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Understanding the enablers and barriers to implementing a patient-led escalation system: a qualitative study

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ABSTRACT

Background The management of acute deterioration following surgery remains highly variable. Patients and families can play an important role in identifying early signs of deterioration but effective contribution to escalation of care can be practically difficult to achieve. This paper reports the enablers and barriers to the implementation of patient-led escalation systems found during a process evaluation of a quality improvement programme Rescue for Emergency Surgery Patients Observed to uNdergo acute Deterioration (RESPOND).

Methods The research used ethnographic methods, including over 100 hours of observations on surgical units in three English hospitals in order to understand the everyday context of care. Observations focused on the coordination of activities such as handovers and how rescue featured as part of this. We also conducted 27 interviews with a range of clinical and managerial staff and patients. We employed a thematic analysis approach, combined with a theoretically focused implementation coding framework, based on Normalisation Process Theory.

Results We found that organisational infrastructural support in the form of a leadership support and clinical care outreach teams with capacity were enablers in implementing the patient-led escalation system. Barriers to implementation included making changes to professional practice without discussing the value and legitimacy of operationalising patient concerns, and ensuring equity of use. We found that organisational work is needed to overcome patient fears about disrupting social and cultural norms.

Conclusions This paper reveals the need for infrastructural support to facilitate the implementation of a patient-led escalation system, and leadership support to normalise the everyday process of involving patients and families in escalation. This type of system may not achieve its goals without properly understanding and addressing the concerns of both nurses and patients.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Despite a small but growing number of patient-led escalation systems in use internationally over the last few years, we know little about what the barriers and enablers are in implementing such a system or what the impact might be on patients, relatives or staff.

WHAT THIS STUDY ADDS

⇒ This ethnographic study illustrates factors that helped ensure that patient-led escalation systems can operate as intended. Without organisational infrastructure and education to support cultural change, the benefits may not be realised.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Our study provides important learning for the implementation of Martha's Rule in the UK (a policy meant to allow patients, families and advocates access to 24/7 review from a critical care outreach team). Successful implementation is likely to require infrastructural support, efforts to educate patients and staff and cultural change around the norms of patients and families speaking up about concerns.

BACKGROUND

Patient involvement in patient safety

There is a well-established body of literature on patient involvement in patient safety at the point of care across different areas of healthcare, including primary care[1] and in-hospital maternity care,[2] infection prevention and control[3] and in-hospital processes such as ward rounds[4] and handovers.[5] This involvement can include error reporting, monitoring and speaking up about their care. Indeed, the National Health Service (NHS) in England has a framework in place to involve patients both in their own safety and in safety governance.[6] The reported benefits of patient involvement in safety include early identification of potential threats, including missed diagnosis and safety errors,[7 8] and increased patient satisfaction with care.[9] However, research has also shown numerous challenges to patient involvement most notably in power relations leading to deference to medical authority,[10] differences in health condition and literacy and in age and status.[11] We still have some way to go to reconceptualise patient and family contributions as a source of resilience in healthcare and to build different forms of involvement into systems to 'scaffold the quality and safety' of patient care.[12]

Patient involvement in escalation of care

Research studies have explored the involvement of patients and their relatives in spotting deterioration and escalating care,[13–17] but there is limited empirical evidence of clinical patient benefit to date. Research has found that when patients have raised concerns, their views are often ignored,[18] or given less credence than healthcare professionals'.[19] Patients' questions may be greeted with suspicion by staff,[20] or contribute to perceptions that patients are 'difficult'.[21] As a result, patients may fear the consequences of speaking up.[10] Fear of damaging their relationship with staff also risks threatening the trusting relationship.[22] By speaking up about concerns, patients risk becoming more vulnerable because of their dependence on others to care for them.

Rapid response systems (RRS) provide track and trigger criteria and established response processes so that either critical care outreach teams (CCOT) or medical emergency teams can be activated by ward teams to enable response for deteriorating patients.[23] Patient-led escalation systems enable patients and family members to alert critical care outreach or medical emergency teams directly. These systems are required by regulators in three Australian states[24] and in parts of the USA,[25] and in the UK the 'Call for Concern' model championed by the Royal Berkshire Hospital has been implemented in some NHS trusts.[26]

