minutes)
Elderly Care	1st	5	4(1)	21-34
Renal	2nd	6	4(2)	18-35
Cardiology	3rd	6	6	20-31
Respiratory	4th	6	6	17-26