England Centre for
Practice Development

Canterbury
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University

SAFETY CULTURE, QUALITY IMPROVEMENT, REALIST EVALUATION (SCQIRE)

Evaluating the impact of the Patient Safety Collaborative initiative developed by Kent Surrey and Sussex Academic Health Science Network (KSSAHSN) on safety culture, leadership, and quality improvement capability

Research Team

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Abstract

Safety in healthcare is an international concern with an impact on the quality of care (Hollnagel, et al, 2015). A Regional Patient Safety Collaborative (PSC), one of 15 nationally set up to place patients, carers and staff at the heart of quality improvements in patient safety, supported four large acute NHS hospital trusts with a PSC initiative to help facilitators use safety and quality improvement tools with frontline teams, mutually supported through action learning. The objective of the current study was to evaluate implementation of the PSC initiative.

The evaluation used a realist evaluation (Pawson & Tilley, 2004) approach to understand what works for whom and why when working with frontline teams in large acute hospitals to embed a safety culture and grow leadership and quality improvement capability. Specifically, the aim was to identify strategies that are effective in supporting frontline teams to sustain bottom up change and quality improvement driven by the needs of patients and practitioners. The study drew on ethnographic principles across study sites using descriptive case study design. Mixed methods of critical observation of frontline practice (RCN, 2007; Austin & Hickey, 2007); stakeholder evaluation (Guba & Lincoln, 1989), emotional touch points (Bate & Robert, 2007; Dewar and Mackay 2009), self-assessment (Jackson et al., 2015), qualitative 360 degree feedback (Garbett et al., 2007) and the Teamwork Safety Climate Survey (Sexton et al, 2006) were used to facilitate the development of a rich picture for each team and context to answer the evaluation questions. The literature was interrogated in independently to distil relationships between context, mechanisms and outcomes to enable generation of hypotheses about individual, team and organisational level factors for safety culture.

Key findings identified an interdependence between clinical leadership within frontline teams, safety culture, safety behaviours and teamwork. These aspects are echoed in microcosm through Safety Huddles; the skills and attributes of facilitators; and the impact of organisations on microsystems. The PSC initiative was a catalyst in supporting frontline teams and organisations in their journey. Theories of culture change at the microsystems level are further embellished.

Summary of Key Findings

Embedding a safety culture in frontline teams

- The most influential factor impacting the development and embedding of a safety culture in frontline teams is the quality of clinical leadership

- Safety cultures are recognised by a set of values that are articulated, embedded, integrated and observed in action, i) being person centred, ii) focus on holistic safety; and iii) ways of working that embrace learning

- Quality clinical transformational leadership achieves and sustains safety cultures in frontline teams through enabling: effective teamwork, shared direction and values, safety behaviours and a safe environment.

- Transformational leadership enables a participative collaborate and inclusive approach for working with staff and service users and results in staff and service user empowerment and an approach to improvement driven by asking what works?

- Observations of Practice is a powerful tool for engaging staff in celebrating excellence and recognising dissonances between values and actions.

- A successfully implemented safety huddle is driven by frontline teams and embraces both patient and staff safety promoting interdisciplinary collaboration and effective teamwork.

Facilitation of a Safety Culture in Frontline Teams

- A wide range of skills are needed for learning, improvement and development but most essential is enabling engagement, participation and meaning with all key stakeholders.

- Organisational facilitators are an important resource for supporting frontline teams and working together to achieve organisational systems for learning, development, improvement and innovation.

- Facilitators need organisational support to capitalise on organisational learning and working together to sustain improvement.

Organisations committed to supporting frontline teams develop a safety culture

- Organisations build capacity across the system for quality improvement and innovation so that organisational intelligence and capability is enhanced.

- Organisations invest in the role and support of facilitators to maintain systems for learning, development, improvement and innovation

- Organisations recognise their role is to support clinical leadership and frontline teams as the most essential focus for achieving and sustaining safe, person-centred and effective workplace cultures.

- Organisations use all developmental opportunities provided with frontline teams to inform organisational learning, working in balance to prevent project fatigue on individual teams.

- Organisations embrace programs like the Patient Safety Initiative as a catalyst to facilitate focus on frontline teams and their safety culture with the biggest impact around Huddles – frontline teams feel valued and empowered as microsystems from this bottom up initiative.

Summary of Recommendations

Commissioners rolling out PSC initiatives across the system

- Ensure that PSC initiative schemes are clearly linked with Sustainable Transformation Plans to improve the quality of services for the regional locality and interconnected with the broader national drive for improvement.
- Invest in the infrastructure and staffing resource to ensure that there are sufficiently skilled and competent systems leaders with the QI and culture change skill set to facilitate complex change at all levels of the system.
- Provide clear guidance regarding the QI methodology (ensuring this embraces soft and learning skills as well as the technical tools) used across the system to promote clarity, focus and continuity of approach.
- Ensure that the IT system can provide and support the dashboard metrics and reporting infrastructure required to offer rapid reporting on safety and quality metrics to frontline teams.
- Commission a wider integrative impact report across AHSN regions to demonstrate the collective power and impact of what works best to support bottom up change for quality improvement and patient safety across the system. This approach could help provide a resource bank of useful case studies and stories that will give organisations the confidence to invest in similar initiatives locally.

Facilitators at Organisational Level

- Agree and embed an interconnected strategy for the implementation of quality improvement and associated initiatives such as Huddles across all levels of the organisation with a focus on patient safety themes linked to key priorities for improving standards of care and patient/staff experience and wellbeing.
- Organisation to understand the issues and challenges associated with clinical roles at the frontline of practice, modelling the way with facilitating improvement activities in real time.
- Be alert to project overload by having a clear organisational plan for measured improvement projects that are realistic and achievable.
- Adopt an appreciative inquiry/learning from excellence model and approach to embedding improvements in practice at all levels of the organisation.
- Ensure supportive and governance infrastructure is in place across the organisation at all levels to build quality improvement and safety capacity and capability through an organisational coach/critical companion network for both mutual and organisational learning.
- Invest in the development of transformational clinical leadership skills at all levels of the NHS Career Framework in order to develop the confidence, capacity and capability for sustainable bottom up change and improvement.
- Demonstrate collective commitment to understanding what works in relation to risk and harm reduction and share this widely to promote organisational awareness through regular and

varied reporting mechanisms for the frontline and back with a focus on enabling learning for continuous patient safety and quality improvements.

Facilitators of Frontline Teams

- Formally develop the facilitation skills required to enable the workplace to be used as the main resource for learning development, and improvement from individual and team level through to organisational systems wide.
- Use Observations of Practice as a culture tool to enable dissonances to be identified and acted on as well as areas for celebration to be recognised.
- Meet regularly with other facilitators in the network to share experiences, best practice and challenges to offer mutual support and critical companionship.
- Take the opportunity to visit other sites that are engaged in quality improvement and patient safety initiatives to learn how it has been done elsewhere.
- Use quality improvement methodology together with facilitation of learning, reflection and engagement to help teams across an organisation develop their collective know how, competence and confidence in using different measurement tools and methods.
- Provide teams with relevant information to enable informed decisions about engaging in improvement programmes/projects.
- Support safety and quality champions within teams to build capacity and capability across teams for collective impact.
- Support teams to celebrate and share their successes and key learning through implementation of safety/quality initiatives including Huddles.
- Be visible and embedded with frontline teams engaging in quality improvement and patient safety projects to offer continuity of high challenge and high support during the journey.
- Support frontline teams to critically reflect on their development and share their experiences with others across the organisation creatively through social media, organisational reports, newsletters and webpage case studies.
- Support teams to overcome the busyness of practice and stay focused to maximise opportunities for team learning and successful project outcomes and impacts.

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The Project team

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- **International Advisory Board**

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- Sarah Leng, Programme Manager, Patient Safety Collaborative for support in enabling and optimising participation of acute trusts in the project

1. Introduction and overview

The evaluation aims to identify the impact of the Patient Safety Collaborative initiative (PSC initiative) developed by Kent Surrey and Sussex Academic Health Science Network (KSSAHSN) on safety culture, leadership and quality improvement capability in frontline teams across four acute NHS Trusts in South East England. The evaluation specifically identified the strategies that are effective in achieving the outcomes using realist evaluation (Pawson & Tilley, 2004) and critical ethnography (Austin & Hickey, 2007) within and across the four acute hospitals sites using descriptive case study design (Yin 2003). Realist evaluation asks the question, 'what works for whom, in what context and why?'.

2. The Patient Safety Collaborative initiative (PSC initiative) and underpinning assumptions

The main focus of the PSC initiative implemented and evaluated was to:

a. Support frontline teams through leadership to use quality improvement (QI) skills e.g. Health Foundation QI Pyramid (Gabbay et al., 2014) and Safety Huddles (Department of Veterans Affairs, 2000).
b. Develop and embed a safety culture in everyday work by using the workplace as the main resource for learning and transformation.
c. Provide organisational support with a `ward to board' ethos focusing on organisational facilitators who are supported across organisations through action learning.

The QI skills and knowledge was intended to be applied to specific quality and patient safety issues of relevance to the four case study sites. The evaluation was intended to enable participants and other stakeholders to contribute to identifying the strategies that work in and across their different contexts as teams developed and implemented the skills. Action leaning was provided to support facilitators with reflection, critique and learning that would enable insights to be shared across the four sites.

The assumption underpinning the PSC initiative is that transformation does not happen by top down change, training and raising awareness, but through individual and collective development of their self-awareness. This in turn enables self-empowerment and then implementation of their learning, supported and challenged by teams with a shared purpose and shared values using a systematic approach and leadership. Leadership was the main

strategy for developing and embedding workplace cultures that are safe, effective and person centred, where learning is valued (Manley et al 2011). Although organisational enablers are influential in supporting frontline teams and their culture, specifically organizational readiness, there is also potential for understanding how the PSC initiative can inform organizational learning – an aspect of organizational readiness (Weiner 2009). The PSC initiative therefore embraces individual, team, pathway and organisational enablers, as well as identifying and addressing barriers by using an appreciative inquiry approach to identify what works so that participants can build on these positively (Cooperrider & Whitney, 2011).

2.1.   The PSC Intervention

The PSC initiative initially comprised 3 interventions and this involved providing support to the four case study sites, through 1) opportunities to learn from Yorkshire & Humber Improvement Academy in relation to the use of Safety Huddles and other quality improvement tools, 2) use of the Teamwork Safety Climate Survey (Sexton et al., 2006) and 3) action learning support for organisational facilitator's teams supporting frontline teams. Later the opportunity for staff from case study sites to attend a four–day Institute of Health improvement 'Accelerated Patient Safety Programme' was also provided.

Figure 1: PSC initiative intervention evaluated
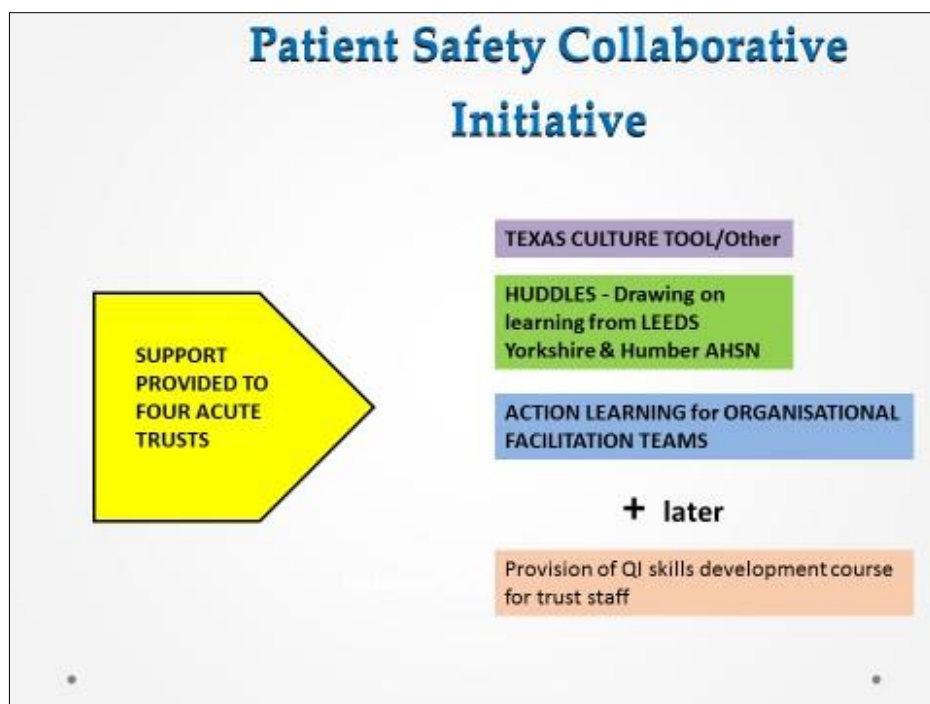
2.2. Aim of the Evaluation

The commissioners of the evaluation, the regional Patient Safety Collaborative, funded and supported by the regional Academic Health Science Network Kent Surrey and Sussex (AHSNKSS), wanted to understand how the PSC initiative may help support the development of a safety culture at the frontline.

The aim therefore was to evaluate the impact of PSC initiative on safety culture, improvement capability and leadership across four acute NHS Trusts in Kent Surrey & Sussex. The specific evaluation questions were:

1. What is the impact of the PSC initiative on patient safety culture, quality improvement capability and leadership?
2. What works for whom, in what context and why? (This question embraces the strategies for impacting on safety culture, leadership, quality improvement capability and also learning across contexts that can be transferred).

A third question, informed the methods used to answer with other data sources the two questions above:

3. What are the experiences of, and impact on, participants and stakeholders involved with the PSC initiative?

3. Methodology

3.1. Design

Realist evaluation, drawing on ethnographic and stakeholder perspectives, was selected to guide the evaluation within a descriptive case study design (Yin, 2003). This approach enables the strategies that are influential within and across the four different case study sites to be identified and linked with specific outcomes. 'Realism utilises contextual thinking to address the issues of 'for whom' and 'in what circumstances' a programme will work.' (Pawson & Tilley, 2004:7). Philosophically, 'realism sits between positivism - the external world exists which we can come to know directly through experiment and observation - and constructivism where all we know has been interpreted through human senses' (Greenhalgh et al., 2015:3). When using Realist Evaluation the imperative is to sort out the contexts that are supportive to knowledge and skills translation and those that are not. 'Context must not be confused with locality. Depending on the nature of the intervention, what is contextually significant may not only relate to place but also to systems of interpersonal and social relationships, and even to biology, technology, economic conditions and so on' (Pawson & Tilley, 2004:8).

Key to realist evaluation is the local development, testing and refinement of relationships between contexts (C), mechanisms (M) (i.e. triggers) and outcomes (O); termed the MCO relationships. Context 'describes those features of the conditions in which programmes are introduced that are relevant to the operation of the programme mechanisms' (Pawson & Tilley, 2004:7). Mechanisms 'refer to the ways in which any one of the components or any set of them, or any step or series of steps brings about change. Mechanisms thus explicate the logic of an intervention; they trace the destiny of a programme theory, they pinpoint the ways in which the resources on offer may permeate into the reasoning of the subjects' (Pawson & Tilley, 2004:7). Quality standards for reporting realist evaluation (Wong et al., 2017) emphasise the importance of identifying the theory informing current understanding of what is being evaluated, before then developing programme theories to be tested. This involves the researcher identifying the combination of context and mechanisms that enable the outcomes to be distinguished, tested and refined to describe what works, why it works and for whom it works. In addition, identifying what does not work. In the context of this evaluation the aim was to answer these questions in relation to embedding safety culture, clinical leadership and quality improvement capacity at the frontline, the impact of the PSC initiative and translating quality improvement skills. The theories that describe and explain our understanding of these areas prior to this project are summarized in Figure 2.

Figure 2: Substantive theories informing the realist evaluation at the microsystems level (frontline teams)

THEORIES INFORMING EVALUATION –
MICROSYSTEMS LEVEL

➢ **Developing frontline culture** – the ways things that are done around here- embraces holistic safety as a value, ways of working/team effectiveness and person-centredness and organisational enablers (Manley et al 2011, West et al 2014)

➢ **Safety culture emphasises** safety values and safety practice, human factors and increasingly a focus on building on what works across systems and how improvement can be achieved Safety 2 (Nieva & Sorra 2003; Hollnagel et al 2015)

➢ **Organisations have a role in supporting microsystems (frontline teams)** as they can only be as good as the micro systems of which they are composed (Nelson et al 2002, Berwick 2008)

➢ **Organisations enable microsystems** by having in place systems for learning, evaluation and governance (Manley et al 2011, Plesk 2001)

➢ **Transformational leadership and holistic rather than technical facilitation together with other contextual factors** influences successful implementing of evidence into practice (Rycroft-Malone et al, 2008), culture change and using the workplace as the main resource for learning, development and improvement (Manley et al 2011; Manley & Titchen, 2016; Martin & Manley, 2017)

The specific theory of cultural change at the microsystems level underpinning the realist evaluation is outlined in Figure 3.