Targeted patient education strategies to help patients detect changes in their conditions on medical and surgical wards have been found to 'significantly improve patients' self-efficacy to recognise and report deteriorating conditions'.[27] In terms of implementation evidence regarding patient-led escalation systems, Dwyer and colleagues evaluated activations of Ryan's Rule within one hospital in Australia using chart review and found that the system was valued by users but staff were hesitant to embrace the system.[28] The 'Call for Concern' model was evaluated by Odell and colleagues who found that very few calls were placed within a 6-month period and despite positive views from patients and families, there were staff concerns about patients' willingness to use the system.[26] A recent review of paediatric family-led escalation systems found that parents valued the system and reported positive experiences. However, the authors noted failure to offer multilingual information which made it difficult for non-English speakers to use the system. They also note that educating families about activating an escalation system when in the middle of an already stressful period is challenging and also impacts on staff workload at the time of admission.[16 29]

However, there are still significant gaps in the evidence base, particularly regarding the contextual factors that influence adoption, implementation and normalisation of patient-led escalation systems. Research has largely been led from countries such as the USA which have established patient and family-led escalation systems; we still have much to learn about contextual influences within UK practice, particularly as these are likely to differ across settings (eg, adult vs paediatric care). This paper reports the findings of a qualitative process evaluation of the implementation of a patient-led care escalation system as part of the pilot stage of the Rescue for Emergency Surgery Patients Observed to uNdergo acute Deterioration (RESPOND) study,[30] a quality improvement (QI) programme to improve rescue for emergency surgery patients. Our research question was 'what are the enablers and barriers which affect the implementation of a patient-led escalation system at patient, professional and organisational level?' Our ethnographic findings have both national and international relevance, given the introduction of Martha's Rule in the NHS from April 2024,[31] which stipulates that all patients, carers, families and advocates must have access to a round-the-clock rapid review from a separate care team if they have concerns about a patient, and ongoing international efforts to systematise patient and family contributions to escalation of care in hospital settings.

Intervention development description

RESPOND is a QI programme based on Human Factors (HF) approaches to improving escalation of care following emergency abdominal surgery. The programme consists of four intervention strands. One of these is a patient-led escalation system entitled 'Early 3S' (See it Early, Speak up Early and Save lives Early), the design of which was informed by experiential data from patients who had experienced deterioration in their condition[18] (see online supplemental appendix 1). In line with the Medical Research Council framework for complex interventions, the development phase involved codevelopment of an HF-informed system,[32] via patient and staff workshops. The proposed response pathway developed from proposals for a buzzer system that alerted staff on the wards to a response triggered by the patient's own mobile to

Table 1 Early 3S intervention package, Template for Intervention Descrition and Replication (TIDieR) description

Intervention design	**Coproduction workshops** Healthcare professionals were recruited from acute surgical units of 3 National Health Service trusts across England (n=24). One focus group and 4 workshops were held with healthcare professionals between May 2021 and February 2022. Patients or relatives of patients with past experience of in-hospital deterioration were recruited (n=10). The research team held 3 focus groups with the patients/relatives between May 2021 and February 2022.			
Intervention components	**Patient and staff education**	**Engagement**	**Response pathway**	**Audit and feedback**
Materials and resources	**Patient information leaflet** Leaflets were handed to each newly admitted patient which described the three stages of Early 3S, the objective of the programme, the phone number to start an escalation and how the process of escalation would occur.	**Funded champion** Each of the three sites began on 1 June 2022 with a funded champion from each hospital to promote the programme.	**Telephone (in 2 sites)** Mobile phones for the RESPOND person to carry at all times. The phones would receive the calls from patients directly by the printed phone number displayed on the patient leaflets. The third site had their critical care outreach team (CCOT) as the RESPOND person.	**Staff surveys (n=85)** Staff surveys were conducted in person weekly from June 2022 until February 2023 and recorded anonymously on REDCap. The staff surveys consisted of three main Likert scale questions and one 'Open comments' question.
	Posters Posters were clearly displayed at nursing stations and patients' rooms which described the three stages of Early 3S and what phone number should be called to start an escalation.		**Designated RESPOND person** This aspect was considered crucial and required multiple discussions. The finally agreed attributes of such individual termed 'Respond Person' included having background medical knowledge to aid in decision-making and responses to patient's clinical need; not be a part of patient's primary treating team (doctor or nurse) to provide an unbiased and new perspective to patient care; have a senior role and coordinating skills to appropriately coordinate care between the primary treating team and the patient. In one of the trusts, there was an established CCOT that performed the role of a RESPOND person.	**Patient surveys (n=186)** Patient surveys were conducted in person weekly from June 2022 until March 2023 and recorded anonymously on REDCap. The patient surveys consisted of three main Likert scale questions and one 'Open comments' question.
	Staff Email reminders were sent to staff with an information leaflet about the system.			**RESPOND person surveys** (n=12) RESPOND Person surveys were conducted in person weekly from June 2022 until December 2022 and recorded anonymously on REDCap. The RESPOND person surveys consisted of eight questions.
Training	Education of general ward staff about the intervention and its components was conducted through face-to-face meetings on the ward. Training materials included champions playbook, PowerPoint presentations and printed pamphlets.	The champions had attended a group Rescue for Emergency Surgical Patients Observed to uNdergo acute Deterioration (RESPOND) Champion Training event as well as individualised Early 3S-specific training.	A dedicated 1-hour education session was provided by the research team to the identified RESPOND persons with role-play activities and simulations used to enhance understanding of role and responsibilities.	
Tailoring	The first version of the patient leaflet was a three-page heavily detailed brochure started on 1 June 2022. After receiving feedback that the leaflet contained too much text, the updated second version on 9 September 2022 was a double-sided handout with a clear, concise instruction for calling for an escalation.	Engagement with the funded champions diminished and by 8 July 2022 the champion-lead approach was abandoned and replaced with direct promotion with ward matrons.		

