Use of the Quality of Interactions Schedule (QuIS) in assessing negative staff-patient interactions in acute care settings for older people: a content validation study

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ABSTRACT

Introduction

The Quality of Interactions Schedule (QuIS) is an observational tool to assess the quality of staff-patient interactions in a healthcare context. QuIS is a promising measure for the evaluation of compassionate care, particularly where care is being delivered to patient populations, such as older people, who may be excluded from self-completion data collection methods. This study investigates the content validity of QuIS in identification of negative staff-patient interactions in acute care.

Methods

Staff-patient interactions (n=1598) on adult inpatient units with a high proportion of older patients in two UK National Health Service hospitals were observed and rated using QuIS. When rating interactions as negative quality, observers recorded brief field notes to explain the rating. Content analysis was used to develop categories of negative interaction type. These categories were compared to the QuIS negative interaction definitions.

Results

Eighty-eight negative ratings were accompanied by a field note that could be used in the analysis. Five interaction categories were identified: Patient calls for help, call not acknowledged; Staff focused on task and appear to ignore/not hear patient; Patient-led interactions appear dismissed or ignored; Patient prevented from doing something without explanation; Staff interact with each other or talk to relatives, not including patient. There was clear association between the derived categories and QuIS guidance for negative ratings.

Conclusion

These findings support the validity of QuIS data in relation to measurement of interaction quality in acute care settings. Extending the research to a wider range of settings would be useful.

KEYWORDS

Communication, Hospitals, Process Assessment (Health Care), Professional-Patient Relations; Quality of Health Care, Social Skills; Validation Study.

SUMMARY STATEMENT OF IMPLICATIONS FOR PRACTICE

What does this research add to existing knowledge in gerontology?

- Methods for measuring the quality of acute care staff interactions with older people are under-developed.
- This methodological study provides new insight into the validity of the Quality of Interactions Schedule (QuIS), a promising measure of relational care, which is inclusive of older recipients of care.
- The study supports the validity of researcher observed staff-patient interactions labelled as negative quality.

What are the implications of this new knowledge for nursing care with older people?

- Information about the validity of QuIS supports the collection of appropriate and relevant data to support the delivery of high-quality care to older people.
- In addition to evaluation research, QuIS has potential as a peer review tool to support practice reflection in older people's care.

How could the findings be used to influence policy or practice or research or education?

- The study adds further support for the use of the QuIS as an outcome measure for evaluation of interventions to enhance compassionate, high quality care for older people in acute care settings.

Use of the Quality of Interactions Schedule (QuIS) in assessing negative staff-patient interactions in acute care settings for older people: a content validation study

Older people's experiences in hospital are shaped by interactions with health care workers, often members of the nursing team (Bridges et al., 2019a, Evans, 2016, Fosbinder, 1994). These interactions are the medium through which nursing care is provided (Evans, 2016). As such, quality of staff-patient interaction is an important outcome measure for the assessment of care and for evaluation of service improvements targeted at the relational aspects of care. As staff-patient interactions are complex phenomena, dynamic in nature, subjectively experienced, and influenced by a wide range of factors, including individual characteristics and expectations, power dynamics, and setting (Evans, 2016, Fleischer et al., 2009), measurement of the quality of interactions is a challenge.

Patient-based assessments of care are clearly important, but are not routinely included in evaluations of interventions to improve care (Blomberg et al., 2016), particularly for older patient populations, who may be more vulnerable to poor care experiences (Goldberg and Harwood, 2013). Many of the patient-based measures currently available rely on patient self-completion, requiring skills such as literacy, comprehension, attention, functional ability to select and indicate the response that aligns with one's experience and, in relation to care evaluations, orientation to place (Goldberg and Harwood, 2013; van Baalen et al., 2010). These skills may deteriorate with age-related disease or with injury, risking that some people's views and experiences are not represented when data are gathered. Structured observation-based methods of patient experiences of care offer a promising and potentially more inclusive alternative to survey-based methods but have often been developed for practice development purposes and lack strong evidence to support their use as a research instrument (Goldberg and Harwood, 2013). One observation-based measure, the Quality of Interactions Schedule (QuIS), was developed for service evaluation use in long term care settings (Dean et al., 1993a), and has been refined but not fully validated for use in acute care (McLean et al, 2017). Its relatively simple structure of five mutually exclusive categories supports the selection of QuIS for research purposes, as observer training is less demanding and resulting data are more straightforward to analyse and communicate when compared to other methods such as dementia care mapping (Brooker, 1995, Williams & Rees, 1997).