Figure 3: Theory of culture change at the microsystems level

Each site was an independent case study, facilitated by a site Research Lead from the project team. At the end of the project, strategies that worked and did not work across the four acute contexts together with insights from the literature were synthesised. This is because different organisations may have different contexts or starting points and what works in one may not work in another. Alternatively, strategies that work in some contexts may be transferrable to other contexts. Iterative critique of understanding the key Context- Mechanism-Outcome (CMO) relationships emerging was achieved from interrogating the literature, engaging with stakeholders in the programme, a consensus event and critique from an international panel of experts.

3.2.   Methods

The ethnographic link to realist evaluation enables mixed methods to contribute to multiple perspectives for both researcher and participant reflexivity. Various data sources were used to generate theories including documents, literature, documentary analysis, interviews with

stakeholders, programme participants and programme architects, and formal programme theory underpinning programmes as patterns of CMO.

Multiple perspectives and data sources across the four case studies included: critical observation of frontline practice (RCN, 2007; Austin & Hickey, 2007); stakeholder evaluation (Guba & Lincoln, 1989, emotional touch points (Bate & Robert, 2007; Dewar and Mackay 2009) using The Health Foundation's QI Pyramid (Gabbay et al., 2014), self-assessment (Jackson et al., 2015), Qualitative 360 degree feedback (Garbett et al., 2007) and drawing on the insights of using the Teamwork Safety Climate Survey (Sexton et al., 2006). These mixed methods facilitated the development of a rich picture for each team and each context to answer the evaluation questions (see Table 1).

The busyness of the frontline teams, timing of staff engagement and varying relationships in the workplace meant that the aspired frequency of methods used was ambitious and could not be achieved in all the teams with exception of three teams from one case study site.

1.1. Analysis

All data sources were analysed independently. Table 2 illustrates how this was taken forward to develop the final insights into what works and why. Interrogation of the literature and subsequent mapping of the literature against the CMO frameworks and the generation of the hypotheses as outlined in Table 2 was completed by the whole project team.

Site based data was analysed thematically and inductively by the site Principal Investigator and fed back to frontline teams or stakeholders for verification, analysis or use by them. Mapping of the site based data against the CMO templates was undertaken and verified by between either two or three of the Principal Investigators. Table 2 illustrates the process of obtaining feedback from the International Advisory Board and the generation of the final synthesis.

Independent of the site based qualitative data, findings from the Teamwork Safety Climate Survey were explored to identify changes on sites that used the pre and post PSC initiative. A stakeholder questionnaire underpinned by Normalisation Theory (May, et al., 2015) was used to contribute further understanding about how embedded the interventions were at each site with focus on sense-making, participation, action and monitoring towards the end of the evaluation period.

Table 1: Methods to answer each question

Question	Methods

1. What are the experiences of, and impact on participants and stakeholders involved with the PSC initiative?
• individuals delivering the safety culture interventions,
• frontline teams undertaking the assessments of their safety culture,
• organisations in which the assessments are taking place (particularly, the executives/boards of these Trusts)
• Patient Safety Collaborative (PSC) team.
	1.1. Stakeholder evaluation (Guba & Lincoln, 1989) using Claims, concerns and issues
	1.2. Individuals delivering the programme
	  • Pre and post cognitive mapping re: confidence
	  • Qualitative 360 degree feedback in relationship to leadership.
	  • Self-assessment about leadership.
	  • Pre and post hopes, fears and expectations.
	  • Emotional Touchpoints in relation to the QI Pyramid (Gabbay et al., 2014)
	1.3. Review of programme evaluation data.

2. What is the impact of the PSC initiative on patient safety culture; quality improvement capability and leadership?	2.1. Teamwork Safety Climate Survey (Sexton et al., 2006).
	2.2. Critical ethnographic observations of practice in rotation to explore:
	  • Safety, learning and other key values - espoused, lived and embedded.
	  • QI tools and processes experienced.
	  • Leadership behaviours.
	2.3. Review of local dashboard quality and safety data relevant to specific frontline teams
	2.4. Questionnaire to establish level of embeddedness with the specific intervention based on normalization theory (May et al., 2015).

3. What works for whom, in what context and why?	3.1. Identifying attributes, enablers and consequences through interrogating the literature to generate draft CMO relationships at individual, team and organisational levels. 3.2. Generating intermediary CMO relationships for each team and site. 3.3. Consensus conference with all participating sites & stakeholders to review and critique draft intermediary CMOs from sites and literature 3.4. Refining and retesting over remainder of project and post project data. 3.5. Translating CMO hypotheses to statements about what works, why it works and for whom it works. 3.6. Triangulating data across literature and sites. 3.7. Critique by expert international advisory panel on two occasions.

Table 2: Overview of process for analysis of SCQIRE data

LITERATURE REVIEW DATA	CASE STUDY SITE DATA
1. Literature Review on following topics; • Patient Safety • Safety Culture & Leadership & QI Capability	1. For each site, all available project datasets analysed i.e. Observations of Practice; Claims, Concerns and Issues (CCIs)[1], Emotional Touchpoints, 360 Degree feedback, pre and post cognitive mapping and self-assessments and aligned to a CMO[2] template linked to its original evidence source by each principle investigator (PI)[3]for site 1-4. 2. **Interim CMO relationships** shared for each site with project teams using data analysis available at the midpoints by each Principle Investigator.
3. All literature read to generate themes by two members of research team 3.1. Themes mapped against concept analysis framework for each of two literature areas above: • **Enabling factors** • **Attributes** • **Consequences** 3.2. Framework themes aligned to the following three levels of concept analysis framework: • Individual • Team • Organisation/service/system 3.3. Themes amalgamated for both literature reviews to describe the enabling factors, attribute and consequences that reflect an integrated concept that embraces safety culture, leadership and QI and patient safety concepts at individual, team and organisational levels (by project Chief Investigator (CI)[4]. 3.4. Themes aligned to **Context-Mechanisms- Outcome Relationships** (CMOs) at individual, team and organisational levels by whole research team.	3. For each team within each site, each data bite given its own individual descriptor and aligned to CMOs across one of four areas relevant to the project: • The frontline team and safety culture • Senior facilitators/leaders working with frontline teams to embed safety culture, QI in frontline teams • Patient Safety Collaborative initiative used in context of acute trusts • Patient Safety Collaborative initiative used with facilitators/frontline teams This resulted in 10 different sets of CMOs across FOUR organisations. This analysis has been undertaken by each Principal Investigator and verified with a second team member. Linked to stories and case studies.
4. Hypothesis written for each CMO statement derived from the literature developed by CI **DOCUMENT 1 PROVIDED LITERATURE CMOs and hypotheses for review by international advisory board**	4. **CMOs for all four sites amalgamated** to synthesise theoretical insights for each of the four areas above in relation to: • What works? Including what does not work • Why it does works? • For whom it does works? (undertaken by CI & PI) **DOCUMENT 2 RESULTING COMBINED SITE DATA WHAT WORKS FOR WHOM AND WHY**
INTERNATIONAL ADVISORY BOARD REVIEW PROCESS QUESTIONS 1. From your professional expertise and experience do the relationships identified in document 1 and document 2 reflect and embrace all the factors involved in embedding a safety culture in practice teams? 2. Are there any concepts missing that you would have expected to have been identified? 3. Are there any concepts that need to be explained or described more simply/fully? 4. Are there any other comments you would like to make?	
REVISION BASED ON ADVISORY BOARD FEEDBACK Add in any insights from Site 1 Add in additional insights from pre and post cultural tools, organisational metrics and safety culture normalisation tools Provide stories that illustrate what works and does not work from data Amalgamate literature hypotheses and case study site insights FINALLY what works why and for whom with STORIES TO ILLUSTRATE **TO REVIEWERS** **FINAL REVISIONS**	

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[1] CCIs - Claims concerns and Issues Tool
[2] CMO - Context Mechanism and Outcome
[3] PI - Principal Investigator
[4] CI – Chief Investigator

3.4. Ethical implications

The ethical implications for this evaluation were mainly associated with two areas:
- Maintaining anonymity.
- Reducing the burden of data collection on individuals and teams while enabling learning to be shared for the benefit of all involved.

Several adjustments have been made in the report to enable stakeholders and frontline teams to both contribute to and benefit from the evaluation data in a way that also protected anonymity for individuals, frontline teams and the four acute sites involved. While every data bite can be tracked back to a specific data set (not included in the report), only site numbers or team numbers have been referenced to protect anonymity of sites in the final synthesis illustrating what works for whom and why, across different sites. Stories and case studies resulting that illustrate CMOs have intentionally had all source references to stakeholder groups and sites removed and also have been made gender neutral. The stories have been agreed with site facilitators.

Minimizing the burden on frontline staff required the research team to be as flexible and sensitive as possible in collecting data and also offering this to staff. This, as well as a number of other factors, subsequently compromised the frequency of data collection. Whilst no changes to normal patient intervention was involved, all the frontline teams participating were incredibly busy with multiple agendas to address over and above the care of patients and service users. It was difficult for frontline teams to find time to engage in collecting data, especially teams that were not familiar with practice based tools. Data collection was less burdensome within teams that were already using evaluation tools and methods in practice.

Application for ethical clearance coincided with the launch of the awarding body (NHS Health Research Authority (HRA). This resulted in a time lag of three months between the submission for ethical clearance and the permission to proceed with the evaluation due to the overwhelming number of applications the HRA were processing. Whilst implementation of the patient safety collaborative initiative continued, collection of evaluation data could not start. When ethical clearance was granted (reference number IRAS ID 206879), the process of achieving informed consent for some of the participating trusts was an onerous experience.

3.5. Overview of four sites

Four acute hospital sites were selected by the Patient Safety Collaborative to be supported from eight who applied. Figure 4 provides an overview of the facilitation teams, organisations and the frontline teams involved. Ten frontline teams in total were involved in using one or more elements of the PSC initiative outlined previously in Figure 1.

Figure 4: Illustrating the facilitation arrangements across each site and the frontline teams supported

PARTICIPANTS

Site 1: Overall project lead with clinical leads/managers for each team

Site 2: One ward previously invested in with intensive facilitation support. Facilitation team comprised clinical Lead for safety and organisational lead for safety. Organisational lead for safety took over immediate support role for ward

Site 3: One overall project lead, with senior clinical lead for each team

Site 4: Team comprising four senior clinical leaders with one facilitating each team

FACILITATORS

Site 1 working with three teams:
- Antenatal and post-natal ward
- Respiratory ward
- Clinical decision unit/urgent care

Site 2 working with one team
- Ward previously experiencing a high fall rate

Site 3 working with two teams
- Midwifery Delivery Suite
- Emergency Department

Site 4 working with four teams:
- Frailty ward and safe discharge
- Renal ward and sepsis
- A &E and patient transfer to wards
- Ambulatory Care – safety huddle

3.6. Frontline teams engagement with project data

Frontline teams commenced their focused support and engagement with the PSC initiative in May 2016 with the first action learning set provided in June 2016. The initial plan was to start data collection in May/June 2016 (See Appendix 1), but due to the delay in obtaining ethics approval the evaluation started in August 2016. The period of data collection therefore spanned between August 2016 - August 2017. As explained earlier, the engagement of

frontline teams varied due to three factors, i) the busyness of the areas, ii) the timeliness of the data collection and iii) the relationships influencing the frontline teams. All ten frontline teams engaged with stakeholder evaluation and some aspects of facilitator self- assessment. Nine frontline teams engaged with observations of practice, more extensive stakeholder evaluation and Emotional Touchpoints. This qualitative data was analysed and informed the CMOs for each frontline team. All ten frontline teams participated in using either the Teamwork Safety Climate Survey or an equivalent tool at the beginning of the project. Five teams partially completed the Teamwork Safety Climate Survey/equivalent at the end of the project. The low return rates from frontline teams could not enable any appropriate comparison, however the use of the Tool is referred to in the qualitative data and insights about how using the Tool contributes to what works and why? Six teams completed a Normalization Questionnaire at the end of the project, but the return rate was very low and did not enable comparison. Using this tool was experimental and like the Teamwork Safety Climate Survey is difficult to enable busy practitioners to see their value or know how to use them. Six teams particularly valued the use of Observations of Practice as an approach that could support the development of a safety culture. Two of these teams had not previously used the Tool and one of these subsequently used the Tool to also integrate evaluation of human factors.

4. Findings

The findings are presented in three sections. The first section is provided as a standalone resource entitled 'Safety Culture: Individual, team and organisational context, mechanisms and outcomes from the literature'. This is an extensive piece of work that gives the background to the project in relation to patient safety and safety culture, the literature search strategy and resulting insights developed from our understanding to generate CMO relationships at the individual, team and organisational level. The framework presented in the Appendix 2 is a distillation of what works and why it works from these extensive insights incorporated into 16 literature themes, which have contributed to the final synthesis of what works and why relating to:

- Frontline Teams developing safety cultures.
- Organisations supporting frontline teams.

The second section of the findings presents a framework, drawing from the final synthesis of all site data to which literature themes are aligned (Appendix 3).

The third and final section of the findings uses the themes emerging to identify what works and why it works as well as what does not work (*where this is identified in the data*) for the following key elements:

- The PSC initiative.
- Frontline teams developing safety cultures.
- Facilitators working with frontline teams to embed safety cultures.
- Organisations supporting frontline teams and facilitators with the PSC initiative. Two case studies and three stories illustrate the key findings.

4.1.   Synthesised findings and framework

The interrogation of the literature led to identification of the 12 themes in relation to what works for whom and why in two areas- frontline teams developing their safety culture and organisational support required to support frontline teams (Appendix 2). Further testing of these CMO relationships was achieved through independently generating CMOs for each of the 10 frontline teams, and then each Site. Independent Site CMOs were synthesised with the literature themes to generate a final synthesis of what works for whom and why in relation to five interdependent elements: i) the PSC initiative, ii) frontline teams developing their safety culture, iii) Facilitators working with frontline teams to embed safety culture, iv) organisations supporting frontline teams and v) facilitators with the PSC initiative. The interrelation between these five areas and the broad themes emerging are represented conceptually in Figure 1.

Frontline teams are at the heart of this conception because they were the focus of the PSC initiative as a microsystem reflecting vital interface between recipients and providers of care (Nelson et al., 2002). The organisational context impacts on how supported microsystems are and the organisational systems to achieve this support.

The many policy initiatives bombarding healthcare organisations are labelled as multiple initiatives and challenges. These permeate to frontline teams experienced as 'top- down' by initiatives. The facilitators in the organisation are brokers for both frontline teams and organisational learning. The PSC initiative through the action learning sets enabled mutual sharing and learning with facilitators across each of the four acute care organisations. Figure 5 is the conceptual framework conveying the five interdependent components when developing a safety culture at the frontline with key themes emerging from the realist evaluation.

Figure 5: Conceptual framework of interdependent components in developing a safety culture at the frontline
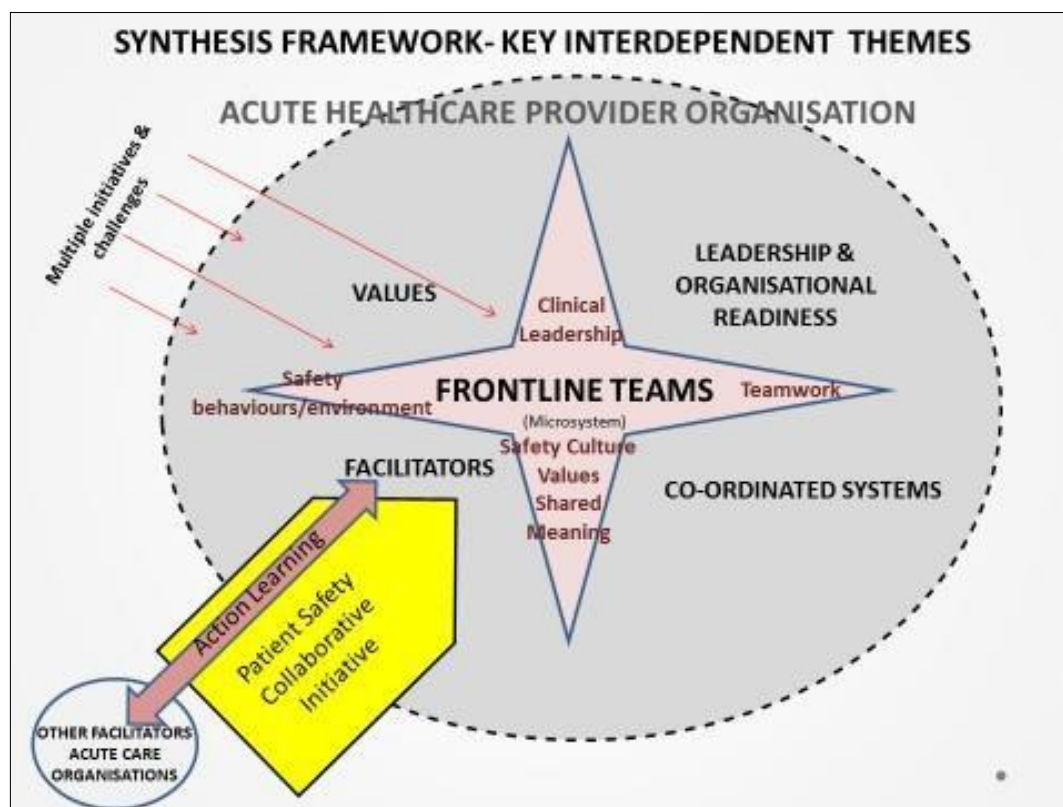
Whilst the five elements are interdependent, each is now presented in more depth to illustrate what works and why it works. We also present what does not work, where this has been learnt. Two case studies and four stories provide insights about what works and what does not work more profoundly often embracing all five elements.