Early 3S, See it Early, Speak up Early and Save lives Early.

reach an external 'RESPOND' person, that is, a CCOT member. However, given that at the time of the pilot study, a number of UK hospitals were without a CCOT, a ward-based nurse in charge responder was proposed as an alternative work-around if required (see table 1 for a Template for Intervention Description and Replication (TIDieR checklist[33]). Other evidence-based components to support implementation were developed, including strategies for patient and staff education,[34] engagement[35] and audit and feedback.[36]

Table 2 Site characteristics

Site	Time period	Response system component	Designated Rescue of Emergency Surgery Patients Observed to uNdergo acute Deterioration (RESPOND) person	Calls received and type
Site 1 Rural district general hospital. Two wards involved. CCOT.	October 2022 to June 2023	Information leaflets and ward posters providing number of *local CCOT* for patient/relative to call.	*CCOT team member not on ward.*	7 calls, mostly concerned about communication, pain relief, discharge planning and a patient who required frequent suctioning.
Site 2 Urban district general hospital. 1 ward involved. CCOT present but not involved.	November 2022 to June 2023	Information leaflets and ward posters providing a *telephone number* for patient/relative to call.	Nurse in charge *on ward.*	41 (mostly missed calls). Phone not used as intended. Used as backup to ward phone for relatives to call inquiring after patient.
Site 3 Urban large teaching hospital. 1 ward involved. MET team (no CCOT).	June to July 2022	Information leaflets and ward posters providing a *telephone number* for patient/relative to call.	Nurse in charge *on ward.*	*0 discontinued.*

CCOT, critical care outreach team; MET, medical emergency team.

METHODS AND ANALYSIS

Three hospitals in the south of England agreed to take part in the RESPOND pilot study, which was designed to test the feasibility of the intervention strands within a surgical care setting so that any refinements needed could be made prior to roll-out of RESPOND in a stepped wedge trial.[30] The process evaluation used a qualitative design; specifically ethnographic fieldwork in surgical units in these three hospitals between November 2022 and June 2023 (for more details about the sites see table 2).

Ethnographic observations and interviews

Ethnographic observations were conducted in the preparatory codesign workshops and staff training stages in order to understand how the patient-led system was codeveloped. In the hospital, observations consisted of shadowing junior doctors and nurses and spending time on the main surgical wards, observing admissions, ward and board rounds, safety huddles, handovers and the general focus of work occurring in these wards for between 3 and 5 days per site. This enabled a better understanding of the context for implementing the intervention and the day-to-day work practices that it would fit within (eg, how information about the patient-led system was shared with patients on admission). Fieldwork consisted of over 100 hours of observations and informal conversations with over 40 members of staff including healthcare assistants, consultants and leads of CCOTs (where available). Posters informing staff of the researcher's presence were in place throughout the observation periods at each unit. We also collected relevant documentation including escalation policies and procedures in each site. Fieldnotes were written up into Word documents. Lastly, we conducted a total of 18 staff interviews (2 consultants, 3 registrars and 1 junior doctor and with a range of 12 nursing staff) and nine interviews with patients who had been admitted for emergency surgery during November 2022 to June 2023 to understand factors influencing implementation of the patient-led escalation system.