Also, compared to other instruments, QuIS has stronger psychometric properties. QuIS has been shown to have acceptable levels of inter-rater reliability and sensitivity to service change, which support its choice as an outcome measure (Bridges et al., 2018; Brooker, 1995; Dean et al., 1993a; Dean et al., 1993b; Fritsch et al., 2009; Gould et al., 2018; McLean et al., 2017; Mesa Eguiagaray et al., 2016). McLean et al. reported an association between QuIS ratings and direct patient ratings of

interactions gathered from adult general hospital patients (McLean et al., 2017). Positive QuIS ratings have been associated with positive affect of people in long-term care settings (Dean et al., 1993a; Dean et al., 1993b; Fauth et al., 2020; Resnick et al, 2021) and with higher psychological well-being of people living with dementia in acute care settings (Lee et al., 2020).

The relevance and representativeness of assessment instruments (such as QuIS) and their use are potentially unstable, as the underlying construct (e.g. quality of interaction) may shift over time and between specific contexts (Haynes et al., 1995). So, for instance, shifts in the way that care is organised or shifts in the physical environment that may unintentionally impede communication may have consequences for how QUIS should be used and how the resulting data are interpreted. It is good practice, therefore, to intermittently re-examine content validity, defined as the extent to which the elements of a measurement instrument correspond with the targeted construct and assessment purpose (Brod et al., 2009, Haynes et al., 1995). Content validity is usually established through qualitative interview methods involving experts and/or patients, but interview methods may exclude the views of some patients (similar to the ways that survey methods can exclude as outlined above) (Brod et al., 2009). Observation methods, while less frequently deployed, may offer a useful alternative to understanding content validity of a patient-based measure such as QuIS (Brod et al., 2009).

The research reported here uses observation methods to investigate the content validity of QuIS, in order to assess the extent to which it can support the identification of negative staff-patient interactions in acute care.

Methods

Design

This paper presents a content analysis of observational fieldnotes which were collected to explain negative QuIS ratings of staff-patient interactions in an acute care setting. The fieldnotes were collected as part of a feasibility study of an intervention to support the delivery of compassionate care among hospital nursing teams (Bridges et al., 2018). The feasibility assessment included analysis of the potential of QuIS as a candidate outcome measure in a future definitive evaluation of the intervention. The focus on understanding negative interactions was consistent with their use as the primary outcome measure in the study.

Instrument

The QuIS is an observation-based tool used to rate the quality of staff-patient interactions within a health care context (Dean et al. 1993a; McLean et al 2017). Guidance for use of the tool in an acute

setting has been developed by McLean et al (2017). Interactions are rated on a five-category scale: 'positive social', 'positive care', 'neutral', 'negative protective' or 'negative restrictive', as illustrated in table 1. Negative aspects of care are defined as rude, controlling or ignoring, with the distinction between 'negative restrictive' and 'negative protective' being that the latter serves to provide care or protect the service user. (McLean et al 2017).