4.2.   The PSC initiative: what works and what does not work?

The PSC initiative was a supportive intervention. It did not prescribe exactly what was expected of organisations, but provided support to organisations and facilitators of frontline teams to focus on what was important to them. The PSC initiative acted as a catalyst through providing tangible support with 1) using the Teamwork Safety Climate Survey, 2) learning from Leeds, Yorkshire and Humber Improvement Academy (Y&HIA) and other improvement initiatives, 3) providing access to a formal four-day improvement programme for facilitators in each organisation and 4) providing action learning support for organisational facilitators. Table 3 identifies what works and why it works and what does not work for the Patient Safety Initiative.

Table 3: The Patient Safety Initiative what works, why and what does not work

What it means in this context: The PSC initiative acted as a catalyst to participating organisations through a range of interventions to support them with safety and improvement at the frontline and also provided a forum for mutual support and learning of organisational facilitators. To capitalise on the potential that the PSC initiative has to offer a number of enablers have been identified that would inform future roll-outs.

What works: Overall Project
- ✓ A focus on frontline teams and safety culture was experienced as positive by staff.

Why it works
- Staff felt this showed concern for staff and safety not just flow.
- Staff felt there was a focus and interest in what they were doing and improving.
- Staff felt pleased to have a focus on safety culture using the Teamwork Safety Climate Survey and CCIs to focus on and tease out elements of work.

What works: Huddles
- ✓ Effective team working and leadership.
- ✓ Having agreed purpose & structure, adapted to own setting.
- ✓ Always happens at predetermined times.
- ✓ Staff driven and staff co-create – everyone works together.
- ✓ Focus on staff safety as well as patient safety.
- ✓ Multi- disciplinary team work and culture of speaking up.
- ✓ Communication with comprehensive information prepared for the Huddle.

Why it works
- ✓ Speeds up & escalates decision making, moves thought processes.
- ✓ Enables everyone to be involved and work together for solution and to know what is happening.
- ✓ Better communication and information across multidisciplinary teams.
- ✓ Enables staff and patient wellbeing.
- ✓ A tangible difference in the structure of day is perceived, although the impact more difficult to measure at present.

When it does not work?
- Lacking leadership for teamwork and staff participation manifested in a lack of interest, commitment and uptake with no clear purpose direction and structure for the Huddle.
- Where there was not a safety culture staff felt they couldn't be honest in raising safety issues.
- Challenges about the environments in which the Huddles took place and the impact on confidentiality derailed successful implementation.

See Figure 6 – for more detailed insights into what worked and didn't work.

What works: Teamwork & Safety Climate Survey
- ✓ Knowing how to use the tool and what the results mean.
- ✓ Using the Teamwork Safety Climate Survey to tease out elements/patterns of work as the basis for improvement with team.
- ✓ Knowing what to do with the results
- ✓ IT support for ease of use, analysis & presentation.

Why it works
- ✓ Confidence and experience in using the tool and making sense of what it means.
- ✓ Identifies patterns which can be used to enable shared decision-making & direction.

What does not work
- Pandora's Box is opened if facilitators don't know how to work with the findings or have conversations with teams about how to move forward.
- No support from IT departments to embed the tool for ease of use, analysis and interpretation.
- Evaluating the subtleties of changes in culture, particularly with poor uptake from busy practitioners.

What works: Action Learning
- ✓ A powerful forum to promote sustained engagement, tease out issues and realise you are doing okay.
- ✓ Building networks.
- ✓ Learning from others in other organisations.
- ✓ Learning what was expected about the PSC initiative.
- ✓ Expert facilitator of action learning.

Why it works
- Feeling supported and recognising others had similar challenges.
- Tease out issues.
- Knowing others have similar issues and challenges.

What could have worked better?
- Although 3 months' notice was given for each of the action learning meetings, and dates were agreed with facilitators, booking from one meeting to the next. Absence was due to being too busy, or not being able to participate in early sessions due to work commitments

What could have worked better?

Overall:
- Co-ordinated cross- organisational collaboration, support, and leadership could optimise organisational learning for the organisation and help with navigation of the project and its potential outcomes.

Why didn't this happen to the extent it could have?
- The enthusiasm and leadership of the facilitators articulated the value of the project and its methods for sustainable innovation across the trust and in some sites showed how co-ordinated action was a potential asset to the organisation – this has yet to be built on (see Case Study 2, Appendix 6).
- In other sites co-ordinated cross- organisational collaboration, support, and leadership did not happen either due to the busyness of organisational leads for the project, busyness of other facilitators with emergency care or the impact of major organisational upheaval because of mandatory regulator action plans which also influenced governance functions.
- There was also a danger of project isolation if the project was not integrated into organisational governance systems, with the loss of learning for the organisation.
- Frontline teams were concerned about time, capacity and ability to improve patient safety and whether they had a clear plan especially as multiple other projects were always coming along.
- Having a common approach & guiding principles across case study sites with clear guidelines for participating organisations and teams provide clarity of purpose and too many competing projects detracted from that in some sites but also contributed to project fatigue.

Illustration 1 provides deeper insight into what works and what does not work when introducing Huddles.

Illustration 1: Patient Safety Collaborative Initiative - Huddles: a microcosm for team work

The patient safety collaborative acted as a catalyst for case study sites through supporting the Safety Huddles initiative. This vignette aims to provide greater illustration and insight into what works and why as well as what did not work with Safety Huddles. It draws predominantly on different stakeholder evaluation data from across the three teams involved in the one site. However, stakeholder data was also drawn from the other three sites to amplify what works and why. How the concept was taken forward with different teams illustrated in itself how effective teams were more likely to demonstrate the full potential of Huddles. The concept of Safety Huddles was not always clarified where they were used or agreed as part of their implementation. This indicates the importance of coming to a shared understanding about what Huddles are:

> *"Huddles - it's not the title but what people do, e.g. we use safety debriefings. Let's try it?"*

Huddles were considered to be a simple approach if the language was kept simple.

> *"It's a simple approach. As long as you are using the right language it's easy to understand."*

Some felt that Huddles dominated the patient safety initiative.

> *'Huddles dominate the safety programme more so than appreciated at the start of the project. I came late to the agenda but if starting the project again then would be asking does the implementation of Safety Huddles make a difference to the safety culture of the ward?' Huddles have come in anyways, started 12months ago and will accelerate with Xs input. Previously we had put emphasis on AFTER Action Review method and having conversations about expectations on ward rounds, falls and how these relate to each other."*

The effectiveness of Safety Huddles relied on having a shared understanding, but this was also linked to who was leading the Huddle on a day to day basis and whether the focus had come from staff.

"*Focus has to come from staff and they lead the Safety Huddles*".

"*The effectiveness of the Huddle depends on who is leading it*".

"*Change of team manager following an unsettled period has enabled the concept of team Huddles to be re-energised*".

Where an incremental approach was used, similar to using a PDSA cycle to guide implementation, the concept was customised to the setting, and learning and peer reviews were integrated with the implementation.

"*We have introduced 'Safety Huddles' on the ward. These have undergone some small changes to enable them to 'work' and for staff to feel that they are valuable. I attended a Ward Manager course, which has been valuable particularly in respect of peer support and learning.*"

Successful understanding was linked to Huddles being about:

"*Collaborative conversations between midwife and doctors around woman's notes and care*".

"*Safety Huddles enable team communication*".

"*Safety Huddles enable easy identification of issue*".

"*Prioritises patients who need to be seen first*". "

"*Enables clinical concerns to be highlighted*".

"*Easy identification of issues*".

"*Deliberately ensure have all information before making decisions in Huddles*".

When Huddles worked well where there was clarity of expectation, they promoted good team working and communication and everyone felt listened to with collaborative solutions being the focus. The Huddles were liked for these reasons:

"*The Huddles happen at pre-determined times, everybody knows when and what to expect and are ready*".

"*Safety Huddles promote team involvement, good communication and everyone feels listened to*".

"Each team member was given the opportunity to speak up in urgent care. They remind each other of the current waiting time, talk about concerns reference patents, confirm doctors' roster so know who is available, and maintain notes from Huddles. They work together to resolve issues. Creating solutions as a team, exploring problems from all sides".

"The Safety Huddles gives individual members of the team a time to voice concerns to others and ask for assistance".

"The doctors helped each other to get the notes ready". "Practice plan, prepare and solutions".

"Good implementation and Team work". "Involving all members of the team". "Everyone involved from reception to doctors".

Where Huddles were not so successful was reflected in a less collaborative approach with not all parties actively or voluntarily involved, a lack of shared meaning or lack of focus on consistent sustainable action.

"Sometimes nurses are not involved in the Safety Huddles". "During busy periods Huddles may be omitted".

"There's sometimes a limited response to issues like staffing even when it is discussed in Huddles".

"Staff didn't know why they were doing Huddles within the context that the project was thought to be about bladder care, communication, teamwork, staff morale".

"Do not know enough about it- sorry told to attend them".

"That Huddles are not focussed enough i.e. the response from most members of the team are "no concerns".

"Staff not speaking up in a large group feeling intimidated".

"Nothing gets followed up".

Not everyone saw Huddles positively. This tended to be in teams where the concept had not been clarified and structured, the appropriateness of the environment questioned or where staff experienced a culture that did not enable them to speak up freely, or the benefits were not appreciated in the busyness of practice.

> "*Huddles not seen by everyone as being useful*". "*Some staff see Huddles as a waste of time*".

> "*Safety Huddles may not always be the right environment for midwives/staff to address any problems they may have*".

> "*Taking up time from Midwifes that are busy and run off their feet*".

Some areas were not considered areas for quick resolution, such as longstanding staffing issues.

> "*Sometimes a limited response to staffing even though reviewed in Huddle, Long standing issues, couldn't be addressed in 10 minutes.*"

> "*Unsure if staff always give their true safety issues on that shift*".

Huddles were considered successful from a range of perspectives in areas that had successfully implemented them.

> "*Staff were not used to coming together, Safety Huddles were new…but to see 20 people gathered, it's working because I was concerned it would fall to one side*".

> "*This is a quicker way of getting things done*".

> "*Safety Huddles help you to be aware of the gaps provide the opportunity to say and talk about admissions and staff feel able to ask for help*".

> "*Agency nurse knew about the Huddles and was aware of the importance of them in the department*".

> "*Safety Huddles taking responsibility*".

> "*Mapstat (real amber green) in place of safety culture*".

> "*Has shown improvement in some areas of care. Quick win*".

In summary this vignette illustrates how the PSC initiative acted as a catalyst for effective team working, clinical leadership and safety actions taken by the team, and in the successful outcomes of the work that facilitators undertook with the teams. The strategies that work best are ensuring there is clarity of purpose and focus, using language that everyone can understand with a simple approach that promotes shared team understanding. Continuity of Huddle leadership and an approach that customizes it to the needs of the team helps to promote collaborative team work in finding effective solutions to safety issues.

The PSC initiative therefore acted as a catalyst to participating organisations through a range of interventions to support them with safety and improvement at the frontline. They also provided a forum for mutual support and learning of organisational facilitators. To capitalise further on the potential that the PSC initiative has to offer, a number of enablers have been identified to inform future roll-outs. Specifically, having a common approach and guiding principles across case study sites with clear guidelines for participating organisations and teams providing clarity of purpose, as well as enabling all facilitators to benefit from involvement in the action learning by advanced planning of dates. Endorsing the need for IT support and other organisational enablers around governance will further optimise the initiative in future roll-outs. The beneficiaries of what works with the PSC initiative includes: organisations through organisational learning; organisational facilitators through the support and learning opportunities they receive; frontline teams are provided with facilitator support; and ultimately the staff and patients themselves through the impact that the initiative has in moving safety culture forward.

4.3. Frontline teams developing their safety culture: what works and what does not work?

Four themes frame what works and does not work in frontline teams embedding safety cultures, clinical leadership, teamwork, cultures, values, meaning and safety behaviours and environment. Table 4 presents these findings. Established safety cultures were recognised through observations of practice. Figure 6 illustrates observations in one site across two teams that exemplify integrating safety values, being person centred and effective ways of working.

Figure 6: Person centred and safety values observed through observations of practice

Stories to illustrate

Observations from same site and different team

- Doctor requesting to be the one to speak to the family following a death as he had been with the family all week
- The team sharing and listening to each other, jointly making decisions regarding how to take things forward. The occupational therapist states the patient has '*really been trying and he needs our support now*' in response to the team who are not sure how to use the finite resources available to them.

•

Observations from same site and same team

- 'The Dr on ward round praises the registered nurse for detecting the deteriorating condition in the patient which meant that patient needed to be transferred elsewhere'
- 'Patient looks unkempt, he needs to take some medication and requests bottle water as cant take tap water which team gracefully accommodate without making a judgement – nurse comes back with bottled water for the patient from his own supplies.'
- 'The pharmacy technician reviews medication interaction and highlights to senior doctor the two drugs prescribed by Dr should not be given together. Dr responded 'thank you for pointing this out' demonstrating respectful exchange'

•

The impact that clinical leadership can have (*if it is not present*) was observed on multidisciplinary working relationships, the culture and behaviours of the wider team. This was in terms of the values and meaning created, the environment in which decisions take place and impact on others, and the safety actions that result. In the context of frontline teams working to achieve a safety culture, the quality of clinical leadership has a vital impact on: team effectiveness; safety, person centredness and learning values lived and experienced; a sense of shared meaning and direction, which also impact on the behaviours and the experiences of both patients and staff. The beneficiaries of what works for frontline teams are therefore the patients and the frontline staff, in that, effective teams impact on staff and patient wellbeing and on quality and health outcomes. This means that the organisation and society benefit too when safety cultures are sustained.

Table 4: Frontline teams developing their safety culture: what works, why and what does not work?

What it means in this context:
In the context of frontline teams working to achieve a safety culture the quality of clinical leadership has a vital impact on: team effectiveness; safety, person centred and learning values lived and experienced; a sense of shared meaning and direction which also impact on the behaviours and the experiences of both patients and staff.

What works?

1. Clinical leaders (ward managers, clinical leads, team leads, shift leads) who:
- ✓ Model respectful relationships and person- centred values.
- ✓ Are approachable, actively listens to and values patient and service user expertise, engagement and participation.
- ✓ Pay attention to both patient and staff wellbeing.
- ✓ Support teams with patient safety/improvement.
- ✓ Are clinically credibility, model self- awareness, reflection and learning.
- ✓ Creates shared vision/direction and embeds this.
- ✓ Connects everyone for the patient, encourages innovation.
- ✓ Possess personal attributes and qualities, and are transformational leaders.

Why?
Consistently endorses and enables:
- ✓ Service users and staff to feel heard and listened to, to become empowered and this improves experiences.
- ✓ Person centred respectful relationships between all staff members and with service users, so people feel valued and respected.
- ✓ Impacts on a collaborative approach to developing workplace culture.

2. Teamwork
- ✓ Effective team working with consistent good leadership and individual members' willingness (+ other values & qualities) to engage and collaborate for improvement and learning.
- ✓ Use of structured handovers, tools and methods for quality improvement and safe practice.
- ✓ Involving everyone with a shared person- centred focus.

Why?
- • Team members:
  - o Work to a specific shared purpose and plan, have clear roles and expectations.
  - o Collaborate, help each other, learn from each other, share responsibilities – check, question, challenge and support across professional boundaries/status.
  - o Provide high support and high challenge to each other to enable everyone to learn and flourish.
  - o Are aware of the consequences of their actions on others.
  - o Value the contribution of all –this impacts on job satisfaction and solution finding.
- • Team dynamics impact on patient outcomes.
- • Structured tools, methods for QI, handovers enable effective interdisciplinary team working, communication, identifies vulnerable patients, achieves speed of action, accountability and clarity of responsibilities to maximise patient safety.

What works

3. Culture, values, shared meanings
- ✓ Values (person-centred and safety) lived and experienced in practice.
- ✓ Questioning, challenging and checking regardless of status and role - everyone is encouraged to ask questions including junior staff and students.
- ✓ Opportunities to develop shared understandings based on evidence base and shared meanings about what works in relation to reducing risks and harm, recognising and acting on deterioration - all driven by questions about how practice can be improved?
- ✓ Observations of practice provides a powerful tool for developing staff ownership, celebrating, collective learning, identifying dissonance between values and behaviours and providing direction for improvement.