Recruitment and data collection

Staff participants were recruited to the study if they worked within, or had managerial oversight of the selected surgical units and written consent to an interview was obtained. Semi-structured interviews took place in person and over teams where appropriate, using a semi-structured topic guide (see online supplemental appendix 2). Each lasted between 30 and 60 min. Patients who had experienced a deterioration during their care (see table 3) were given an information sheet about the study by research nurses in all three sites and were asked for their agreement to be approached for an interview by an experienced qualitative researcher (ES) who then obtained consent from the patient to contact them once discharged. This enabled participants' time to recover and addressed participants' concern about whether their involvement would affect their ongoing care. Patients were only recruited from site 1 owing to the input of an active research nurse in this site.

A topic guide was developed to explore the views of patients about using the system and about their views on the experiences in hospital (see online supplemental appendix 3). The interviews took place over the telephone and lasted between 30 min and an hour.

Analysis

Interviews were transcribed verbatim and along with fieldnotes and documentation were imported into NVivo V.12 for analysis. Each transcript was read by ES and NM initially coded thematically and

Table 3 Patient characteristics

Patient	Admitting condition	Complication	Had heard of Early 3S	Had used Early 3S	Would use it
07	Septic gall bladder	Oxygen Saturation dropped following surgery	No	No	Yes
03	Bleeding	None	Yes	No	No
04	Pancreatitis	None	No	No	Yes, only for a relative
05	Incarcerated hernia	Blood pressure dropped—internal bleed	No	No	Yes
0201	Hysterectomy	Twisted bowel	No	No	No
0203	Blockage in intestine	Blood pressure dropped; heart rate increased	No	No	No
0204	Strangulated hernia	Septicaemia and Healthcare Acquired Infection (HAI)	No	No	No
0205	Abdominal pain	Infection following discharge	Yes	No	Yes
0106	Gall bladder	Bile leak	Yes	No	No

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inductively for factors affecting implementation,[37] and deductively using the Normalisation Process Theoretical (NPT) framework.[38] A coding frame in NVivo[39] was produced in discussion between ES and NM. We drew on NPT to sensitise the research to the thinking, enacting and organisational work involved in implementation; particularly how new or modified practices associated with implementation were influenced by structural and relational elements. This enabled us to develop three analytical themes across the dataset: organisational infrastructural support; enabling changes to professional practice; and operationalising patient concerns.

RESULTS

Details of the local tailoring of the patient-led escalation system are provided in table 2. In site 1, the Early 3S involved a CCOT, in site 2 the nurse in charge acted as the designated RESPOND person, while in site 3 the system was trialled with the nurse in charge as the designated RESPOND person but was discontinued after 2 months. There were very few calls to the Early 3S system in any of the three sites (see table 2). None of the patients we interviewed had used the Early 3S system. Supplementary quotations in each theme are provided in online supplemental appendix 4.

Organisational infrastructural support

Having an established CCOT in place offered a level of infrastructural support for implementation of patient-led escalation. Nurse acceptance as to the value of the CCOT for supporting managing patient deterioration on the wards acted as a contextual enabling factor.

> [The CCOT are] very present on the surgical floor […][patients] get the expert help they need, we get a bit of teaching, we get support and actually it's quite nice when you have the time to be with the outreach nurses, because you learn so much from how they're assessing their patients. (Senior nurse, site 1, INT 103)

Two of the sites had CCOTs in place but only one (site 1) had actively considered the introduction of a patient-led component; here the CCOT already had plans for a patient-led escalation system in development, and the RESPOND pilot helped provide impetus for its implementation. However, local needs and resourcing also shaped implementation plans. The CCOT was not involved at site 2 in the RESPOND pilot, as the CCOT comprised only a small team and members had been concerned about the number of calls they might receive.

The status of RESPOND as a research project (a pilot rather than organisationally mandated) created uncertainties about the sustainability of the interventions and contributed to a sense of ambivalence about the programme. In all sites, the intervention was designed to be ‘championed’ by key staff members. Support from champions diminished over time in sites 2 and 3 which had implications for supporting patient education about Early 3S to patients.

In sites 2 and 3, where no CCOT was involved and the nurse in charge was required to act as responder, interviews and observations revealed a lack of buy-in and ownership of this role.