Table 1: **Quality of Interactions Schedule (QuIS) categories**

QuIS Category	**QuIS Category Definitions**	
	Dean et al. (1993a)	Additional acute care guidance (developed as reported in McLean et al. 2017)
Positive Social	Interaction principally involving 'good, constructive, beneficial' conversation and companionship	Interactions, which may be expected to make the service user feel valued, cared about or respected as a person. This is achieved through: • Polite, friendly and respectful interactions in which any element is: Casual / informal and relating to 'everyday' social topics (e.g. family; sport; weather; TV programmes) or • Responding to concerns / interests / topics introduced by the service user
Positive Care	Interactions during the appropriate delivery of physical care.	Interactions, which may be expected to make the service user feel safe, secure, cared for or informed as a patient. This is achieved through polite, professional, respectful or good humoured interactions in which the topic is largely determined by staff and restricted to issues of care delivery (E.g. "your discharge"; "your wash"; "your medication"; "your surgery").
Neutral	Brief, indifferent interactions not meeting the definitions of the other categories.	Interactions which would not be expected to impact on the feelings of the service user, which they would be indifferent to or which they may barely notice. Interactions with no positive or negative aspects
Negative Protective	Providing care, keeping safe or removing from danger, but in a restrictive manner, without explanation or reassurance: in a way, which disregards dignity or fails to demonstrate respect for the individual.	Interactions that may be expected to make the service user feel rushed, misunderstood, frustrated or poorly informed as a patient. Such interactions fail to fully maintain dignity or demonstrate respect due to the focus of staff on doing their 'work'. Staff may appear rushed or task orientated.
Negative Restrictive	Interactions that oppose or resist people's freedom of action without good reason, or which ignore them as a person.	Interactions which may be expected to leave the service user feeling ignored, devalued or humiliated as a person. Such interactions may be rude, abusive or controlling and pay no regard to the perspective of the patient. Patient's expressed needs / preferences are ignored or denied and staff may be authoritative, controlling, rude or angry.

Adapted from Barker et al. (Barker et al., 2016) with permission from authors.

The patient perspective is prioritised in ratings, focussing on how each interaction appears to be perceived and experienced by the patient, regardless of staff intent or of difficulties staff may have in delivering person-centred care because, for instance, of short staffing. Interactions are defined as any speech or action between patients and staff of which the patient was aware. An interaction is judged to start or end when patients or staff demonstrably direct attention towards or away from one another through speech or non-verbal communication, or by staff entering/leaving the immediate proximity of the patient, delineated by the curtains around the bed.

The platform used for data collection is the Quality of Interactions tool (QI Tool), a tablet-based interface that enables users to enter data in real-time for subsequent wireless upload to an encrypted central database. Patient age, gender and evidence of cognitive impairment and staff type are also collected.

Setting and sample

Data were gathered from four acute medical and surgical inpatient wards in two National Health Service hospitals in England. Wards were selected as having high proportions of older patients. People were eligible to take part in the study if they had capacity to consent to the study or a consultee could be contacted to advise on their inclusion. They were recruited to the study, including an assessment of their capacity to decide to take part in the study, by the member of the team assigned to collect data in the planned observation session (referred to hereafter as 'observers'). If, in initial conversation with an individual, the observer was unsure of capacity to consent they undertook further assessment. This involved using further conversation about the study to inform an assessment of the individual's ability to understand and retain the information given, to use that information, and to communicate their decision. Where capacity was assessed to be lacking, effort was made to contact a consultee for advice. We excluded people who were unconscious or where there were clinical concerns (such as being critically ill, in receipt of palliative care, or high infection risk).

An index patient for the observations was determined by random selection from all eligible patients on the ward on the day of observation. Index patients were informed about the planned observations and, if they agreed the observation could proceed, were verbally consented to the study. If the index patient declined to take part, another index patient was randomly selected and approached as before. Once the index patient was consented, up to two other eligible patients who would be in the observer's field of view during the observation were also approached for consent. It

was possible for recruited patients to be involved in up to three observation sessions in the study provided they consented each time.

Data collection

Data were collected by a team of trained observers (n=18), who had attended a half day classroom-based course, followed by four hours of field-based practical training. Observers included research staff, postgraduate students and hospital staff. Hospital staff in the role of observer did not undertake observations in the departments where their job was located. Training followed the QuIS protocol developed by McLean et al. (2017) and included patient recruitment and consent, mental capacity assessment, how to identify an interaction, its beginning and its end, and how to rate the interaction quality. Field-based training included establishing high reliability in identifying and rating interactions between trainee and an experienced observer.

Data collection was at two key time points for the intervention study, taking place in September 2017 (baseline) and November 2018 (follow-up). Each ward included in the study had a daily two-hour observation session scheduled for 10 continuous days (including weekends), with the timing of each session randomly selected to start between 0800 and 1800 hours. When a planned session could not go ahead, for instance because of observer sickness, an alternative session took place on the next available slot on the same day of the week and at the same time as originally planned.