Why?
- ✓ Asking questions and checking feels safe and the norm – a no blame culture enables errors and harms to be picked up and acted on promptly.
- ✓ Confidence to challenge across professional boundaries means human factors and other safety issues are addressed regardless of status.
- ✓ Safety issues are recognised and action taken e.g. around medication, hand washing, notes, drug cupboards, deteriorating patients.
- ✓ Opportunities to understand and develop shared meanings and to know what works changes individual and team behaviour towards preventing harms, recognising deterioration.
- ✓ Where team values focus on improving practice, then learning and action results because team values are experienced in practice.
- ✓ Observations of Practice enables culture to be experienced through a different lens and also integrates human factors. It identifies when there is a dissonance between values espoused and values lived and also enables positive feedback to be celebrated which influences both staff confidence and satisfaction.

4. Safety behaviours/environment
- ✓ Staff make themselves accessible and responsive to patients and service users, promptly responding to call bells.
- ✓ Maintain a quiet, calm environment even when very busy.
- ✓ Work creatively within the constraints of the environment.
- ✓ Safety issues, risks are recognised and acted on promptly to prevent harm, pick up deterioration e.g. medicines management, infection control, sepsis.
- ✓ Pay attention to detail record keeping and keeping notes confidential.
- ✓ Clinical leaders know what is going on and are kept informed of changes.

Why?
- ✓ Patients feel safe when staff are visible and can attract their attention promptly.
- ✓ Staff keep calm even in challenging circumstances.
- ✓ Escalation and policies are always implemented.
- ✓ Staff go extra mile for patients and manage risks

What works:
The strategies that optimize safe clinical decision making for patient and staff wellbeing are respectful multidisciplinary relationships formed through shared team values, clarity of purpose, clear communication and the ability to act on feedback for improvement, as well as listening to and valuing the contributions of team members when developing collaborative holistic action plans for patients and their families.

What does not work:
Poor clinical leadership was observed to have a negative effect on both staff and patient wellbeing and the safety culture. When this was rectified through providing experienced quality clinical leadership then a transformation in how the culture was experienced was dramatic

4.4. Facilitators working with frontline teams to embed safety cultures: what works, why and what does not work?

Table 5 presents findings relating to the skill set, values as well as attributes required of facilitators working with frontline teams to embed safety culture. In addition to transformational leadership, facilitation skills, and the quality improvement (QI) skillset required of effective facilitators, findings in the literature strongly endorse the characteristics, qualities and values required of individuals staff members, facilitators and leaders. These are outlined in Figure 7.

Figure 7: Individual values, beliefs and characteristics contributing to a safety culture

Specific INDIVIDUAL values, beliefs & characteristics for contributing to safety culture
(Literature analysis)

Personal characteristics
➢ Person-centred, compassionate and caring
➢ Authentic, open, honest and trusting with integrity
➢ Supportive, valuing and empathetic
➢ Motivated , showing perseverance, resilience
➢ Are active and adaptive to the work system
➢ Creative, passion with drive and self-efficacy
➢ Enthusiastic and optimistic
➢ Vision and systems thinking

Personal values and beliefs
➢ Respectful and ethical
➢ Accountable, responsible and take pride in one's work
  ➢ Self and safety aware, reflective
➢ A commitment to safety, quality, learning and a blame free approach to incident reporting
➢ Positive commitment to adopting & implementing safe, ethical practice
➢ Courage to speak up assertively

The impact of these qualities combined with the skills highlighted in what works are implicit in Figure 8, sourced through qualitative 360 degree feedback from multiple staff sources. This was feedback to one facilitator/manager who had enabled a safety culture to be established where the service user was at the heart of care, collaboration and participation of staff and service users the norm, and where Safety Huddles introduced also included the safety of the staff (whether they had a break); as well as safety of the service user. It demonstrates what works in terms of facilitator and leadership approaches.

Case Study 1 (Appendix 4) illustrates the emotional resilience and communication skills required of the facilitator offering high challenge and high support when needed. These are important ingredients for empowering and enabling frontline teams to keep their focus and

maintain momentum when there are inevitable challenges to progress. Having a champion who can help to refocus energy and attention on the important aspects of a project and its purpose has a democratising effect that can act as an important buffer to maintain a project on track. Without this there is the potential for projects to languish and fall by the wayside because of lack of clarity by others or a lack of buy in by more senior managers who are not on the frontline.

Table 5: Facilitators working with frontline teams to embed safety cultures: what works and what does not work

What it means in this context:
Frontline teams need to be supported by facilitators who uphold core values around person centred approaches, safety, collaboration, inclusion and participation and continuous improvement and learning. In addition, they require a broad range of skills for safety and improvement. This includes being a transformational leader, the ability to learn, reflect and enable others to participate and co-create a shared sense of meaning as well as the skills required for systematic improvement customised to specific contexts. Facilitators have the potential to contribute to organisational learning but also need time and support for their roles at an organisational level to support frontline teams in sustainable quality improvement.

What works?	Why does it work?

1.Facilitators who are confident transformational leaders:
   ✓ Role model values, active listening, engagement and learning.
   ✓ Inspire and stimulate improvement
   ✓ Challenge & address safety issues/barriers.
   ✓ Use varied improvement approaches.
3. Facilitators with personal attributes: that are approachable, visible, present, self- aware, compassionate and fair.
4. Facilitators who place service users at the heart of improvement.
5. Facilitators who welcome feedback from stakeholders and act on this.
6. Facilitators who support frontline teams with local knowledge and skills to:
    a. Build relationships.
    b. Engage teams in co-creating shared meaning, reflection, positive change.
    c. Integrate safety and improvement actions with activities already happening.
    d. Create a learning and safety culture.
    e. Use QI tools systematically to ensure going in the right direction.
    f. Use observations of practice to celebrate and identify dissonances.
7. Facilitators constantly look to embed improvement and safety into practice & provide staff development.
8. Facilitators integrate new developments/ideas.
	• **Staff feel supported because**:
	   • They are given time & listened to.
	   • It's easy to ask questions and report adverse events.
	   • Staff feel trusted & valued and removes micro-management which also increases accountability.
	• **Staff are engaged, enabled & empowered to:**
	   • Participate in collaborative change.
	   • Know what best practice is.
	   • Have clarity of role & expectations and shared meaning about what is expected.
	Through:
	   ✓ Creating safe spaces for conversations and reflections and thinking about how things can be improved.
	   ✓ Good relationships and shared meanings enable challenge, new ideas and embedding of values.
	   ✓ Service user feedback drives improvement.
	   ✓ Clarity of purpose.
	   ✓ Positivity – what works**.**
	• **All the above enhances safety and enables learning.**

What does not work
Time and workload can potentially limit the capacity of the facilitator to be more effective especially if they are expected to undertake the role with no additional time allowance provided.

"*I feel confident I can run collaborative projects using QI tools (and have) the knowledge to develop a safety culture in the workplace what I lack is the time and space to do this work*".

In addition, lack of organisational infrastructure to support organisational systems for learning, development and improvement to build upon facilitation expertise, capability and capacity. This interface between the facilitation skill set and organisational enablers is illustrated later in Case Study 2 found in Appendix 5.

Figure 8: Verification of qualities required to facilitate safety cultures

Whilst the use of quality improvement tools and approaches were considered important, the ability to engage staff and co create meaning of concepts through discussion and reflection was emphasised. An example of how facilitators would take this forward is demonstrated in Illustration 2.

Illustration 2: Using Observations of Practice: 'Arm's Length' – what does it mean?

This illustration demonstrates two aspects of what works when facilitating frontline teams. The first is the power of Observations of Practice to highlight contradictions and dissonances between the values talked about and the values lived in addition to recognising and celebrating best practice. The other aspect being illustrated is the facilitator's role in helping to engage staff through conversations that focus on expectations through developing shared meaning, which then triggers actions towards improvement. The illustration draws on data predominantly from the Observations of Practice itself as well as facilitator reflections and insights from one site.

Using Observations of Practice with one frontline team, the project facilitator along with the evaluator were able to identify several aspects (22 points) of a good safety culture. These observations were fed back to the staff team immediately following the observation session. However, one theme that was fed back required clarification. This was in relation to the many posters that were displayed around the ward (presumably) to reassure parents and their relatives that they were only an 'arm's length' away from someone who would help them.

> *"It (Observations of Practice) was interesting to see the organisational norms on the ward and how we perceive the rules and act these out, for example when the staff member took the patient to the toilet in relation to the 'Arm's Length' poster – this provides an interesting opportunity for the Ward Manager to explore expectations with staff. My facilitator colleague worked a lot on expectations. So what are the expectations of the poster by staff – is it I am staying with the patient in the toilet, I am standing outside or I am coming back in five minutes? This is fascinating – how we interpret this at one level, what is the clear message, how did the staff member see it, what is the meaning of Arm's Length? Why is there a gap – this focus on meaning was the philosophy that drove the project at the beginning as it is difficult to focus on cause and effect in complex contexts."*

> *"What does 'within arm's reach' mean to staff and what are the expectations for example when patients are using the toilet".*

Achieving shared meaning is a strategy that can achieve change. Observations of Practice was recognised by the facilitator as a powerful tool that enabled contradictions, dissonances and assumptions to be identified which could then direct improvement actions and enable staff to lead these improvements and become empowered.

> *"Observing how the team are working together and looking around to see what is good will obtain feedback about:*
> - *Nature of environment e.g. calm, challenging, questioning.*
>
> - *Relationships and interactions.*
>
> - *Attention to detail e.g. medication.*
>
> - *Values and priorities e.g. person centred, nutrition.*
>
> - *Hand washing.*

- *Interdisciplinary working.*

- *Consistency of practice*".

"It will identify dissonances between commonly used concepts/values and behaviour e.g. 'Arm's Length'. The feedback about this dissonance enable discussions about shared meanings influential in making clear expectations".

"*Observations of Practice tool works and was a really interesting exercise providing small bits of information about relationships. Bigger patterns also emerged (from Observations of Practice) about the micro-interactions. The observations work was interesting, dynamic and seemed to be quite positive*".

In summary this story illustrates how Observations of Practice help to trigger conversations that create meaning within the team to identify and celebrate areas of good practice and to highlight areas that need improvement. The story illustrates that the skills of the facilitator and clinical leader are also important in the process of making meaning in understanding culture and in highlighting dissonance in safety messages, and in enabling staff to become empowered.

Frontline teams need to be supported by facilitators who uphold core values around person centred approaches, safety, collaboration, inclusion and participation; continuous improvement and learning. In addition they require a broad range of skills for safety and improvement. This includes being a transformational leader, the ability to learn, reflect and enable others to participate and co-create a shared sense of meaning as well as the skills required for systematic improvement customised to specific contexts. Facilitators have the potential to contribute to organisational learning but also need time and support for their roles at an organisational level to support frontline teams in sustainable quality improvement

4.5. Organisations supporting frontline teams and facilitators with the PSC initiative: what works and what does not work?

Table 6 presents the findings of core themes of organisational values, leadership and organisational readiness, and co-ordinated systems and facilitator support. Case Study 2 (Appendix 5) demonstrates the potential for how skilled facilitators can assist organisational learning.

Table 6: Organisations supporting frontline teams and facilitators with the PSC initiative: what works and what does not work

What it means in this context:
In the context of acute hospitals for the full potential of the patient safety initiative and skilled facilitation to be achieved and sustained with frontline teams, requires strong organisational values that are demonstrated at every level, and modelled by senior managers and leaders; buy-in from executive teams, reflected in genuine organisational commitment, integrated systems for learning, development and improvement, support and capacity building for facilitators.

What works? Organisational values	**What works: Co-ordinated systems**
Organisational values are expressed and lived by senior managers and leaders ✓ Compassion. ✓ Non-blame, open, transparent reporting culture. ✓ Organisational learning. ✓ Patient & staff involvement & engagement for ownership & empowerment. ✓ Safety, quality & improvement. ✓ Systems thinking. ✓ Sharing clinical & practical experience/expertise. ✓ Communication and information sharing, social action. **Why it works** ✓ Credibility and leadership rests on living values espoused. **A genuine organisational commitment to safety in frontline teams will be reflected in:** ✓ Key safety messages. ✓ Integrated governance approaches that enable organisational learning and the implementation of fast track systems and messages. **Why it works:** ✓ Values are embedded in organisational systems and guide decision making and priorities. ✓ The impact of staffing and increasing acuity on staffing levels is recognised and addressed. ✓ Screen savers endorse organisational messages on safety. **What works: organisational leadership & organisational readiness** ✓ Senior managers and leaders are bottom up focused. ✓ Non-hierarchical, non-power driven bottom –up driven learning organisations. ✓ Adaptive capacity/draw on local innovation. ✓ Supportive, inclusive & involved senior leadership/management committed to safety, QI. ✓ Infrastructure support & education to address biggest risks. **Why it works** ✓ Empowers staff to make their own choices about projects rather than being told what to do provides an opportunity for the organisation to look at culture within teams and consider a different way of working from bottom up grass roots level to grow and sustain innovation.	✓ Organisations take a whole systems approach with highly integrated co-ordinated systems for enabling safety, quality improvement, learning and governance. ✓ Safety & quality-single point of access to safety standards, protocols, standards, safety nets to prevent harms and errors, rapid response teams/other innovations. ✓ Evaluation & Improvement with classification system of indicators and meaningful measures, incentives and celebration. ✓ Governance and simple responsive compassionate complaints. ✓ Rapid triage, diagnosis and treatment, discharge & care co-ordination. ✓ E-records, e-prescribing, medicines management. **Why it works** ✓ Exposure to quality improvement tools promotes organisational awareness of the value and simplicity of measurement. ✓ Observations of practice are useful in promoting learning and could be used more widely to promote organisational learning and development. ✓ The Teamwork Safety Climate Survey has given opportunity to develop the tool further and provides a set of metrics to gauge organisational improvement. **What works: Facilitator support** ✓ Support for capacity and capability building in facilitators of leaning, development and improvement. ✓ Learning & improvement programmes/CPD/implementation science. ✓ Learning communities, protected time/opportunities for reflection, mentoring learning/creativity/innovation. ✓ Champions, improvement teams. **Why does it work** ✓ Grow critical community of people with the skills internally to support organisation learning and support frontline staff.

What does not work- how can it work better?

Buy-in by Trust board and Trust safety governance engagement, with support and clarity of understanding of such initiatives as that provided by the PSC and its potential usefulness to the organisation is crucial.

Authentic board engagement and support of QI initiatives is needed to support facilitators at the frontline.

Oversight at board level to prevent project overload and staff feeling overwhelmed by organisational change.

Illustration 3: Changing and Measuring Safety Culture: The measurement conundrum and using Quality Improvement (QI) tools

Illustration 3 focuses on some of the challenges around measurement. It identifies QI approaches best suited to incremental small step change through PDSA cycles and simple measurement, and on the other hand the complexity of measuring and evaluating safety culture which is more challenging, complicated further by organisational metrics. The data informing this illustration draws mainly from stakeholder evaluations across one site. It builds on the Facilitator's reflections about how a colleague Facilitator, who had left the organisation, worked with a challenging ward at the beginning of the project. Stakeholders across all sites from governance and frontline teams at the beginning of the project asked questions about, how would they know the patient safety collaborative initiative was making a difference?

Using QI Tools and measurement

The use of QI tools, especially the technical tools were judged by one Facilitator's insights as a simple and positive approach to measurement using PDSA cycles.

> *"Exposure to quality improvement tools promotes organisational awareness of the value and simplicity of measurement".*

> *"Having the technical skills to measure improvement (Statistical Process Control) has enabled me to measure the impact of improvement projects that I've been involved with. SPC outcome measures were used to evaluate whether any of the hard numbers, falls, pressure damage, patient satisfaction are moving significantly in a better direction".*

> *"I use PDSA methodology constantly".*

The Facilitator felt that the organisational metrics collected recognised the ward, which had initially experienced challenges with high fall rates, were now going in the right direction.

> *"Most numbers for the ward are going in the right direction due to leadership. Generally speaking the ward has progressed".*

Emotional Touchpoints with the Facilitator about the use of quality improvement tools revealed that the technical tools for measurement were relatively simple to use but that the biggest challenge was knowing what to do with the results.

"Using improvement skills in practice is secondary to managing and co-creating outcomes of the initiative".

The facilitator also recognised the dangers of using the tools without keeping at the forefront of their mind that it is people who are the focus of the activity or even that the wrong tool may take you on the wrong path.

"It's not about the tool, it is about getting people to act and discover what is happening. Weick's observation about the soldiers lost in the mountains using the wrong map to get to safety always reassures".

For this Facilitator, it was more important to focus on developing relationships and creating safe spaces for expectations to be agreed – the tools were secondary.

"In my role I need to develop relationships with staff which enables me to challenge behaviours and in doing so this has an impact and makes a difference to both staff and patients".

The complexity of facilitating change in frontline teams was recognised and the importance of developing a safety culture was considered to be about developing the relationships that focus upon understanding patterns of behaviours and expectations.

"Created a safe space to talk about expectations".

The question emerging from Claims, Concerns and Issues was not so much about measuring culture but knowing what to do with the information once measured, or the fear of opening Pandora's Box and how to manage what you find.

"Know quite a bit about how to measure safety culture – know less about what to do with info once measured".

"I'd be confident about knowing ways to measure the safety culture. However, translating that knowledge into building an effective culture is far more challenging. Culture is complex problem and yet we seem to treat it like a complicated problem i.e. we ignore context and have a tendency to want to replicate what worked in another area".