> [RESPOND team member asked] who had got the RESPOND phone, and nobody knew where it was, so she rang it and there was no ringing, the ward staff didn't know where it was, nobody seemed even interested in where it was. And so [RESPOND team member] went to the other bay, and apparently the phone had been ringing in the drawer. (Fieldnotes, site 2, day 1)

Interviews and observations across all three sites showed the influence of staffing, workload and system-level changes introduced during and after COVID-19 on staff's capacity to take on the implementation work needed to embed a patient-led escalation system into the wider organisation of surgical clinical work. High turnover in staffing, increased demand for beds and limited energy for improvement work were reported by a number of interviewees.

> It's not so much the rationale behind RESPOND that's the problem. It's your actual practicalities and your resources…And the fact that you've had all this turbulence on your ward. (Senior nurse, site 3, INT 06)

Across all sites, senior leadership support provided an enabling influence for implementation; in site 1, the patient-led escalation system was supported by the CCOT and by senior leaders from the consultant body and ward nursing team. In site 2, in contrast, there was no visible senior clinical-level commitment for the intervention, and in site 3 the intervention was withdrawn due to lack of support from nursing leaders.

> There was not so much buy-in from the management on the ward. It's a very busy unit, it is very understaffed, we'd just come out of COVID, staff morale was very low, and that has been everybody's priority, is to raise staff morale. This was seen very much as an extra, and nice to be able to do but not part of day-to-day, which I think is kind of where we got stuck. (Senior nurse, site 3, INT 07)

Nursing leadership resistance to the intervention at this site linked to organisational and practice priorities as well as competing forms of *essential* safety work. Mandatory assessments (eg, falls, nutrition, pressure areas) with a specific focus on reducing the risk of avoidable harm were reported to take precedence, leaving little room for other non-mandatory forms of patient safety work.

Enabling changes to professional practice

The RESPOND pilot provided a preparatory general education programme for ward staff about the intervention, together with promotional material (see table 1). RESPOND staff visited the sites regularly to support implementation. However, high ward staff turnover and workloads made it challenging to move beyond limited communication about *operationalising* the patient-led escalation system to in-depth discussions about the value and legitimacy of systematising patients' voice into escalation processes within surgical work practice.

At site 1, there was general support for the principle of patient-led escalation as their model provided an alternative escalation pathway, *outside* the ward team. '*I think the 3S system is excellent, I think there is a role for patients feeling they have another point of access*' (Consultant, site 1, INT 05). However, in sites 2 and 3, nursing staff struggled to see the additional value that Early 3S could bring about. Their patient-led model relied on a responder from *within* the clinical ward team rather than a CCOT member; the latter importantly allowed for patients to escalate concerns *not acknowledged* by the patient's clinical teams. Staff at site 3 found it difficult to differentiate between what they already had in place (the allocation of a lighter workload for the nurse in charge in order to help manage patients who were deteriorating) and this intervention.

Across all of the sites, the relational and organisational work required by nurses and healthcare assistants to bring patient-led escalation into practice was noted, particularly in times of high workloads and fluctuations in staffing levels.

> It does take a lot of manpower […] you can look at it and think that's gonna take me five min, but patients have questions, and it's not just five min, and that is a lot of resource when you're trying to do that as part of your already overstretched job. […] trying to sit down with every patient and spend up to sometimes 20 to 30 min with patients going through a leaflet. In such a high turnover area, it, it felt like once you'd done it once in a day you didn't want to do it again. (Senior nurse, site 1, INT 03)

The excerpt above highlights how, even with a supportive CCOT in place at site 1, nurses raised concerns about the time it took to engage with Early 3S, both to fully understand it themselves and to explain it to patients. Lack of familiarity with the concept of patient-led escalation and calling criteria resulted in questions from patients, which in turn led to a lack of impetus from staff to promote the system, evident in this fieldnote.

> I noticed that there was a package of leaflets, RESPOND Early 3S leaflets, two of them left on top of the nurses' station, and that box did not move the entire time I was there, nobody took the leaflets out, nobody distributed them, nobody talked to the patients about them. (Site 2, fieldnotes, day 2)

Lack of patient activation of the system as intended across all sites reinforced the sense of its redundancy and raised issues about the role of activation data in sense making about 'appropriate' use of the system and the value of 'false' calls. Both nursing and medical staff expressed reservations about the value of Early 3S given the often fast trajectory of deterioration, which made it difficult for patients to contribute to the escalation process and the time-restricted nature of family member visits.