During each two-hour session, observers aimed to rate all interactions between recruited patients and staff (of any discipline) using QuIS. Observations took place in single rooms or 4 to 6-bedded bays, where patients could be observed in or near to their bedspace. Observers located themselves in a discreet location near enough to the patient to be able to see and hear interactions. Patients were not followed if they left the ward, and no observations took place in bathrooms or toilets. If bed curtains were drawn, observers stayed within hearing distance and continued to make a rating if sufficient information was available to inform this.

In addition to recording their QuIS rating of an interaction, observers were asked to record brief free-text comments to explain their use of the 'negative protective' or 'negative restrictive' ratings. Again, these comments focused on what the observer observed from the patient's perspective that informed the allocation of a negative rating.

Ethical issues

Ethical approval for the research was granted by the National Social Care Research Ethics Committee 14/IEC08/1018. Verbal consent was obtained from patients, or advice sought from a patient's consultee, prior to each observation. Other patients, staff and visitors to the ward were informed of

the study verbally and with posters placed in and around the ward and other staff areas, and staff were informed at staff meetings and via email. Staff were given the opportunity to decline to take part in observations. Data were confidential, although participants were advised that any dangerous or unsafe practice would be reported to managers, in line with the hospital's procedures for safeguarding.

Analysis

We calculated the mean and median rate of interactions per patient per hour of observation. The frequency and proportion of interactions rated for each of the five categories were analysed, including a further analysis for total negative ratings (sum of negative protective and negative restrictive ratings). This analysis was conducted for each assessment period and summed to produce overall proportions.

The observers' reasons given for negatively rated interactions were extracted from the main data set for content analysis. Content analysis was used with the purpose of distilling the text into fewer content-related categories so that the type and frequency of observed staff behaviours could be described (Elo and Kyngäs, 2008). Each interaction record was treated as a separate unit of analysis. Some responses were excluded at this stage because the wording was unclear or insufficient information was provided to understand the meaning of the record. Data were printed out and read through several times to enable familiarisation. This was followed by inductive coding of the manifest content by open coding, creating categories and abstraction (Elo and Kyngäs, 2008). To indicate frequency of incidents, a count was made against the primary category applied for each interaction record. The categories derived from the data were then considered against the acute care guidance for QuIS categories developed by McLean et al. (2017), based on the original Dean et al. (1993a) guidance. Analysis was performed by two research team members (AY and JB) supplemented by discussions with JF.

Results

Frequency of interactions and ratings

In total, there were 163 approaches to patients and 91% (n=149) of these resulted in a patient being recruited. This resulted in 107 patients recruited overall (as some patients were recruited and observed more than once), including seven patients assessed as not having capacity to consent and for whom their personal consultee had advised inclusion in the research. Ratings were gathered on a total of 1598 interactions, 908 at baseline and 690 at follow-up. As illustrated in Table 2, negative

interactions made up 11% (n=173) of all staff-patient interactions observed on wards over the two time-points, and there was little difference in this proportion between time periods.

Table 2: **Quality of staff-patient interactions over time**

Frequency (proportion)	**T1 September 2017**	**T2 Sept 2018 to Nov 2018**	**Total**
Positive social	195 (21%)	162 (23%)	357 22%
Positive care	526 (58%)	390 (57%)	916 (57%)
Neutral	91 (10%)	61 (9%)	152 (10%)
Negative protective	65 (7%)	19 (3%)	84 (5%)
Negative restrictive	31 (3%)	58 (8%)	89 (6%)
Total	908	690	1598
Negative protective + negative restrictive	96 (11%)	77 (11%)	173 (11%)

Of the 173 negative interactions recorded, 97 (56%) ratings were accompanied by observer comments on the reason for the rating. Unclear responses (n=9) were excluded from further analysis, leaving records of 88 interactions included in the content analysis. Observer comments were recorded and included in the content analysis for 23 negative protective and 65 negative restrictive ratings.

