Quantity and quality of interaction between staff and older patients in UK hospital wards: A descriptive study

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ABSTRACT

Background: The quality of staff-patient interactions underpins the overall quality of patient experience and can affect other important outcomes. However no studies have been identified that comprehensively explore both the quality and quantity of interactions in general hospital settings.

Aims & objectives: To quantify and characterise the quality of staff-patient interactions and to identify factors associated with negative interaction ratings.

Setting: Data were gathered at two acute English NHS hospitals between March and April 2015. Six wards for adult patients participated including medicine for older people (n = 4), urology (n = 1) and orthopaedics (n = 1).

Methods: Eligible patients on participating wards were randomly selected for observation. Staff-patient interactions were observed using the Quality of Interactions Schedule. 120 h of care were observed with each 2 h observation session determined from a balanced random schedule (Monday-Friday, 08:00-22:00 h). Multilevel logistic regression models were used to determine factors associated with negative interactions.

Results: 1554 interactions involving 133 patients were observed. The median length of interaction was 36 s with a mean of 6 interactions per patient per hour. Seventy three percent of interactions were categorized as positive, 17% neutral and 10% negative. Forty percent of patients had at least one negative interaction (95% confidence interval 32% to 49%). Interactions initiated by the patient (adjusted Odds Ratio [OR] 5.30), one way communication (adjusted OR 10.70), involving two or more staff (adjusted OR 5.86 for 2 staff, 6.46 for 3+ staff), having a higher total number of interactions (adjusted OR 1.09 per unit increase), and specific types of interaction content were associated with increased odds of negative interaction (p < 0.05). In the full multivariable model there was no significant association with staff characteristics, skill mix or staffing levels. Patient agitation at the outset of interaction was associated with increased odds of negative interaction in a reduced model. There was no significant association with gender, age or cognitive impairment. There was substantially more variation at ward level (variance component 1.76) and observation session level (3.49) than at patient level (0.09).

Conclusion: These findings present a unique insight into the quality and quantity of staff-patient interactions in acute care. While a high proportion of interactions were positive, findings indicate that there is scope for improvement. Future research should focus on further exploring factors associated with negative interactions, such as workload and ward culture.

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1. Introduction

Considerable attention has been paid in recent years to the quantity and quality of interactions between staff and older patients in acute hospital settings. In the UK, retrospective analyses of care failures suggest that interactions between patients and

staff, particularly nurses, were of low quality and frequency, undermining quality of care and patient experiences (Care Quality Commission, 2015; Francis, 2013; Maben et al., 2012a). Findings from enquiries into these care failures have been accompanied by a crisis of public confidence in the ability of nurses in general to be compassionate (Maben and Griffiths, 2008; Prime Minister's Commission on the Future of Nursing and Midwifery in England, 2010; Report of the Willis Commission, 2012). A variety of reforms have resulted across the health service, such as changes to nursing education and recruitment (Department of Health, 2013a; Report of the Willis Commission, 2012). While the UK care failures have had particular prominence, evidence suggests that concerns about the frequency and quality of interactions between nursing staff and patients are shared internationally (Corbin, 2008; Kagan, 2014; Reader and Gillespie, 2013). However, surprisingly little is known about the quantity and quality of interactions between staff and patients outside of settings in which care failures have been identified and studied. This paper presents findings based on observations of staff-patient interactions in six hospital wards in two National Health Service (NHS) hospitals.

When people come into hospital, the quality of their interactions with staff is key to shaping experiences during their stay. For example, older people want nurses and others to use interactions to maintain identity ("see who I am"), to create community ("connect with me") and to share decision making ("involve me")' (Bridges et al., 2010). There may also be wider benefits to high quality interactions beyond patient experience. For instance, nurses aim to use their relationships with patients to provide tailored care, comfort and support, including supporting informed decision-making, and assessing responses to treatments, suggesting a clinically therapeutic potential to interactions (Bridges et al., 2013). Furthermore, the links that have recently been indicated between positive experience, patient safety and clinical effectiveness, suggest that quality of interactions may impact on a wider range of important outcomes such as adherence to recommended medication and treatments or technical quality of care delivery (Doyle et al., 2013).