Some staff were worried that a patient-led escalation system could be perceived as exclusionary on the grounds that participation was likely to come from only certain patient groups. Patients and their families with higher levels of education were perceived as more likely to use the system, while patients from minority cultures or those with difficulty communicating in English were seen as less likely to use it. One nurse reported the ethical challenges of assessing which patients should get a leaflet, based on their ability to understand the materials. Fieldnotes revealed staff concerns as to whether the system was inclusive of all age groups and abilities.

> I talked to a CCOT team member, who was concerned that a lot of the deteriorating patients were elderly,

> wouldn't have a phone and wouldn't have necessarily the wherewithal to call a number to get help. (Fieldnotes, site 2, day 3)

There was general discomfort from nurses from all three sites that a patient-led escalation system represented a shift in division of labour between professionals and patients, shifting responsibilities for escalating concerns onto the patients themselves while undermining their professional role as patient advocate.

> [what we are saying to patients is] 'we know that we're not doing what we should be doing, and we don't have confidence that we're gonna actually recognise that deterioration, so we're giving you the responsibility to let somebody else know, which I think is a little bit undermining of nursing care'. (Senior nurse, site 1, INT 04)

Some nurses also disputed the value of patient knowledge, citing that staff already had the technology available to track and trigger changes in condition and that only professional staff had the skills to interpret these changes, while other nurses reported questioning or disbelieving the validity of patient concerns.

Operationalising patient concerns

Despite promotional material (leaflets and posters) advertising the system, most of the patients reported knowing little about it, or were not clear whom the intervention was aimed at. This was the case across all sites, despite different forms of the intervention. Earlier iterations of the leaflet had focused on clinical signs of deterioration as calling criteria, but these had been replaced by a more generic criterion around concern. This simple descriptor on the promotional material created confusion; patients described being unsure when it was legitimate to call the Early 3S number. One patient thought that this translated to worries after discharge when they could call the Early 3S number from there. Two patients thought the system enabled families to make general enquiries about their care, while others thought a concern translated to a complaint about staff.

These findings highlight the limits of promotional materials and the need for ward-based education strategies to support the organisational work required to enact patient-led escalation into practice. Structuring the timing and format of the patient education on surgical wards to enable meaningful engagement appeared challenging at times, given the patient population (often elderly with cognitive impairment or acutely unwell).

While all interviewed patients thought the *idea* of a patient-led intervention was warranted, only three reported that they would use it for themselves while in hospital. Its value was linked to the provision of a safety net enacted via a relative's advocacy role.

> I would definitely use it hundred percent would be if I was in [a ward] with a relative that was telling me they didn't understand what was going on. (Patient 0104)

However, organisational work was required to combat patient fears that the intervention itself disrupted social and cultural norms. Patients reported being dependent on staff for their care and did not want to 'rock the boat' or be perceived as a nuisance by their ward team as they perceived this as 'going behind the ward team's back'.

DISCUSSION

In this paper, we have reported on our process evaluation of the implementation of a patient-led escalation system as part of the RESPOND pilot study. We highlight organisational, professional and patient-led factors that influenced adoption and utilisation of this system within three surgical care settings. Our analysis potentially provides important learning for sites currently involved in implementing Martha's Rule within the UK. RRS have been in operation internationally for over 20 years and despite attempts to reduce variability they still vary in composition, activation criteria and implementation processes, and benefits are not always realised.[40] Adding a patient-led activation component is likely to require similar cultural and system-level forms of support. Empirical research to date has largely relied on cohort studies, audit and referral reviews, focus groups and interview studies; this study brings novel ethnographic insights into relationships between the social context of surgical care and the application of patient-led escalation systems within the UK.

Our research highlights the significance of the wider care context including the pressure that staff were facing at the time of the fieldwork and its impact on the workforce.[41] Sites were struggling with turnover of staff and the impact of industrial action. Staff from all three sites reported challenging workforce conditions and exhaustion after COVID which is likely to have had a negative influence on implementation of the system. As Lawton and Thomas note, it is important that the impact of QI projects on staff well-being is taken account of.[42] In the same way that the 'simple' surgical checklist in reality involves challenging and disrupting norms,[43] an effective patient-led escalation system is likely to need significant infrastructural, cultural, professional and relational forms of support.