> "*We didn't use Teamwork Safety Climate Survey but have used AHCRR tool a lot 8-9 years ago on another ward. We are not using the culture tools a lot. Where we got stuck was to do with what you do with the results and how to support troubled areas. We can measure and there is variation across the organisation. We now know the areas that are troubled but what do we do with that? So what are the tools out there? How do we use them? What is the best way? Tools are easy to use but how do you use the results? Who will facilitate the discussions required for example in relation to respect? Who will facilitate the discussion on respect? What does respect look like? This is high risk activity as can open Pandora's Box and make the situation worst if walk away. The first Facilitator did a lot of work focusing on these issues but it's not a quick fix and requires dedicated intensive time. It has not been thought through and is a big ask constantly having conversations with nurses, health care support workers and others*".

> "*The early work undertaken by the first Facilitator with the ward had invested considerably in getting to know the context and the staff. On the other hand if looking at improvement rather than culture then the QI skillset had enabled measurement*".

An indicator of this change was demonstrated in the feedback given initially to the Facilitator, by a Consultant about the impact the culture change had, leading to "Some nice emails, 2/3 months into the project, from the Consultant to Facilitator 1 stating it felt like a different place (Positive). The ward culture impacted on the Consultant's own performance as things were getting better. At the end of the project the remaining Facilitator considered the ward had a '...*better culture, even if you can't measure it*".

The indicators that culture was changing were more demonstrated through the use of cultural surveys and Observations of Practice.

> "*Observation with the 2 cultural surveys, although small numbers seems to be evidence of a (positive) shift in culture and this is largely down to the ward manager/clinical leaders leadership. An advantage as a new manager is having some space to reflect on using the cultural tool*".

This reinforced for the current Facilitator the need to focus on conversations as a key approach to culture change.

"Focussing on these issues (safety culture) is increasing thinking about the importance of having the conversations. Challenging cultures and asking staff to reflect on what they do and whether this is the best way".

"Developing relationships with staff enables challenge of behaviours".

Finally, the complex spectrum of measurement and ongoing monitoring of the project was influenced by major regulatory activity. The impact of this across the organisation, the role of relationships, the complexity of the situation and the impact on governance and metrics led to curiosity about whether this pattern was experienced in other organisations.

"Global patterns of behaviour are co-created out of micro interactions and the role that imitation and habits have a large part to play in organisational cultures".

"Struggling to evaluate that we are making a difference using the metrics we are using"
"Complexity behind this – not pressure – but finding it harder".

"The organisational governance felt tightly tied in at the start as had support at the start from CEO and this was tied to Safety Committee who had focus about what the project was about. Very difficult the past 12 months as governance has disintegrated in terms of what was wanted from the project. Nothing left here – what are some of the metrics saying about the ward – isn't covered in this forum. All the normal systems that bring such a project to its conclusion do not exist. There has been no safety committee for 4 months, but will have one later- all executives have been removed across the summer and there is general confusion about what this means".

As a trust, *"All metrics show is that we are going in the wrong direction (positive is that this is political data to show that increased CQC action planning does not work)".*

"Stories are data, whilst isolated and may not be validated they provide important observations. The reality is that contexts are complex and if perception has a key impact on self-fulfilling prophecy".

"Are other trusts showing the same pattern?"

Translating the knowledge that tools provided was recognised as a complex challenge and different contexts could not be treated in the same way. The risks involved in opening Pandora's Box were also recognised, endorsing the point that what you do with the results are key. Safety culture is a concept that is difficult to measure even though there may be tangible changes experienced.

What works?

- Exposure to quality improvement tools promotes organisational awareness of the value and simplicity of measurement.
- Contexts are different and evaluation of culture change may not be the same for every context.
- Quality improvement tools enable a focus on measurement, but these are more focused on small step, tangible changes so may not pick up the subtleties of culture change.
- Stories help to demonstrate the impact of culture change.
- The Teamwork Safety Climate Survey may identify particular patients that need to be addressed, but does not guide you to how to achieve culture change.
- Having conversations and creating safe spaces for conversation enables behaviour change.
- The culture has changed perceptibly but can be mostly credited to the early facilitators approach in having the conversations and working with the local context as well as the subsequent quality of clinical leadership.

What does not work?

- Organisational metrics do not reflect the complexity of the workplace and are going in the wrong direction since organisational culture has changed.
- Teamwork Safety Climate Survey may not pick up the subtleties of culture change in frontline contexts.

In the context of acute hospitals, for the full potential of the Patient Safety Initiatives and skilled facilitation to be achieved and sustained with frontline teams strong organisational values are required that are demonstrated at every level and modelled by senior managers and leaders, buy-in from executive teams, reflected in genuine organisational commitment, integrated systems for learning, development and improvement, support and capacity building for Facilitators.

4.6. Limitations

The project had a number of limitations:

1. Application for ethical clearance coincided with the launch of the awarding body- the NHS Health Research Authority- which resulted in a time lag of three months. Whilst implementation of the patient safety collaborative initiative continued, the collection of evaluation data could not start. When ethical clearance was granted the process of achieving informed consent for some of the participating trusts was an onerous experience.

2. Engagement of frontline teams varied due to three factors, i) the busyness of the areas; ii) the timeliness of the data collection; and iii) the relationships influencing the frontline teams.

3. Minimizing the burden on frontline staff required the research team to be as flexible and sensitive as possible in collecting data. This as well as the factors outlined in 2 subsequently compromised the frequency of data collection.

4. There was a lack of PSC initiative guiding principles and a common approach across case study sites for participating organisations and teams which made clarity of purpose more difficult.

5. Not all sites used the Teamwork Safety Climate Survey making comparison difficult.

6. The normalisation tool was not widely used across sites and therefore comparison was not possible.

7. Training the facilitators in how to use Observations of Practice and Emotional Touchpoints would have strengthened confidence in the usefulness of the tools in some sites.

5. Discussion and implications

Patient safety is a collective responsibility of a range of stakeholders that work in tandem to support frontline practice where actual safety of the patient is realised. Findings and implications of this evaluation concern frontline teams, facilitators of frontline teams, quality improvement leads responsible for implementing wide scale patient safety initiatives at organisational level and the Patient Safety Collaborative Initiative itself. The evaluation set out to identify the impact of the PSC initiative on patient safety culture, quality improvement capability and leadership from the view point of what works for whom, in what context and why. This objective embraces the strategies for impacting on effective safety culture, leadership, quality improvement capability and also learning across contexts that can be

transferred by drawing on the experiences of stakeholders and from using observations of practice.

5.1. Frontline teams

A culture of patient safety is vital in frontline practice where people experience care. Findings identified four key elements that influence developing a safety culture in frontline teams. These comprise clinical leadership; team work; culture, values and meaning; safety behaviours; and the environment. The elements lend themselves to combinations of contexts and mechanisms that were influential across all participating acute sites. Manley et al. (2011) distinguish clinical and transformational leadership as a key enablers for developing effective workplace cultures at the microsystems level, particularly in implementing evidence into practice (Rycroft-Malone et al., 2004). Clinical leadership assumes a significant role of modelling safety and person centred values and enabling participation of staff and service users as a key mechanism that supports development of a safety culture in the frontline teams where clinical leaders and facilitators live these values. This endorses the relationship between the three sets of values that constitute effective workplace cultures. These values include person-centeredness, effective care (care which embrace holistic safety, learning, positive attitude to change) and ways of working (Manley et al., 2011). This is also reflected in the criteria for qualifying high performing teams and their impact on the quality of care and outcomes related to staff and patient wellbeing (West & Dawson, 2012).

Findings point to a very strong link between building relationships with patients and staff and living person centred and safety values through these relationships. This association ratifies the interrelationships between values experienced in frontline teams and cultures reflecting these values, observed in the behaviour and safety actions of staff. Clinical leadership is proposed here as pivotal in enabling effective teamwork through working with shared values and meanings that determine whether values became the norm for the way things are done (Manley et al., 2016). This has an effect on the safety behaviours of staff and how they creatively work with the work environment.

What works in relation to frontline team provides a positive focus on staff trying to develop their understanding collaboratively about what works in a way that does not take the attention to risks of errors and harm out of context from the overall and broader frontline safety culture. This is echoed in Hollnagel et al 's. (2015) emphasis on moving from Safety I to Safety II patient safety approach.

The major challenge to frontline teams is extreme busyness, and the number of initiatives they are often asked to address. Participating frontline teams that had strong safety cultures were effective in managing the environment so that it was experienced as person centred, calm and safe for both patients and staff. These values also influenced how staff organised their care with shift leads, sharing information including a grasp of safety issues they were visibly alerted to by staff who were questioning, checking and challenging regardless of status and role. These attributes are significant in managing human factors and transforming unsafe practice cultures (Scott et al., 2014; Sokol-Hessner, 2015).

Within busy contexts, staff engagement and participation in projects driven by them (bottom up approach) is crucial for sustained improvements (Auer et al., 2014). It is key that the organisation and its senior leadership through integrated support systems enable rather than derail staff efforts (Curry et al., 2015). Against this back drop, the contribution that frontline teams make and results in real change in their own area needs to be celebrated and adopted to create a feeling of being valued by their divisions and the organisation.

The positioning of key messages about bottom up change is important for the success of safety and improvement initiatives. That is, teams being empowered to make decisions for themselves informed by their clinical judgement and expertise as opposed to being told what to do by outside sources is a clear recommendation from this evaluation. It is key to have clarity about how a change initiative fits with frontline teams' daily practice and how they can authentically transform their own practice with patients through bottom up change. It is therefore important that frontline teams have detailed information about any new initiatives in a timely fashion to enable them to understand what the initiative is about, what's in it for them and how they can authentically get engaged. Envisioning the relevance and quick benefits of an initiative in real time enable participation and sustainability (Sutton et al., 2014). For example huddles were successfully implemented where the criteria were met together with principles of good clinical leadership and teamwork that facilitate collaboration to establish shared direction and structure.

Frontline teams that engage in bottom up safety and improvement initiatives benefit from protected time as their ideas grow. The support from managers and facilitators cannot be overlooked as well as champions in the team who can keep others going to sustain momentum because the "busyness" of practice can lead to paralysis of action.

The PSC initiative was taken forward by facilitators around different organisational models. Some were manager/clinical lead facilitators of their own teams while others were organisational facilitators working with specific frontline teams. Regardless of the model used, the skills and attributes of the facilitator were most influential in engaging staff in frontline teams as they took forward the PSC initiative or related activities around safety and improvement. The skills and expertise involved in facilitation of individuals, teams, organisation and systems are often implicit or invisible (Martin & Manley, 2017). Findings of the evaluation identified that it is not just the qualities and attributes that make a difference to good facilitation practice, but also the subtle strategies that enable culture change. This is particularly in respect to building relationships for engagement and modelling key values through conversations that enable development of shared meaning and direction that act as triggers for improvement led by staff.

Effective facilitation for positive safety cultures in frontline teams requires an eclectic facilitation skillset embracing quality improvement amongst other knowledge and skills. Specifically relevant include developing clarity of purpose in the moment of practice in different contexts, integrating multiple agendas and supporting staff on their journey (Martin & Manley, 2017). These are also core features of facilitators that draw on the workplace as the main resource for learning, developing and improving (Manley et al., 2009) as well as knowledge translation and mobilisation (Rycroft-Malone et al., 2002).

In order to achieve effectiveness, facilitators need to have a passion for the job and to be embedded with front line teams so they have a good understanding of frontline issues, relationships and skillsets and the know how to get the best out of the team. Such facilitators help frontline teams integrate several agendas at once. Facilitators need the skillset and competences of clinical facilitation and transformational leadership, self-awareness and emotional resilience to be effective in their role. (Day, 2014). Failure to invest in the development of this skill set undermines the effectiveness of the facilitator and the potential for sustainable change and transformation in frontline teams (Martin & Manley, 2017).

Confidence from support and practice is required in using a wide range of quality improvement tools and measures. This enables facilitators to use their judgement effectively when working with frontline teams about what works best to reach the desired outcomes (Manley & Titchen, 2017). The tools used for the evaluation of the PSC initiative were recognised as complimentary to quality improvement tools in most of the participating sites. While one site

was already well versed with using practice based evaluation tools, the other sites were introduced to them through the evaluation methods. In particular, claims concerns and issues (Guba & Lincoln, 1989), a tool that can develop an open and transparent culture where staff are valued and heard; and observations of practice (Royal College of Nursing, 2007), a powerful tool for experiencing the workplace culture through different lenses were largely complementary to the PSC initiative. The observations of practice tool bears potential for enabling celebration and the identification of dissonance between espoused and lived values, including safety.

Nevertheless, facilitators need a well-developed support network to enable them pursue the difficult role of supporting frontline teams and to optimise the impact of their facilitation role. Organisations need to invest in the development of critical companions (Titchen, 2004) and workplace coaches at all levels of the system as well as support intra and inter organisationally communities of practice (Lave & Wenger, 1998) to facilitate capacity and capability.

5.2.   Facilitators at organisational level

The evaluation focus on frontline teams and their organisational support accentuates the potential to strengthen organisational learning for safety and other improvement purposes. Otherwise, there is a danger that the work frontline teams undertake is seen as isolated projects that are not sustainable. Where a strong commitment to integrated systems exists, organisational facilitators have a responsibility to provide organisational awareness of initiatives such as the PSC initiative and to make sure that a supportive infrastructure is in place at all levels across the organisation to enable building capacity and capability for initiatives.

Where there is a strong commitment to integrated systems, organisational facilitators have a responsibility to provide organisational awareness of initiatives such as the PSC initiative and to ensure that a supportive infrastructure is in place across the organisation at all levels to build capacity and capability (Kim et al., 2015). The capacity of staff with facilitation skills can be grown into a coordinated resource for organisational learning through adopting a strong organisational facilitation network that feeds into single integrated organisational systems that focus on desegregating learning, development and improvement (Manley et al., 2016; Martin & Manley, 2017). Case study 1 illustrates the vision of what is possible, articulated in one of the participating sites. The same vision was implicitly practised, but not explicitly articulated in one other site while it was underdeveloped in two of the participating sites for a range of complex reasons outside of the control of the organisational facilitators.

Taking a whole systems approach is recognised as a key enabler for optimising organisational support for patient safety (Dixon-Woods & Pronovost, 2016), as is the leadership values actions of senior leadership and management and the support of executive boards (Tingle, 2014). Integrated systems that embrace governance, learning, development and improvement enable organisations to profile and value the insights and learning gained from such projects as the PSC initiative and subsequently embed learning across the organisation and system. Authentic engagement with improvement initiatives require facilitators at organisational level to be conspicuous to frontline teams and their facilitators to acquaint themselves with the challenges of frontline practice and model the way for authentic engagement with frontline safety culture innovations (Mcfadden et al., 2014; Day, 2014). For instance regular huddle meetings simplify supporting frontline teams and facilitators at all levels of the organisation.

Findings also identified the importance of being realistic about what is achievable in light of timescales instead of expecting divisions to take on a number of projects at once. Project fatigue may lead to failure which ultimately undermines organisational effectiveness and the ability to improve quality in a sustainable way. It also negatively affects staff morale. It is crucial to demonstrate collective commitment to understanding what works in reducing risk and harm and share this widely, with a focus on enabling learning about enhancing patient safety and continuous quality improvement. Hollnagel et al.'s (2015) work illustrates a win-win scenario that involves supporting teams and organisations join the dots between leading for excellence, safety culture and quality improvement. Using a framework of appreciative inquiry such as learning from excellence may enable achievement of intended objectives.

The evaluation endorses the need for organisations to invest in the development of transformational clinical leadership skills at all levels of the NHS Career framework in order to develop the confidence, capacity and capability for sustainable bottom up change and improvement.

5.3. PSC Initiative team

The PSC initiative was a catalyst that provided a pivotal opportunity for four Acute Trusts to be supported in their journey towards developing and embedding a safety culture across ten frontline teams. The evaluation of the PSC initiative has enabled distillation of collective learning across sites and development of insights about what works and what does not work well. The project took place at a time of growing national momentum around safety practice and a move towards understanding and build on what works consistently using appreciative approaches such as the Safety II Model (Hollnagel et al., 2015) and learning from excellence

(Plunkett, 2015). The evaluation approach endorses the same focus of understanding contexts and mechanisms that achieve different outcomes. Learning from the PSC initiative therefore not only informs organisations, but also other contexts where roll-out of lessons about building safety cultures will enable ongoing testing of the theory generated.

The PSC initiative enabled various journeys to commence by providing organisational support with using the Teamwork Safety Climate Survey (Sexton et al., 2006). Due to other priorities, not all organisations could capitalise on the opportunity to embed the tool in their IT systems. There was a knock- on effect to how the tool could be used as well doubts whether its use, analysis and presentation could be in a form that would be useful to frontline teams. Also, facilitators would have benefitted from help with understanding the meaning of the findings and how to use these insights. For the future, organisational commitment to embedding the tool in IT systems may need strengthening and support provided with additional analysis of data metrics. For example, building tools such as Teamwork Safety Climate Survey into action learning for the facilitators and the teams to enable them see how their practice evolves. This could be supported by a web of change model to chart progress so that areas that still require targeted development are visually apparent. This approach may be easier than using the Normalisation tool (May et al., 2009) that was advocated by the evaluation team but used by only one site.