Across these 88 interactions, 73% (n=64) were with female patients and 27% (n=24) were with male patients. Patient ages ranged from 55 to 95 years, with a mean age of 82 years. Twenty-eight percent of interactions (n=25) involved a patient with cognitive impairment. Most interactions (88%, n=77) involved one member of staff, ten interactions (11%) involved two members of staff and one interaction (1%) involved three members of staff. The most frequently observed staff type was registered nurses (41%, n=36), followed by health care assistants (36%, n=32). Twenty nine interactions (33%) involved student nurses, doctors, allied health professionals or other staff.

Thematic content analysis

Table 3 shows an overview of the main interaction types and associated frequency of interactions derived from the content analysis. Five interaction types were identified and described here: Patient calls for help, call not acknowledged; Staff focused on task and appear to ignore/not hear patient; Patient-led interactions appear dismissed or ignored; Patient prevented from doing something without explanation; Staff interact with each other or talk to relatives, not including patient. Where quotes are shared below, they include the patient ID and whether the interaction was rated as negative protective (NP) or negative restrictive (NR).

Table 3: **Frequency of interaction types associated with negative QuIS ratings.**

Category	**Negative restrictive rating**	**Negative protective rating**	**Total number of interactions**
Staff focused on task and appear to ignore/not hear patient	20	8	28
Patient calls for help, call not acknowledged	23	4	27
Patient-led interactions appear dismissed or ignored	16	2	18
Staff interact with each other or talk to relatives, not including patients	8	2	10
Patient prevented from doing something without explanation	2	7	9
Total	**69**	**23**	**92***

*Four interactions rated as negative restrictive were mapped to two interaction types, so column totals 92 not 88.

Staff focused on task and appear to ignore/not hear patient

The most commonly occurring issue (n=28) was staff focusing on the task in hand, to the extent that the patient appeared ignored or was not heard.

"Blood cultures taken. Person informed previously but no interaction during procedure with exception at the end to say "all done"." (ID: 1621; NP)

In these interactions, staff would be in the patient's bed space focused on medication administration, checking on charts or doing paperwork, but no acknowledgement, greeting or explanation was given to the patient, even if the patient was demonstrating verbally or non-verbally that they were expecting an interaction. This seemed a particular issue on wards with less space, as

encroachment into individual bed spaces was very likely, raising patient expectations of an interaction.

"Meds trolley in bed space. Patient expecting interaction but no one said anything to him or gave any non-verbal indication that he was there". (ID:1613; NR)

These one-sided interactions were the hallmark of responses grouped in this interaction type; patients trying to carry out a conversation with staff members, or engage them, while the staff member was engaged in another task and did not respond. Interactions in this interaction type were predominantly rated as negative restrictive (NP=8, NR=20).

Patient calls for help, call not acknowledged

The second most commonly occurring issue recorded (n=27) was a lack of response by staff to the patient calling for help, either verbally or with a call bell. Eight of these incidents related to unanswered call bells, and the rest were patients calling out to get staff attention from within the bay, or from the wider ward. Observers were trained to rate unanswered call bells as a negative interaction if the call went unanswered for a period of time determined as too long (taking into account the actual length of time but also the urgency of patient need).

"unanswered call bell (no answer in 5 minutes)" (ID: 1385; NR)

"no one answered to the call and patient fell asleep" (ID: 1487; NR)

Data also show patients calling out with no response from staff. With the exception of the incident below, patients appeared to be calling out for assistance:

"Patient calling thank you to staff walking past, no response" (ID: 166; NR)

Several patients were observed both using the call bell and calling out, again with no response from staff or, in this case, staff responded but not in the way that the patient needed:

"Bell call. Patient used bell and was calling for help. Different staff around but did not hear what she was saying. They acknowledged her but not what she was saying." (ID: 1608; NR)

Interactions in this interaction type were predominantly rated as negative restrictive, but a small number were rated as negative protective (Negative protective (NP)=4, negative restrictive (NR)=23). In one interaction rated as negative protective, the nurse acknowledged the call for help and said she would return, which may explain the rating. The other three interactions rated as negative protective appear to meet the criteria for a negative restrictive rating, but there is no content that explains why a negative restrictive rating was not assigned.

Patient-led interactions appear dismissed or ignored

Data in this interaction type include incidents of patient requests being ignored or utterances spoken over in conversations, or staff members appearing dismissive. This interaction type is closely linked to the previous interaction types, with the interactions observed here patient-initiated during an existing interaction with staff, and not always linked to a care need.