Few studies offer a clear indication of how common the problems regarding staff-patient interactions are. Many that report on staff-patient interactions give retrospective global evaluations using questionnaires. For instance, The 2014 NHS inpatient survey involving 59,000 inpatients showed that 24% of inpatients could not find a member of the hospital staff to talk to about their worries and fears, and 13% did not get enough emotional support from hospital staff (Care Quality Commission, 2015). Measures such as the NHS survey offer a partial view because not everyone can participate, memories may be inaccurate and respondents cannot give a clear view of the frequency of negative experience.

Given the limitations of questionnaire methods, which tend to exclude some of the groups that may be most vulnerable to the impact of negative interactions such as those with cognitive impairment, observational methods may be a more appropriate method to measure the quantity and quality of interactions in general hospital care (Goldberg and Harwood, 2013). A review of the care of older people in 11 acute hospitals in Northern Ireland reported that 67% of 1836 interactions observed were rated as positive and 7% were rated negative (The Regulation and Quality Improvement Authority, 2015). While assessments of interaction quality were made using the validated Quality of Interactions Schedule (The Regulation and Quality Improvement Authority, 2015) the sampling method and context are unclear. A number of studies focusing on the nurse as the unit of analysis indicated that the amount of direct contact time was low, but no data were gathered on interaction quality (Westbrook et al., 2011). No studies have been identified that comprehensively explore both the quality and quantity of interactions with the patient as the unit of analysis in general hospital settings, an important gap given the degree of attention this issue is attracting in the UK and beyond.

The study aims to address the important gap identified. The specific objectives were:

1. To identify the frequency and length of staff-patient interactions.
2. To characterise the quality of staff-patient interactions.
3. To identify associations between negative interactions and patient characteristics, staffing characteristics, interaction characteristics and observation session characteristics.

3. Methods

Data were collected as part of a feasibility study to develop and evaluate a compassionate care intervention for ward nursing teams (Bridges and Fuller, 2014). The data presented here were collected during the baseline phase of the study using a descriptive design.

3.1. Setting and sample

Data were collected in two acute NHS hospitals in England between March and April 2015. Managers of seven medical and surgical wards with high proportions of older in-patients were invited to include their ward in the study. Six wards participated: medicine for older people (n = 4), urology (n = 1) and orthopaedics (n = 1). Each ward had between 28 and 32 beds. We excluded patients identified by the nurse in charge as palliative, critically ill or reverse barrier nursed. All other patients were eligible for inclusion in the study.

Observations were undertaken in randomly generated time slots for ten two-hour sessions on each ward over a three week period (Monday-Friday, 08:00–22:00), there were 60 observation sessions in total. Observation sessions were balanced between wards and time of day. For each observation session, a random number generator was used to identify an index patient who was then approached and invited to take part in the study. If the patient agreed to take part, other patients in their vicinity were also approached and invited. If the index patient declined to take part, a new index patient was selected. This process continued until an index patient agreed to participate.

3.2. Data collection

The quality of interactions was measured using the Quality of Interactions Schedule (QuIS) (Dean et al., 1993), an observation-based tool that has been used in a number of studies in NHS acute care settings. Interactions between staff and patients are coded as positive social, positive care, neutral, negative protective and negative restrictive (Table 1). The QuIS has been shown to be sensitive to change in service quality (Algar et al., 2016; Brooker, 1995; Dean and Briggs, 1993; Health Advisory Service, 1998; Wewers et al., 1994). In long term residential settings QuIS has been shown to be reliable with kappa coefficients of above 0.75 (Dean et al., 1993). Concurrent validity has been demonstrated by the association of increased quantity and quality of interactions experienced by residents with improvements in ratings of residents' cognitive impairment, observed depression, and functional capacities (Dean and Briggs, 1993). QuIS was originally designed for long term settings, and so prior to the current study a protocol was developed for use by the research team to guide its application in acute settings, including a definition of what constituted the beginning and end of an interaction and how to decide between the different ratings (see Table 1) (McLean et al.,