Healthcare systems face competing priorities and certain types of safety work are mandated and prioritised while the pilot of the patient-led escalation system was not. This created tensions, and staff had to make trade-offs over what they considered to be essential safety work. As Cribb notes, notions of 'improvement' in quality and safety are necessarily value laden and link to accountability frameworks. Clinicians are therefore often required to use 'creative autonomy' to make practical decisions between different safety priorities.[44] It will be interesting to see how the NHS implementation of Martha's Rule will be prioritised against other initiatives in hospitals in England and what pressures it might create.

This paper highlights the extent to which organisational infrastructure such as well-established CCOTs with the capacity to take on additional workload is important in embedding changes in working practices. In line with other studies, we also found that having senior nursing and medical leadership support helped foster organisational commitment to new ways of working.[45]

Our work suggests that staff education should stretch beyond simple communication strategies and instead should embrace working with staff to highlight the value of patient contributions and to enable cultural shifts in professional practice. In particular, when operationalised at ward level, staff were puzzled about the need for a patient-led escalation system and the additional value it might bring. Implementation created additional relational work and posed threats to nursing professionalism and emotional safety for patients. Staff education is likely to need to tackle issues around professionalism, as activations may be understood as complaints rather than concerns.[28] The complexities of managing hospital hierarchies and local cultures will also need exploring practically[46] as will some staff's discomfort about displacing responsibility onto patients and families and the potential unintended impact this may have on trust and relationships.[21]

Similarly, patient education should extend beyond promotional materials and encompass patient concerns about undermining ward-based healthcare professionals and reluctance to add to or burden already busy staff.[47 48] Thought should be given to the timing and equity of patient education delivery.

Previous research has shown how vulnerable, dependent patients invoke the social contract of the sick role,[49] as a way of keeping themselves safe. They invite care by being a good patient.[50] When patients are vulnerable, they need to be able to trust those providing their care. Patient-led escalation systems potentially threaten to disrupt that relationship by casting doubt on the professionals directly looking after them and their ability to provide good care. Speaking up to staff who are more powerful than they are potentially leaves them doubly vulnerable and at risk of damaging the very relationships they depend on.[50] Our research draws attention to the significance of hierarchies and relationships for the design of supportive educational strategies.

Our analysis reinforces the points made by Bell and Martinez[51] who propose that, in order to promote a culture of speaking up, changes should be made to the way organisations listen to patients, and the norms of the hospital culture. In order to empower patients and their family to activate patient-led systems, there is a need to address cultural norms to ensure that patients feel psychologically safe to do so. They note 'the importance of organisational learning, patient experience, respect and prevention of emotional/psychological distress'. Similarly, Halvorsen and colleagues suggest that the process of truly empowering people requires more time to be given to the patient to address their needs and concerns and for a mutual and respectful relationship to develop.[52] This is difficult to achieve, given the often pressurised and demanding healthcare context.

Our findings raise questions about how best to operationalise patient-led escalation systems in acute medical and surgical settings. In paediatric care, where this type of approach has been championed widely,[16 29 53] children's parents are often beside them for up to 24 hours/day. They would, therefore, be in a better position to 'stop the line'[51] than relatives of patients in adult acute care, who are often only present sporadically.

Our study provides insights for those healthcare systems who are seeking to systematise patients, families and carers' contributions to escalation of care. Our findings suggest that successful implementation of a patient-led escalation system is likely to require both infrastructural support and educational strategies to enable social and cultural change, notably to support the relational and organisational work needed for the concept to become acceptable to professional and patient groups.

Strengths and limitations

Despite being a process evaluation of a pilot study, our findings offer useful insights for those currently involved in the implementation of Martha's Rule in the UK, and for others involved in international efforts to embed patient-led escalation into rescue systems. We were able to interview a wide range of surgical unit staff and spend many hours observing on the units which enabled us to illustrate meaningfully strengths and challenges to implementation of a patient-led escalation system. Unfortunately, we were only able to recruit a small number of patients but their views on the Early 3S system were strikingly similar.

CONCLUSIONS

Our paper has highlighted how patient-led escalation of care is a complex sociotechnical practice. It shows the effort that is required from all parties to when introducing a new way of escalating care. It highlights the importance of an equitable system with the right support in place, so that everyone understands what the intervention is trying to achieve, and the value that it can bring. Our work highlights the difficulty of ensuring the right conditions to implement such a system in a healthcare climate where staff are under mounting pressure with increasing demands on their time.

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