Using standard agreed measurement tools across all sites would enable effective comparisons of specific tangible initiatives such as safety huddles. The findings demonstrate that the Huddle model is particularly powerful in enabling frontline teams to focus on safety issues in real time. Huddles may facilitate identifying what works, finding solutions collectively and learning how to improve practice for the benefit of staff and patient wellbeing.

The Yorks and Humber experience was shared with participating teams through a visit from the Yorks and Humber team to a presentation day. All sites were offered the opportunity to visit Y&HIA and see the model being used, including seeing a facilitator sharing the results of the climate survey on a ward in Leeds Hospital. One of the sites chose to attend but the other sites did not take advantage of this opportunity.

The PSC initiative provided action learning support to Trust facilitators. This was valued and positively evaluated as a supportive learning experience, enabled by an excellent facilitator. Workload pressures and challenges over the duration of the project did not enable everyone that would have liked to be involved. Whilst the model is an effective approach, the establishment of local communities of practice could build on what has been achieved and

also enable greater participation by a growing number of skilled facilitators. Facilitators are key to supporting frontline teams to embed initiatives as well as promoting effective organisational learning. Clear guidance about how they will be supported in terms of their own development within their own organisation is therefore important. Critical to this is the time and space to be effective in their facilitation role.

6. Conclusion and recommendations

This realist evaluation set out to answer the question "what works for whom and why when embedding safety culture and growing clinical leadership and quality improvement capacity and capability in frontline teams?" The focus was a regional Patient Safety Collaborative Initiative (PSC initiative) comprising support with quality improvement tools and learning opportunities, use of the Teamwork Safety Climate Survey and action learning for facilitators.

The success of the PSC initiative in understanding what works and why when developing and embedding safety culture, QI and leadership capability, is interdependent with three other elements; i) the frontline teams themselves; ii) the facilitators supporting the frontline teams and, iii) the organisational characteristics in which the facilitators are working with frontline teams . Other tools used by the evaluation team such as Claims, Concerns and Issues and Observations of Practice have been recognised as supporting the PSC's purpose of developing person-centred safety cultures. The PSC initiative was a catalytic in enabling organisations to become aware of the key factors strategically that need to be addressed if a whole systems approach to supporting patient safety at the frontline is to be achieved and to enable organisational learning. The focus on frontline teams and their safety culture had the biggest impact around huddles and enabling frontline teams to feel valued and empowered as microsystems from this bottom up initiative. Learning from the evaluation to inform future roll outs of the PSC initiative in other contexts will enable further testing of the insights gleaned.

The most important key messages from this evaluation are:

Embedding a safety culture in frontline teams

♦ The most influential factor impacting the development and embedding of a safety culture in frontline teams is the quality of clinical leadership

♦ Safety cultures are recognised by a set of values that are articulated, embedded, integrated and observed in action,-i) being person centred, ii) focus on holistic safety; and iii) ways of working that embrace learning

♦ Quality clinical transformational leadership achieves and sustains safety cultures in frontline teams through enabling: effective teamwork, shared direction and values, safety behaviours and a safe environment.

♦ Transformational leadership enables a participative collaborate and inclusive approach for working with staff and service users and results in staff and service user empowerment and an approach to improvement driven by asking what works?

♦ Observations of Practice is a powerful tool for engaging staff in celebrating excellence and recognising dissonances between values and actions.

♦ A successfully implemented safety huddle is driven by frontline teams and embraces both patient and staff safety promoting interdisciplinary collaboration and effective teamwork.

Facilitation of a Safety Culture in Frontline Teams

♦ A wide range of skills are needed for learning, improvement and development but most essential is enabling engagement, participation and meaning with all key stakeholders.

♦ Organisational facilitators are an important resource for supporting frontline teams and working together to achieve organisational systems for learning, development, improvement and innovation.

♦ Facilitators need organisational support to capitalise on organisational learning and working together to sustain improvement.

Organisations committed to supporting frontline teams develop a safety culture

♦ Organisations build capacity across the system for quality improvement and innovation so that organisational intelligence and capability is enhanced.

♦ Organisations invest in the role and support of facilitators to maintain systems for learning, development, improvement and innovation

♦ Organisations recognise their role is to support clinical leadership and front line teams as the most essential focus for achieving and sustaining safe, person-centred and effective workplace cultures.

♦ Organisations use all developmental opportunities provided with frontline teams to inform organisational learning, working in balance to prevent project fatigue on individual teams.

♦ Organisations embrace programs like the Patient Safety Initiative as a catalyst to facilitate focus on frontline teams and their safety culture with the biggest impact around Huddles – frontline teams feel valued and empowered as microsystems from this bottom up initiative.

Recommendations

Commissioners rolling out PSC initiatives across the system

- Ensure that PSC initiative schemes are clearly linked with Sustainable Transformation Plans to improve the quality of services for the regional locality and interconnected with the broader national drive for improvement
- Invest in the infrastructure and staffing resource to ensure that there are sufficiently skilled and competent systems leaders with the QI and culture change skill set to facilitate complex change at all levels of the system.
- Provide clear guidance regarding the QI methodology (ensuring this embraces soft and learning skills as well as the technical tools) used across the system to promote clarity, focus, and continuity of approach
- Ensure that the IT system can provide and support the dashboard metrics and reporting infrastructure required to offer rapid reporting on safety and quality metrics to frontline teams.
- Commission a wider integrative impact report across AHSN regions to demonstrate the collective power and impact of what works best to support bottom up change for quality improvement and patient safety across the system. This approach could help provide a resource bank of useful case studies and stories that will give organisations the confidence to invest in similar initiatives locally.

Facilitators at Organisational Level

- Agree and embed an interconnected strategy for the implementation of quality improvement and associated initiatives such as Huddles across all levels of the organisation with a focus on patient safety themes linked to key priorities for improving standards of care and patient/staff experience and wellbeing

- Enable the organisation to understand the issues and challenges associated with clinical roles at the frontline of practice, modelling the way with facilitating improvement activities in real time

- Be alert to project overload by having a clear organisational plan for measured improvement projects that are realistic and achievable

- Adopt an appreciative inquiry/learning from excellence model and approach to embedding improvements in practice at all levels of the organisation

- Ensure supportive and governance infrastructure is in place across the organisation at all levels to build quality improvement and safety capacity and capability through

- An organisational coach/critical companion network for both mutual and organisational learning.

- Invest in the development of transformational clinical leadership skills at all levels of the NHS Career framework in order to develop the confidence, capacity and capability for sustainable bottom up change and improvement

- Demonstrate collective commitment to understanding what works in relation to risk and harm reduction and share this widely to promote organisational awareness

- through regular and varied reporting mechanisms for the frontline and back with a focus on enabling learning for continuous patient safety and quality improvements

Facilitators of frontline teams

- Formally develop the facilitation skills required to enable the workplace to be used as the main resource for learning development, and improvement from individual and team level through to organisational systems wide

- Use Observations of Practice as a culture tool to enable dissonances to be identified and acted on as well as areas for celebration to be recognised

- Meet regularly with other facilitators in the network to share experiences, best practice and challenges to offer mutual support and critical companionship

- Take the opportunity to visit other sites that are engaged in quality improvement and patient safety initiatives to learn how it has been done elsewhere

- Use quality improvement methodology together with facilitation of learning, reflection and engagement to helps teams across an organisation develop their collective know how, competence and confidence in using different measurement tools and methods

- Provide teams with relevant information to enable informed decisions about engaging in improvement programmes/ projects.

- Support safety and quality champions within teams to build capacity and capability across teams for collective impact.

- Support teams to celebrate and share their successes and key learning through implementation of safety/quality initiatives including Huddles

- Be visible and embedded with front line teams engaging in quality improvement and patient safety projects to offer continuity of high challenge and high support during the journey.

- Support front line teams to critically reflect on their development and share their experiences with others across the organisation creatively through social media, organisational reports, newsletters and webpage case studies.

- Support teams to overcome the busyness of practice and stay focused to maximise opportunities for team learning and successful project outcomes and impacts.

7. References

Austin, J., & Hickey, A. (2007). Autoethnography and teacher development. The International Journal of Interdisciplinary Social Sciences, 2, 1-8.

Bate, P., & Robert, G. (2007). Toward more user-centric OD: lessons from the field of experience-based design and a case study. The Journal of Applied Behavioral Science, 43(1), 41-66.

Berwick, D. M. (2008). The science of improvement. Jama, 299(10), 1182-1184.

Curry, L. A., Linnander, E. L., Brewster, A. L., Ting, H., Krumholz, H. M., & Bradley, E. H. (2015). Organizational culture change in US hospitals: a mixed methods longitudinal intervention study. Implementation Science, 10(1), 29.

Day, H. (2014). Engaging staff to deliver compassionate care and reduce harm. British Journal of Nursing, 23(18).

Department of Veterans Affairs. (2000). Safety huddle retrieved from http://www.tampavaref.org/safe-patient-handling/safetyhuddle_021110.pdf

Dewar B, Mackay R (2009) Use of emotional touchpoints as a method of tapping into the experience of receiving compassionate care in a hospital setting. Journal of Research in Nursing, 15(1) 29–41.

Dixon-Woods, M., & Pronovost, P. J. (2016). Patient safety and the problem of many hands. BMJ Qual Saf, bmjqs-2016.

Gabbay, J., le May, A., Connell, C., & Klein, J. H. (2014). Skilled for improvement? Learning communities and the skills needed to improve care: an evaluative service development. The Health Foundation, London.

Garbett, R., Hardy, S., Manley, K., Titchen, A., & Mccormack, B. (2007). Developing a qualitative approach to 360-degree feedback to aid understanding and development of clinical expertise. Journal of nursing management, 15(3), 342-347.

Greenhalgh, T., Wong, G., Jagosh, J., Greenhalgh, J., Manzano, A., Westhorp, G., & Pawson, R. (2015). Protocol—the RAMESES II study: developing guidance and reporting standards for realist evaluation. BMJ open, 5(8), e008567.

Guba, E. G. and Lincoln, Y. S., (1989) Fourth Generation Evaluation. Newbury Park, CA: Sage Publications.

Hollnagel, E., Wears, R. L., & Braithwaite, J. (2015). From Safety-I to Safety-II: a white paper. The Resilient Health Care Net: Published simultaneously by the University of Southern Denmark, University of Florida, USA, and Macquarie University, Australia.

Jackson, C; Manley K, Martin, A; Wright, T (2015) Continuing Professional Development (CPD) for quality care: context, mechanisms, outcome and impact   Education Outcomes Framework Round 2 Funding. Final Report January 2015 England Centre for Practice ISBN 978-1-909067-39-4.

Kim, L., Lyder, C. H., McNeese-Smith, D., Leach, L. S., & Needleman, J. (2015). Defining attributes of patient safety through a concept analysis. Journal of advanced nursing, 71(11), 2490-2503.

Lave, J., & Wenger, E. (1998). Communities of practice. Retrieved from http://valenciacollege.edu/faculty/development/tla/documents/CommunityofPractice.pdf

Manley, K., Titchen, A., & Hardy, S. (2009). Work-based learning in the context of contemporary health care education and practice: A concept analysis. Practice Development in Health Care, 8(2), 87-127.

Manley, K., & Titchen, A. (2017). Facilitation skills: the catalyst for increased effectiveness in consultant practice and clinical systems leadership. Educational Action Research, 25(2), 256-279.

Manley, K., Martin, A., Jackson, C., & Wright, T. (2016). Using systems thinking to identify workforce enablers for a whole systems approach to urgent and emergency care delivery: A multiple case study. BMC Health Services Research, 16(1), 368.

Martin, A., & Manley, K. (2017). Developing standards for an integrated approach to workplace facilitation for interprofessional teams in health and social care contexts: a Delphi study. Journal of Interprofessional Care, 1-11.

Manley, K., Sanders, K., Cardiff, S., & Webster, J. (2011). Effective workplace culture: the attributes, enabling factors and consequences of a new concept. International Practice Development Journal, 1(2).

May, C. R., Mair, F., Finch, T., MacFarlane, A., Dowrick, C., Treweek, S., ... & Murray, E. (2009). Development of a theory of implementation and integration: Normalization Process Theory. Implementation Science, 4(1), 29.

McFadden, K. L., Stock, G. N., & Gowen III, C. R. (2015). Leadership, safety climate, and continuous quality improvement: impact on process quality and patient safety. Health care management review, 40(1), 24-34.

Nieva, V. F., & Sorra, J. (2003). Safety culture assessment: a tool for improving patient safety in healthcare organizations. Quality and Safety in Health Care, 12(suppl 2), ii17-ii23.

Nelson, E. C., Batalden, P. B., Huber, T. P., Mohr, J. J., Godfrey, M. M., Headrick, L. A., & Wasson, J. H. (2002). Microsystems in health care: Part 1. Learning from high-performing front-line clinical units. The Joint Commission journal on quality improvement, 28(9), 472-493.

Pawson, R., Greenhalgh, T., Harvey, G., & Walshe, K. (2004). Realist synthesis: an introduction. Manchester: ESRC Research Methods Programme, University of Manchester

Pawson, R. & Tilley, N. (2004) Realistic Evaluation. Retrieved from http://www.communitymatters.com.au/RE_chapter.pdf

Plesk, P. E., & Wilson, T. (2001). Complexity, leadership, and management in healthcare organizations. BMJ, 323(7315), 746-749.

Plunkett, A. (2015). Learning from excellence: a tale of two SIRIs. NHS England. Retrieved from https://www.england.nhs.uk/signuptosafety/2015/11/26/adrian-plunkett/

RCN & Cambridge University Hospitals (2007) Observations of Practice Research Protocol. RCN Workplace Resources for Practice Development. RCN London

Rycroft-Malone, J., Harvey, G., Seers, K., Kitson, A., McCormack, B., & Titchen, A. (2004). An exploration of the factors that influence the implementation of evidence into practice. Journal of Clinical Nursing, 13(8), 913–924.

Rycroft-Malone, J., Kitson, A., Harvey, G., McCormack, B., Seers, K., Titchen, A., & Estabrooks, C. (2002). Ingredients for change: Revisiting a conceptual framework. Quality and Safety in Health Care, 11(2), 174–180.

Sexton, J. B., Helmreich, R. L., Neilands, T. B., Rowan, K., Vella, K., Boyden, J., ... & Thomas, E. J. (2006). The Safety Attitudes Questionnaire: psychometric properties, benchmarking data, and emerging research. BMC health services research, 6(1), 44.

Scott, I., Phelps, G., & Dalton, S. (2014). Arise the systems physician. Internal medicine journal, 44(12a), 1251-1256.

Sokol-Hessner, L., Folcarelli, P. H., & Sands, K. E. (2015). Emotional harm from disrespect: the neglected preventable harm. BMJ quality & safety, bmjqs-2015.

Sutton, D., Windsor, J., & Husk, J. (2014). A care bundle approach to falls prevention. Nursing times, 110(20), 21-23.

Tingle, J. (2014). Patient safety: a view from across The Pond. British Journal of Nursing, 23(7), 396-397.

Titchen, A. (2004). Helping relationships for practice development: critical companionship. Practice development in nursing, 148-174.

Weiner, B. J. (2009). A theory of organizational readiness for change. *Implementation science*, *4*(1), 67.

West, M., & Dawson, J. (2012). Employee engagement and NHS performance. The King's Fund, 1, 23.

Whitney, D., & Cooperrider, D. (2011). *Appreciative inquiry: A positive revolution in change* (1st ed). San Francisco, SF: Berrett-Koehler Publishers, Inc.

Wong, G., Westhorp, G., Greenhalgh, J., Manzano, A., Jagosh, J., & Greenhalgh, T. (2017). Quality and reporting standards, resources, training materials and information for realist evaluation: the RAMESES II project. Health Services and Delivery Research, 5(28).

Yin, R. K. (2013). Case study research: Design and methods. 5th ed. California. Sage publications.