"Patient made a request, staff member dismissive, patient said she wasted her breath saying that" (ID:1674; NR)

"asked for an ice cream but no answer to question" (ID:1676; NR)

Data in this interaction type were also characterised by patients making a request and staff dismissing it due to lack of time, making the patient's request seem unimportant or unwarranted:

"Patient wanted to walk. [Health care assistant] joked to 2 patients I don't want you both going for a walk at the same time." (ID:1656; NP)

Interactions here were predominantly rated as negative restrictive (NR=16, NP=2).

These first three interaction types have in common that the patient was ignored or dismissed in the interaction. Seventy interactions (80%) included one or more of these interaction types.

Staff interact with each other or talk to relatives, not including patient

This section considers interactions involving staff interacting with someone other than the patient while in the patient's bed space. Interacting with others attracted a negative rating if the patient was not involved in the interaction.

"asked visitor to choose meals for next day not patient" (ID:1675; NR)

"Patient was already talking to member of staff, another member of staff entered room to talk to the RN already there and ignored the patient". (ID:1661; NR)

Other instances of staff interacting without inclusion of patient were explicitly linked to care, and some were linked to staff bedside meetings such as medical ward rounds.

"Communication from consultant giving staff nurse instructions regarding medical plan. Person not included in this process" (ID:1621; NR)

Interactions in this interaction type were split between negative protective and negative restrictive ratings (NR=8, NP=2).

Patient prevented from doing something without explanation

The data in this interaction type focused on instances in which the patient was being prevented from doing something for their own safety, but without staff making sure that the patient understood why they could not do what they wanted.

"Patient wanted to walk but floor was wet, staff member shut door and stood in front of it to prevent patient leaving. Patient did not understand why". (ID:1672; NP)

"Patient leant over to try and take something off another patient's lunch nurse loudly said no no no stop that and prevented patient from reaching". (ID:1672; NR)

Interactions in this category were rated mostly as negative protective (NP=7, NR=2).

Discussion

This study investigates the content validity of QuIS through assessing how it supports the identification of negative staff-patient interactions in acute care. The analysis aimed to understand the type of staff-patient interactions in acute hospital settings that were rated as negative protective or negative restrictive by observers using QuIS. Findings showed that such interactions tended to be associated with patients being ignored, or with patients being prevented from doing something without explanation, or with staff interacting with others while the patient was present but not included.

While these issues in practice are well documented in research conducted in acute and other settings (for instance, Bridges et al. 2019a, Featherstone et al. 2019), they have not been previously analysed in relation to an associated measurement instrument such as QuIS. The findings highlight the extent to which the use of QuIS is a valid means of measuring interaction quality and this research is the first investigation of the content validity of QuIS in an acute setting.

The interaction type developed through our analysis of "patients calling for help but not acknowledged" clearly maps onto the guidance for rating interactions as negative restrictive quality (Table 1). Negative restrictive interactions are applied to interactions in which the patient is ignored as a person and the acute care guidance specifies that such interactions "may be expected to leave the service user feeling ignored, devalued or humiliated…Patient's expressed needs/preferences are ignored or denied…" (Barker et al., 2016). All but a few of these interactions were rated as negative restrictive which is consistent with the rating guidance. Three interactions seemed to be erroneously labelled as negative protective. This may highlight a training issue for observers but may also be a lack of data on that interaction to inform understanding of why a negative restrictive rating was not given.

The interaction type of “Staff focused on the task in hand and appearing to ignore/not hear the patient” also corresponds with the QuIS negative restrictive category but these interactions may also be rated negative protective. The rating guidance indicates that negative protective interactions “fail to fully maintain dignity or demonstrate respect due to the focus of staff on doing their work”. Staff focusing on their work is at the heart of this interaction type in our analysis, and so may indicate that a negative protective rating is merited, but if the patient is left feeling “ignored, devalued or humiliated as a person”, this would merit a negative restrictive rating. This distinction in how the patient is left feeling as a result of the interaction follows the McLean et al. (2017) guidance, which states that patient perspective should be prioritised in assigning the rating and may explain why some interactions of this type were rated negative restrictive and some negative protective.