Appendix 1: Planned Gantt Chart data collection – start delayed until August 2017

Timeframe	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	June 2016	July	Aug	Sept	Oct	Nov	Dec	Jan 2017	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Site Facilitators																			
Action learning sets	X			X					X				X					X	
Hopes Fears and Expectations		X												X					
Claims Concerns and Issues		X		X		X		X		X		X		X					
360 degree feedback		X	X											X	X				
Cognitive mapping (pre and post)		X												X					
Reflective review														X					
Emotional touch points (around QI pyramid)				X		X				X				X					
Frontline Teams																			
Texas safety climate tool		X						X						X					
Claims Concerns and Issues		X			X			X			X			X					
Observations of practice				X		X		X		X		X		X					
Normalisation questionnaire							X							X					
Other Stakeholders																			
Claims, Concerns and Issues *Safety Governance Executives*		X		X				X		X				X					
All participants																			
Consensus conference									X										

Appendix 2: What works, why it works and for whom it works – insights from the literature

Context	Mechanism -why	Outcome	For whom
Frontline teams and safety culture			
L1. Contexts where individuals (clinical leaders & team members) have specific personal characteristics and values and beliefs that intentionally guide their actions	L1a • Use compassionate presence • Are committed to engagement with others • Truly listen to others communicating without discrimination	• Establish and maintain caring responsive trusting therapeutic relations • Enable staff to speak up • Advocacy for patients	Patients Staff
	L1b • Address and sign up to safety values; • Comply with safety policies, protocols and processes; • Follow up corrective action; • Challenge established norms, power structures and decisions with safety implications • Collaborate across the system	• Increased accountability for own practice • Improved compliance, • increased safety awareness • Staff speaking up • Promote learning across system	Staff Patients Organisation and system
	L1c • recognise own assumptions to develop awareness of own interventions, • participate in practice based learning and show a readiness to change	• increased accountability for own practice; • continuous learning and creative problem solving; • behaviour change based on learning,	Staff Patients
L2 Team contexts that value patient participation, engagement and person centredness	• Use approaches that share and communicate information with patients, families and staff, • Encourage and engage patients in care as equal partners	• Achieve staff and patient empowerment	Staff Patients
L3 Teams that hold values about clinical and practical expertise, staff autonomy and involvement in safety and quality improvement	• Use approaches that engage and involve staff to create ownership for safe practice	• Achieve high level/improved staff engagement, • improved staff morale, satisfactions and staff outcomes	Staff Patients

Context	Mechanism -why	Outcome	For whom
Frontline teams and safety culture			
L4 Teams who possess the knowhow and know why of engaging staff	• Use approaches that involve and engage staff in identifying concerns, determining and implementing interventions; and creating ownership for safe practice	• Achieve continued improved staff engagement, • Job satisfaction • Staff motivated in patient safety and quality improvement.	Staff Patients
L5 Teams with a safety culture/climate where it is psychologically safe to recognise and report concerns and errors, is non-blame, open and transparent	• Staff recognise & engage in frontline patient safety issues/checking to prevent harm, • Staff initiate patient safety awareness, improvement and are accountable, • Staff prioritise & promote safety integrating quality	• Staff feel supported, • Reduced fear of reporting • Decreased risk of harm, errors and preventable adverse events	Staff Patients
L6 Teams with access to effective co-ordination across settings and access to specialised services and senior clinical input and good management	• Provide timely care and information to patients; • Provide rapid triage, diagnosis and treatment; • Advanced warning of patient arrivals and protected spaces; • Good planning and care co-ordination; and appropriate discharge	• Achieve good outcomes for patients with timely management, transfers and transitions and reduced risks; • Good outcomes for staff such as less unplanned work	Patients Organisations System
L7 Team with access to electronic records and e-prescribing	• using medicines management approach	• Reduce risks to patients	Patients Staff
L8 Teams with meaningful measures and indicators for improvement, shared data, experience and expertise	• Collect, analyse and use data, metrics, auditing, benchmarking • Leadership focuses on safety dashboard, ownership of data to improve	• Improvements in patient safety culture at both the microsystems and organisational level	Patients Team Organisation
	• Focus on continuous learning, development and improvement will achieve	• Improved patient safety, risk mitigation, • Improved outcomes and high quality care	Patients Team Organisation

Context	Mechanism -why	Outcome	For whom
Frontline teams and safety culture			
L9 Teams with a multi-professional collaborative approach, effective team working, defined roles expectations and responsibilities	• Use interdisciplinary approaches to sharing, celebrating best practice, • Work collaboratively and supportively • Have strong clinical decision making and management of risks.	• High performing teams, improved team performance and improved communication between healthcare staff	Staff Team Patients
L10Teams with a standardised approach to handovers	• use a structured approach to handover that communicates across disciplines, • accurately and transparently reports • Pays sufficient attention to detail analyses of errors, harm, incidents and adverse events taking remedial actions	• More reliable process of communication	Staff Patients
L11 Team contexts that value patient safety learning, improvement and incentivises safety and quality improvement	• Provide protected time and opportunities for reflection conversations , • mentoring and learning will use approaches that enable peer-peer diffusion; shared learning and sharing knowledge, experience, good practice, creatively and meaning	• Continued shared learning, improvement, innovation • Increased expertise and safety knowledge	Staff Team Organisation
Patient safety initiative used in context of acute trusts			
L12 Organisational contexts characterised by a whole systems approach highly reliable integrated systems and safety nets to prevent harm and errors	• Collaborate across whole systems to promote learning • Focus on systems problem solving • Focus on system thinking vs individual competence	• Community partnerships • Transformation of cultures and sustainable change • Reduced risks of incidents/errors • Reduced harm • Organisational learning	Patients Staff Organisation System
L13 Organisational cultures with Safety Non blame approach that enables support for improvement,	• Concerns are voiced; • Non-punitive response to errors; • Intolerance of unsafe behaviours;	• Improved safety culture, • Organisational learning	Staff Organisation Patients

Context	Mechanism -why	Outcome	For whom
Frontline teams and safety culture			
communication, information sharing and listening and has a focus on social action and social media	- Learning communities for sharing, reflecting and implementing change - Capacity building for change/improvement expertise - Organisation-wide improvement programmes, safety projects and multifaceted approaches - Champions & improvement teams to provide facilitation, support & expertise Innovative & varied learning approaches - Innovations in organisation to improve and address safety e.g. rapid response teams for deteriorating patients/ward based pharmacy/specialist teams/walk around - Medical emergency teams with clear criteria - Engaging and mobilising people & support - Patient & service user, staff involvement,	- Reduced organisational stress, improved resilience, - Improved quality, - More engaged and responsive staff Reduction in disruptive behaviours, - Improved staff retention and turnover	
L14 Organisations characterised by organisational readiness reflected in non-hierarchical, inclusive bottom up driven learning organisations, adaptive capacity with shared and supportive, inclusive and involved senior leadership/ management committed to safety, quality and improvement	- Genuine interest and presence of leaders; - collaboration, teamwork and horizontal accountability; - addressing organisational barriers; - implementing organisational systems that provide incentives, recognise and celebrate; report, monitor and respond to harms; - respond compassionately and simply to complaints; - staff training and education; and educating patients about harm.	- Shared accountability/responsibility by all staff; - Improved leadership communication, - organisational learning, - reduced organisational stress; - improved resilience and - positive impact from targeted interventions	Staff Organisation

Context	Mechanism -why	Outcome	For whom
Frontline teams and safety culture			
L15 Organisations with a single point of access to safety protocols, standards and a classification system of indicators, measures and metrics to inform monitoring, reporting, benchmarking, audit and evaluation	• Implement protocols drawing on local innovation • Use different types of evidence and multiple types of data to investigate, monitor and improve safety across the whole system •	• reduction in incidents, errors, avoidable harms, omissions, delays, waiting times, lengths of stay • Improved ratings • improved compliance and quality	
L16 Organisations using resources to address the biggest risks and to provide appropriate infrastructure support and education	• focus on achieving feedback about the changes from incidents and errors	• can achieve cost savings	

Appendix 3: Synthesised insights from frontline teams across four acute hospital provider organisations and the literature about what works, why it works for whom it works

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Literature Theme
Context: Frontline teams and safety culture							
1. Clinical leadership in frontline teams that models respectful relationships, person centred values and actively listens to and values patient and service user expertise	Consistently enables and endorses person centred respectful relationships between all staff members and with service users with a 'can-do' attitude, and attention given to both patient and staff wellbeing. Service users and staff feel heard and listened to and become empowered	All staff groups in clinical setting - their wellbeing and safety Service users & stakeholders present in clinical setting as focus is on the person Improvement in service users experiences & safety Team priorities	S1.1	S2.2 S2.4	S3a.2	S4.P1.3 S4.P2.2 S4.P3.1 S4.P3.3 S4.P4.1 S4.P4.2	L1a L2 L4
2. Team working with consistent good leadership and team members willingness to engage and collaborate for improvement	Team members have shared purpose and plan, work to same purpose collaborate and help each other and share responsibilities High support high challenge for effective team behaviours to enable everyone to flourish Team dynamics have an impact on patient outcomes	Team members and their beneficiaries i.e. service users and other teams benefit from clear expectations and role clarity Focused team priorities and plan are achieved	S1.1 S1.2	S2.1 S2.18	S3a.1	S4.P1.1 S4.P1.2 S4.P2.1 S4.P2.2 S4.P3.1 S4.P3.3 S4.P4.2	L1a L2 L3 L9
3. Staff are accessible to patients and relatives at all times through being visible & present with prompt responses to call bells endorsed by key messages on posters in clinical area	Patients feel safe when they see staff in their bays/location and know they can call for help and that their call bell will be responded to promptly. Also poster messages endorse arms-length support	Patients can attract attention and so feel safe		S2.5	S3a5		
4. Supporting each other, questioning, challenging and checking is evident in everyday workplace culture regardless of status and role	Everybody is encouraged to ask questions including students and junior staff Asking questions and checking feels safe and the norm – a no blame culture enables errors and harms to be picked up and acted on promptly Confidence about challenging others across professional boundaries means that human factors are addressed regardless of status Recognising the role of human factors in safety	All staff groups, including students and junior staff are acting on safety and human factors and ask questions despite status/profession Patient safety is the beneficiary	.S1.1. S1.2 S1.3 S1.5 S1. 6	S2.3	S3a.3	S4.P1.1 S4.P1.2 S4.P1.4 S4.P4.1 S4.P4.2	L1b L5
5. Opportunities to understand and know what works in relation to reducing risks and	Shared understanding developed based on evidence base and sense of meaning. Risks are identified, shared and acted on	Patient and visitor safety Patient confidentiality Staff understanding and knowledge leading to safe practice	S1.2 S1.3 S1.4 S1.5	S2.9 S2.11	S3a.4 S3b14 S3b15	S4.P1.1 S4.P1.4 S4.P2.3 S4.P3.3	L1c L4 L11

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Literature Theme
Context: Frontline teams and safety culture							
harm driven by questions about how practice can be improved	Safety issues around medications, notes, drug cupboard and hand washing are recognised and acted on promptly Potential for deterioration recognised promptly where risks assessed Promotes learning in action from cases with the central question- how can we improve our practice? When do concerns become risks? Impossible to be proactive because of department pressures even though dedicated to improvement		S1.6			S4.P4.1 S4.P4.3	
6. Maintaining a quiet, calm & safe environment even when extremely busy with everyone including visitors implementing infection prevention and control approaches	All staff attend promptly to buzzers and door bells and help each other with creating a feeling of calm and stillness Staff focus on reducing noise at night Staff adhere to infection prevention and control and hand washing policies Staff maintain medication trolley safety and medication administration Staff work creatively with limited space within the environment	Environment feels calm and safe by staff patients and others	S1.5	S2.6 S2.7 S2.9	S3a5	S4.P4.3	L1b
7. Paying attention to detail in record keeping and using strategies to prevent notes from different mothers and (babies)/patients from being mixed up in busy departments	Strategies for managing interruption to ensure notes are confidential and patients safe Ensuring that detailed notes are associated with the right patient and enables continuity and safety of care from others	Women and their babies are safe Patients and service users and information about them is kept safe Multidisciplinary team are aware of importance of confidentiality and potential for error	S1.2 S1.5 S1.6	S2.10	S3a.6		L1b
8. Structured handover, tools and methods for quality improvement support effective interdisciplinary team working and decision making for safe practice	Decision sheets at handover and during board rounds promote effective team communication, identifies vulnerable patients, clarity of action and responsibilities to maximise patient safety	Patients and service users Multidisciplinary team	S1.3 S1.6	S2.8		S4.P1.4 S4.P2.3 S4.P3.2	L10

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Lit
Context: Senior facilitators/leaders working with frontline teams to embed safety culture, QI in frontline teams							
1. Facilitators of teams confident in their role and behaviours as transformational leaders when supporting frontline teams to embed a safety culture and quality improvement	-Transformational leaders make time to listen to staff and explain, so staff feel supported, this contributes to staff wellbeing. -Transformational leaders are approachable, visible and present so it is easy for staff to ask questions, report adverse events and enable learning which enhances safety -Transformational leaders stimulate improvement and innovation activity through welcoming feedback and engaging all stakeholders and inspiring others. Are compassionate and fair and this generates trust from staff Take others with them Transformational leaders role model good leadership, best practice and values Transformational leaders remove the need to micro-manage teams and the "permission" to engage in practice improvement at the front line Transformational leaders demonstrate passion and commitment for practice improvement at the front line Transformational leaders are resilient and are able to overcome obstacles to facilitate learning	Safe women and babies Safe staff Staff wellbeing Staff empowerment and inspiration	S1.7 S1.8 S1.10	S2.14 S2.15 S2.16	S3a7 S3b13 S3b17 S3b16	S4.P1.6 S4.P2.4 S4.P2.5 S4.P3.5 S4.P3.7 S4.P3.8 S4.P3.9 S4.P4.4 S4.P4.5 S4.P4.6 S4.P4.7 S4.P4.8 S4.P4.9	L1 L3 L4

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Lit
Context: Senior facilitators/leaders working with frontline teams to embed safety culture, QI in frontline teams							
	about what works and does not work in front line teams Transformational leaders are aware of own competence and works within this Transformational leaders takes responsibility for their own actions and decisions Transformational leaders are aware of the impact of their own behaviour on others (emotional intelligence)						
2. Facilitators improve workplace cultures from having local knowledge, knowing the context and using their skills in building relationships, having conversations and enabling staff to reflect and engage through exploring and co-creating meaning and expectations for empowerment and collective learning	Culture impacts on staff and service users. Challenge cultures through creating safe space for conversations and reflections talking about expectations, thinking about how staff do things, and whether this is the best way to approach things. Being able to challenge behaviours through having built relationships Exploring meaning enables shared purpose, and expectations to be understood and contributes to change Shared meaning and exploration of behaviour achieves changes through empowerment and collective learning	All staff as the culture impacts on all staff and also service users subsequently		S2.13 S2.12 S2.15 S2.16 S2.17 S2.18..		S4.P1.1. S4.P1.9	L3 L4 Example of consultant story

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Lit
Context: Senior facilitators/leaders working with frontline teams to embed safety culture, QI in frontline teams							
	Have the skills to engage staff and enable them to participate in change and co-create meaning in the moment of practice Staff are engaged and involved in the collective decision. Enables the teams to work together for a common reason It is all about people. If you support and empower people, then safety will follow. Too often we over regulate, disempower and hence lose their interest. Engaging staff and enabling ideas to become embedded and sustained in extremely busy environments, staff sickness and staff shortage is very challenging						
3. Facilitators of teams model active engagement of service users, active listening and valuing of what matters to them and their suggestions when developing the service	Users of the service have experiences (good and bad) that if heard and acted on can improve the service for others The service user is placed at the centre of the service and lessons are learnt from what can be improved Recognize barriers to effective communication and modify their own approach to achieve active engagement	Mothers and service users Facilitators Front line teams Service users Patients	S1.9	S2.16	S3a8	S4.P3.8	L2 L3 L4

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Lit
Context: Senior facilitators/leaders working with frontline teams to embed safety culture, QI in frontline teams							
	Demonstrate the ability to influence senior people engaging support for an idea or initiative Use structured communication tools to provide constructive feedback and facilitate effective team working						
4. Facilitators have the skillset (experience, and clinical insight) to draw on a range of different approaches to facilitate teams with continuous improvement and the development of a safety culture. This includes engaging teams, developing relationships, developing shared meanings, creating a learning and safety culture, using QI tools, addressing safety issues, being sensitive to new developments, horizon scanning, addressing cultural and communication challenges, providing staff development	Contexts are complex and multiple factors are at play. The most important skillset is that facilitators can engage stakeholders so that they become empowered- Being embedded in the team is a crucial enabler of how much ownership the team takes adding value because there is more likelihood of sustainability QI tools enable the testing out of small scale change Outcome measures enable evaluation of whether things are moving in the right direction It's not about the tool) it is about getting people to act and discover what is happening. Weick's observation about the soldiers lost in the mountains using the wrong map to get to safety always reassures.	Divisional leads Facilitators Front line teams Service users and patients	S1.7 S1.10	S2.18 S2.27	S3a9	S4.P1.5 S4.P2.5 S4.P3.5 S4.P3.6 S4.P3.9 S4.P4.4 S4.P4.5 S4.P4.6 S4.P4.7 S4.P4.8 S4.P4.9	L4 L8

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Lit
Context: Senior facilitators/leaders working with frontline teams to embed safety culture, QI in frontline teams							
5. Facilitators using Observations of practice and enabling others to do so, enable collective learning, growth of confidence and staff engagement around safety culture and human factors through celebrations, recognising patterns and dissonances that support discussions around shared meaning and role clarity	Using Observations of Practice provides a structured approach to helping teams celebrate what is going well, understand their priorities and direction of travel for improvement Provides small bits of information about relationships Provides information about bigger patterns about micro-interactions and the environment Enables dissonance about shared meanings or between values and behaviour to be identified to clarify expectations	Organisation Governance teams Divisional leads Facilitators Front line teams Service users and patients		S2.19	S3a10	S4.P2.5 S4.P3.9	
6. Facilitators need time allocated to their role in order to be effective at organisational level. Also need opportunities for support to debrief, stress management and learning	Time needs to be allocated to facilitation roles in order to enable the facilitator to be effective in supporting front line teams to be successful in sustaining quality improvements Transformational leaders need support and regular feedback on their effectiveness to enable them to flourish in their QI role	Organisation Divisional leads Facilitators Front line teams Service users and patients		S2.20		S4.P1.7 S4.P3.9	

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Lit
Context: Patient Safety Collaborative initiative used in context of acute trusts							
1. Genuine organisational commitment to safety in frontline teams will be reflected in key safety messages, integrated governance approaches that enable organisational learning, the implementation of fast track systems, provision of resources and the recognition that culture trumps safety also resources to support	Exposure to quality improvement tools promotes organisational awareness of the value and simplicity of measurement Observations of practice are useful in promoting learning and could be used more widely to promote organisational learning and development The Texas Culture Survey has given opportunity to develop the tool further and provides a set of metrics to gauge organisational improvement Screen saver endorses organisational messages on safety The impact of staffing and increasing acuity on staffing levels	Organisation Governance teams Divisional leads Facilitators Front line teams Service users and patients	S1.13	S2.21	S3a11 S3b9	S4.P1.10 S4.P4.10	L6 L7 L8 L13 L14 L15 L16
2. The initiative empowers staff to make their own choices about projects rather than being told what to do and provides an opportunity for the organisation to look at the culture within teams and consider a different way of working from	A focus on patient safety culture initiatives enables the teams to work together for a common purpose This approach has a generalizable methodology that can be rolled out	Organisation Governance teams Divisional leads Facilitators Front line teams Service users and patients	S1.11 S1.13	S2.24	S3b4	S4.P1.9 S4.P2.6	L13 L14

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Lit
Context: Patient Safety Collaborative initiative used in context of acute trusts							
bottom up grass roots level to grow and sustain innovation at the front line	across the organisation and empowers staff from the grass roots with a democratising effect						
3. Concerned about the lack of buy in and engagement by the Trust board (organisationally outwardly they are interested but this has not played out in sustainable interest)	Trust Safety Governance engagement with, support and clarity of understanding of the initiative and its potential usefulness to the organisation is crucial Authentic board engagement and support of quality improvement initiatives is needed to support facilitators and frontline teams Oversight at board level is needed to prevent project overload and staff feeling overwhelmed by organisational change Effective management of divisional workload pressures minimizes impact on staff feeling overwhelmed at the front line	Organisation Governance teams Divisional leads Facilitators Front line teams Service users and patients	S1.11 S1.12	S2.23 S2.26		S4.P1.11 S4.P1.14 S4.P2.7 S4.P2.8 S4.P3.10 S4.P4.10	L12 L13 L14 L15

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Lit
Context: Patient Safety Collaborative initiative used with facilitators/frontline teams							
1. Co-ordinated cross organisational collaboration, support, and leadership **could** optimise organisational learning for the organisation and help with the navigation of the project and its potential outcomes	This did not happen due to the busyness of organisational lead with other agendas and also business of other facilitators with emergency care. Enthusiasm and leadership of the facilitators articulated the value of the project and its methods for sustainable innovation in the Trust Danger of project isolation	This would have enabled better support for the facilitator and better integration of the project with governance Also would have grown a critical mass of people for ongoing support of organisation	S1.11 S1.12 S1.13	S2.22 S2.24	S3a12 S3b7	S4.P1.14 S4.P2.8 S4.P4.12 S4P4.13	L6 L12
2. A focus on frontline teams and safety culture was experienced as positive by staff and should enable learning from focusing on bottom up approaches	Staff felt this showed concern for staff and safety not just flow Staff felt there was a focus and interest in what they were doing and improving Microsystems Staff felt pleased to have a focus on safety culture using the Texas Safety culture tool and CCIs to focus on and tease out elements of work	Front line teams Facilitators Service users and patients Staff ownership and engagement	S1.14	S2.28. S2.29	S3a.13 S3b. 1 S3b.2 S3b.3	S4.P1.13 S4.P4.12 S4.P4.13	L14
3. Team members were concerned about the time involved and whether they had the capacity and ability to improve patient safety and whether they had a clear plan, especially as multiple other projects tend to come along. The potential to positively impact on the safety culture of Kent was	Risk of project fatigue **could** impact on staff time and engagement with any safety culture initiative Front line service demands need to be managed carefully to enable time for	Front Line teams Facilitators Service users and patients	S1.12 S1.13 S1.14	S2.26 S2.25	S3a.14 S3b.6 S3b10 S3b12	S4.P1.14 S4.P3.10 S4.P4. 11	L16

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Lit
Context: Patient Safety Collaborative initiative used with facilitators/frontline teams							
valued as was the potential for feedback from others, but also how any impact could be measured?	facilitators to engage in supporting teams effectively Will turnover make improvements short lived and getting everyone together for a meeting difficult to achieve Ward has better culture now even though cannot measure this. Organisational metrics do not reflect the complexity of the workplace and are going in the wrong direction since organisational culture has changed Struggling to evaluate that we are making a difference using the metrics we are using Complexity behind this – not pressure – but finding it harder Governance disintegrated in terms of what was required from project Organisational metrics going in the wrong direction Danger of downward negative spiral due to self-fulfilling prophesy						
4. Texas tool /equivalent opened Pandora's box – how to manage what you find?	Teams and facilitators need help with both making sense of the tools and addressing its findings	IT departments Patient Safety Boards Support of facilitators		S2.30	Sa17	S4.P1.8 S4.P1.10	

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Lit
Context: Patient Safety Collaborative initiative used with facilitators/frontline teams							
USED WITH Observations of practice	We **now know the areas that are troubled but what do we do with that**? So what are the tools out there? How do we use them? What is the best way? Tools are easy to use but how do you use the results? **Who will facilitate the discussions** required for example in relation to respect Gained experience and confidence in using the Texas culture survey tool and observations of practice I feel confident I can run collaborative projects using QI tools (driver diagrams, process maps, PDSA Exposure to the Texas Culture Survey has given opportunity to develop the tool further Observation with the 2 cultural surveys, although small numbers seems to be evidence of a (positive) shift in culture and this is largely down to the ward manager/clinical leaders leadership. An advantage as a new manager is having some space to reflect on using the cultural tool	Organisation					

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Lit
Context: Patient Safety Collaborative initiative used with facilitators/frontline teams							
	Could not be embedded due to busyness of IT department with other initiatives						
5. Structured huddles introduced three times a day served to protect both patient safety and staff safety. It is not the title but what you do with it – e.g. safety briefing	Operational leads attended. Conversations were triggered which positively moved the thought process forward. The decision-making was escalated and speeded up more quickly Support given to enable breaks for staff to be co-ordinated enabling staff wellbeing Everyone worked together A tangible different in structure of the day but difficult to measure impact Decision making speeded up Using for focusing on personal as well as patient safety	Staff personal safety	S1.14	S2.29	S3a.15		
6. The opportunity to be involved in the action learning was valued but not available to everyone	Having all the dates in advance would have helped with attendance The learning sets are a really useful a powerful forum to promote sustained engagement and tease out issues and realise you are doing okay **Early sets were useful as indicated how others were addressing what they**		S1.15	S2.31	S3a.16	S4.P1.11 S4.P2.9	

What Works	Why (Mechanisms)	For who does it work	S1	S2	S3	S4	Lit
Context: Patient Safety Collaborative initiative used with facilitators/frontline teams							
	were doing and building contacts between participating organisations Helped see facilitators were doing other things in other trusts but understand that others have the same problems with sustaining higher level support with changing service managers						
7. A common approach across case study sites with clear guidelines for participating organisations and teams provides clarity of purpose	With no common approach the patient safety culture intervention loses its value If there are too many competing projects happening at the same time in one area or organisation its makes it difficult to sustain innovation. Unclear expectations what was expected from PCC became clear in the action learning sets			S2.28	S3b11	S4.P1.12	Story site 2

SITES:

Site 1 comprises three teams Site 2 comprises one site team

Site 3 comprises two teams labelled S3a and S3b

Site 4 comprises four teams designated S4 P1, P2, P3,

Appendix 4: Case Study 1 Theme; Frontline teams and safety culture: Managing expectations upwards to keep an improvement project on track

This case study illustrates the impact that middle managers can have on the success of a patient safety initiative by their own values, attitudes and behaviours and the impact this has on the frontline team. It is constructed from a range of stakeholder perspectives, observations of practice by the independent evaluator and the field notes taken afterwards, Claims Concerns and Issues provided by the facilitator and frontline team leader, from observations of practice, and an emotional touchpoint with the facilitator.

There is a delicate balance that improvement facilitators need to achieve between supporting a frontline team to implement improvements in their practice whilst managing expectations of middle managers who may not be so clinically focused in their role and see the value of an initiative. Managing expectations early on therefore for all members of the wider team is very important as this story illustrates.

Overcoming staff attitudes to change can be very difficult when working in a busy A & E department. Attempts to reduce patient waiting times and transfer patients more quickly onto wards can be met with resistance *"Some staff think you're getting at them personally- rather than seeing the question how can we help you? There's too much negativity about – that's not going to work"*

I walked into a very tense exchange between the Manager, facilitator and team leader. There had been a misunderstanding about the nature of a complaint that had been made by another matron in another unit concerned about a patient transfer which they felt had not been safe. The matron of A & E appeared to have jumped the gun by reacting to and blaming the project team without checking out the nature of the complaint first and understanding that the project was not to blame as it had not started. There was recognition that all parties needed to reach a common understanding of the issue by finding out what had happened and then all sitting down together to work out what actions needed to be taken to learn from the episode. The project team came up with a strategy for how to improve their communication with teams across the hospital about the SBAR tool and patient transfer which included a newsletter, fliers and meetings with the relevant matrons. This has subsequently led to the matrons all meeting every 2 weeks on a Thursday. The project appears to be running smoothly and the issues I had encountered on my last visit with miscommunication around a safe patient transfer seemed to have been addressed. This had been achieved through meeting with the Matrons of both areas and having a collective discussion about the issue and miscommunications.

Since then the matrons of all areas receiving A & E patients are meeting on a Thursday to help support collective learning around what has gone well that week with safer patient transfers, issues and concerns. This appears to be having a very positive impact and this was verified by the Matron of A & E who popped her head in.

The team have undertaken an audit of the SBAR tool use in patient notes which indicates almost a 95% uptake. There are still a few issues around Tissue Viability being consistently not filled in but generally it has had a positive impact on the behaviours of staff involved and receiving patients. The staff felt that this was in part down to the design of the form which is logical and easy to use and provides an instant overview of all the key information needed about a patient for handover. The fact that it is easy to use has given staff confidence. The team also have undertaken a couple of observations of practice themselves to enable them to reflect on patient flow and are keen to continue to use the tool. They have set a 1 month review date.

The facilitator in this story reflected that the experience had enabled them to focus on their own self-awareness, resilience and the impact of behaviours on others. The importance of effective communication-When, How, What and to who is essential.

> *"I have learned that resilience is essential and that finding out what does not work is just as important as what does. Working on the SCQIRE project has empowered staff from all bands to believe they can effect change. The team appear to be very enthusiastic about the project, very pleased to see it has been successful and feel very positive about the impact it is having on their working relationships with wards and with each other. The success of the safe transfer and new SBAR form has led to a safer environment for patients. The work done on this project can be replicated for other safety initiatives".*

In summary the emotional resilience and communication skills of the facilitator offering high challenge and high support when needed are important ingredients for empowering and enabling front line teams to keep their focus and maintain momentum when there are inevitable challenges to progress. Having a champion who can help to refocus energy and attention on the important aspects of a project and its purpose has a democratizing effect that can act as an important buffer to maintain a project on track. Without this there is the potential for projects to languish and fall by the wayside because of lack of clarity by others or a lack of buy in by more senior managers who are not on the front line.

Appendix 5: Case Study 2 Theme; Senior Facilitators/leaders working with frontline teams to embed safety culture, QI in frontline teams:- Safety Initiative Facilitators working together to co-construct the system required by the organisation

This case study illustrates the crucial role that skilled facilitators play in connecting front line teams at the micro systems level to the wider organisational capacity and capability for safety improvements across the system when they work together. They play a crucial role in creating the interrelationships and connection between micro-meso-macro levels of the system. The case study is constructed from a range of stakeholder perspectives which include facilitator pre and post cognitive assessment of leadership, 360 feedback, reflective reviews, Claims Concerns and Issues tools, observations of practice, and Emotional Touchpoints using the Health Foundation Pyramid.

The facilitator's passion and commitment to practice improvement as well as their leadership and facilitation skills for sustainable transformation at the front line of practice is a key ingredient. Experienced facilitators are able to make meaning as a process for engagement within organisations and shows potential for managing upwards, which breaks the mould of the "top down" management approach to transformation.

> *"Being embedded in the team is a crucial enabler and how much ownership the team takes and adds value. Teams are eager to make changes they feel add value but currently feel they need "permission" to do so. I am very comfortable (facilitating change) because they're my team and I've known them for years which is positive and negative- but allows for more adult conversations about things. This is as much about a commentary of me as a team member as it is about the project. With this sort of "bottom up" project there is less need to micro- manage and you can step back. The team had the opportunity to focus on something they feel is important and to see that they are able to make meaningful changes."*

Observations of practice reveal the importance of the facilitator being visible and able to authentically role model good leadership and best practice, as well as being able to share and create a compelling vision for what is possible to change at the front line when working directly with front line teams. Collectively facilitators working together can co-create a powerful platform for front line teams to have a voice for change within organisations because they are able to articulate the value of an initiative and demonstrate the potential of methods used for sustainable innovation across the organisation.

Using quality improvement tools enables focus on safety culture and observations of practice are a powerful way of illuminating practices at all levels of the organisation for every profession.

"(*There is) recognition that this is something we need to address if we are to improve as an organisation. Observations of practice have been useful in promoting learning and it is recommended we use this more widely and more frequently across the organisation. Understanding values of observations and how simple they are and how useful they are- anyone can do it. It is so powerful and simple too. It's been really good to have a focus on safety culture using the culture tool and CCIs to focus on and tease out elements of work".*

From an organisational perspective experienced facilitators are sophisticated in working together and know what needs to be done across the organisation in order to develop knowledge skills and competence in measurement for improvement, and build capacity and capability for sustainable quality improvement and patient safety. 'Creating an environment where staff feel able to give things a go and make small scale changes without needing to seek permission and where it is okay to fail'.

"The (safety) initiative empowers staff to make their own choices about projects rather than being told what to do…and has a generalizable methodology that can be rolled out across the Trust and empowers staff from the grass roots with a democratising effect. It provides an opportunity for the organisation to look at the culture within teams and to consider a different way of working from bottom up grass roots. It has given a greater insight into our strengths and weaknesses as a team (of facilitators) and has shown us that we can manage meaningful changes without outside interference/support."

Clarity of understanding of the initiative and its potential usefulness to the organisation is crucial. Effective and clear leadership by Trust boards visibly seen by frontline staff to be authentically engaged is important.

"*I was concerned about the lack of buy in and engagement by the Trust board (organisationally outwardly they are interested but this has not played out in sustainable interest). We're all doing different things, and with no common approach the patient safety intervention loses its value*"

An observation of a board meeting highlighted that effective board leadership is crucial for supporting front line improvement projects reflected here in field notes.

> ➢ There was clear enthusiasm and leadership exhibited by the facilitators who articulated the value of the project and its methods for sustainable innovation in the Trust.
> ➢ There were no members of the acute services present supporting the 4 project teams, they had all left the meeting and therefore did not provide any feedback.
> ➢ The same questions that were asked at my first visit were being asked of me again at the second visit – which creates concerns about engagement with the project overall.

- The board members present did not appear to have a very clear understanding of the initiative or its potential usefulness to the organisation and the board going forwards.
- There was no apparent link to how the board might grow and sustain the model at the front line of practice having been one of the Trusts to be chosen.
- There was no clear leadership within the room or any champions other than the project facilitators speaking up about how to integrate it into the Trust's future plans for QI, Leadership and Innovation at the front line of practice.
- There is no clear strategy in place that demonstrates how the Trust will embed, grow and sustain the work at the front line.

Time and workload can potentially limit the capacity of the facilitator to be more effective especially if they are expected to undertake the role with no additional time allowance provided.

> "*I feel confident I can run collaborative projects using QI tools (and have) the knowledge to develop a safety culture in the workplace what I lack is the time and space to do this work*".

Furthermore the number of improvement projects within an organisation happening at the same time can lead to project overload and the 'risk of project fatigue may impact on staff time and engagement with the initiative' if not carefully managed.

> "*As an organisation we had too many ward projects (competing for attention at the same time). It may be difficult to get focus on their work if competing with other projects going on across the Trust*".

In summary this case study demonstrates that facilitators play a vital role in integrated governance approaches that enable organisational learning because they connect micro and macro-levels of the organisation and provide vital resources that connect people. Skilled competent and confident transformational leadership skills are required to empower and enable front line staff to make choices grounded in practice, whilst the ability to influence and champion initiatives at board level within the organisation are important in creating a seamless connection to build capacity and capability for safety and quality improvement. Having a generalizable methodology for quality improvement across the organisation is essential along with time and space allocated to the role.