The interaction type of “Patient-led interactions appear dismissed or ignored” attracted mainly negative restrictive ratings. Interactions in this category mainly involved patients making a request for something that was then denied. If the denial was legitimate (for instance, meeting the patient’s request would put them at risk in some way), but the reasoning was not well explained to the patient, and they were left feeling “rushed, misunderstood, frustrated or poorly informed” (from the QuIS rating guidance), then negative protective would be an appropriate rating, and this rating was used in two cases. If the patient is left feeling ignored as a person, then a negative restrictive rating would apply, and this was the main rating used in this interaction type. As with the earlier interaction types, the content of interactions of this type corresponds with the QuIS ratings guidance.

The interaction type “Patient prevented from doing something without explanation” relates closely to the previous interaction type and similarly corresponds with the guidance for both negative protective and negative restrictive interactions, with the rating arbitration decided by how the patient is perceived to be left feeling. The same reasoning as in the previous interaction type may explain why most of these interactions were rated as negative protective, while two were rated as negative restrictive. It may be that more detailed data would enable insight into the impact of staff actions on patients in this interaction type.

“Staff interact with each other or talk to relatives, not including patients” corresponds with QuIS ratings guidance including “focus on staff doing their work” (negative protective) or “pay no regard to the perspective of the patient” (negative restrictive). Interactions of this type attracted a mixture of negative protective and negative restrictive ratings, the differences between the ratings likely to be explained by difference in elements of context.

We have illustrated a clear association between the content of a variety of interaction types and the QuIS categories for negative protective and negative restrictive ratings. The content of negative interactions appeared largely consistent with QuIS categories in the original Dean et al. (1993a) categorisation and with the acute care iteration (McLean et al., 2017), indicating that the elements of QuIS and its use in this way are appropriate to the measurement of quality of interaction in acute settings. The findings reported in this study illuminate what it is that makes interactions negative, offering valuable insight into the meaning of QuIS ratings when used in evaluation research in acute care settings. Work of this kind has not been previously published in relation to the Quality of Interactions Schedule.

Strengths and limitations

The importance of these findings lies in adding to the understanding of an outcome measure that holds promise in measurement of interaction quality in health care settings. Our method of making observational fieldnotes alongside the rating of interactions may also be of value when QuIS is used as a practice development tool, providing context and meaning to ratings that are likely to enhance reflective learning by staff.

Our use of observational fieldnotes alongside a negative QuIS rating in an assessment of the validity of QuIS helps to overcome the exclusion of certain types of patient groups from research. However, problems remain with this type of proxy measure of the patient perspective, indicating the importance of validation work that can include direct patient perspectives where possible. For instance, a recent study by Lee et al. (2020) has successfully included people living with a dementia in validating QuIS ratings in acute care, although some patients with dementia in the study found responding to researcher questions difficult.

Inter-rater reliability for QuIS ratings has been shown to be moderate to substantial (McLean et al., 2017), indicating there may be some differences in the way individual observers distinguished between negative protective and negative restrictive ratings, and our work helps to illuminate this. However, further data that illustrate the context of particular ratings decisions may be merited here. It is also worth noting that others, perhaps because of difficulties experienced in other research in distinguishing between the two ratings, have combined the two ratings into one negative rating, in a version of the instrument known as SQUIS (Shortened Quality of Interactions Schedule) (Adamson et al., 2012, Nicholson et al., 2010).

This was a relatively small-scale study involving only two English hospitals. It may be that data gathered from a wider range of acute care settings would reveal a wider variety of interaction

content that may or may not correspond with QuIS categories. It is also possible that awareness of being observed prompted staff to change their behaviour, although our findings of negative interactions indicate that, even if the observations motivated staff attempts to "perform" best practice, they were not entirely successful.

Conclusions

This study investigated how data gathered through observations of staff-patient interactions in an acute care setting corresponded with interaction quality as defined by QuIS categories, with a focus on negative interactions. The findings support the validity of QuIS data for assessing negative interactions in acute care settings and offer valuable understandings of the meaning of QuIS ratings when used in evaluation research in acute care settings. Extending the research to a wider range of settings would be a useful way to develop further insight.

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