

BUILDING 'HEALTHY' TEAMS: MULTIPROFESSIONAL TEAM TRAINING FOR THE OPERATING THEATRE ENVIRONMENT

Healthcare is perhaps the most complex of industries, with many interfaces between professions for each patient, and therefore many opportunities for problems to arise. Team training has to span these many staff groups. In this article, **Bryn Baxendale** describes the experience of implementing a team training and improvement programme for multi-professional teams working in the operating theatres at Nottingham University Hospitals NHS Trust.

KEY POINTS

1. **Safe and effective care in the operating theatre relies on skilled surgeons, anaesthetists, nursing staff and other theatre professionals working together as a team and adapting to dynamic, complex situations.**
2. **Relatively little attention is paid in daily practice to highlighting and strengthening the team skills and behaviours that support effective performance, as these tend to be regarded as 'routine work' by the staff involved.**
3. **'NUH TEAMS' is an evidence-based team training and development programme that is being implemented in the operating theatre setting and that brings these team-based capabilities into clearer focus.**
4. **Organisational resilience will be strengthened by teams actively engaged in improving their performance and by enabling them to highlight systems-level issues for senior management.**

Healthcare is delivered by multi-professional teams that rely on collaboration to provide the safest, most effective care for patients. Surgical care and the operating theatre environment is a high-profile area of practice where teamwork and collaboration throughout the patient's 'care pathway' (the sequence of interventions by professionals for a patient with a specific clinical problem, partly analogous to a flight plan) is fundamental to the delivery of high-quality care. However, this collaboration is not always recognised by team members in their routine work, where the emphasis remains on technical skills and productivity. Deficiencies in teamwork or ineffective communication are often highlighted when serious patient safety incidents are investigated.

The current safety paradigm in healthcare emphasises the importance of learning from infrequent events where the patient has suffered serious harm or death. In the UK, the concept of 'Never Events' has strengthened the focus on a pre-specified selection of 'avoidable' events that can cause serious patient harm or death (NHS Improvement, 2015). The resulting investigations tend to include recommendations that highlight the need for better teamworking and communication between staff, or with patients and families, or both.

It should be remembered that, as in aviation, healthcare practitioners working within teams usually perform very effectively the majority of the time. This is regardless of whether these teams are co-located or distributed in time or geography along a patient's care pathway, and regardless of whether they work together regularly or are formed specifically to deal with a particular situation. The teams work in complex and messy environments characterised by ambiguity, incomplete data, time pressures, resource constraints, potentially serious consequences from error or failure, deeply engrained professional and organisational cultures, and many policy edicts at a local and national level. This may sound familiar to some readers in the aviation industry. So how can we promote better teamworking and communication, especially if we do not want to unravel some of the capabilities and qualities that already exist, and that help create the resilience and adaptability within the system? Similar to aviation, team training (similar to team resource management in ATC) has developed as a way to improve teamwork. This article describes our experience with implementing a team training and improvement programme ('NUH TEAMS') for multi-professional teams working in the operating theatres at Nottingham University Hospitals NHS Trust in the UK, and its potential future development.

There is now much research on the specific skills and behaviours of high performing 'expert' teams. This literature is drawn from many different domains of work, but a common set of underpinning elements feature consistently (Salas et al, 2005; Baker et al, 2006):

- Team leadership
- Team orientation
- Mutual performance monitoring
- Back-up behaviours
- Adaptability

These core elements are supported by specific attributes that can be observed in high performing teams, namely:

- the presence of mutual trust
- the ability to develop and sustain shared understanding of current and future requirements of the team
- the use of specific communication methods in routine work.

Where structured team training is in place, there is now evidence of:

- improved safety-related behaviour in individuals and teams
- improved clinical processes and effectiveness (reduced delays and time to treat)
- improved patient outcomes, including reduced harm or death.

Structured team training does this by influencing perceptions and attitudes amongst staff toward patient safety in daily practice (i.e., safety culture) (Thomas et al, 2013). TeamSTEPPS^(TM) is a validated evidence-based teamwork training model (Figure 1). It has a tested, systematic and quality-assured approach for successful implementation (AHRQ, 2014). It applies a range of tools and techniques within a structured team development programme. This is based on 20 years of research and lessons learnt from the application of teamwork principles within many different high-risk industries and areas of professional practice, including healthcare.

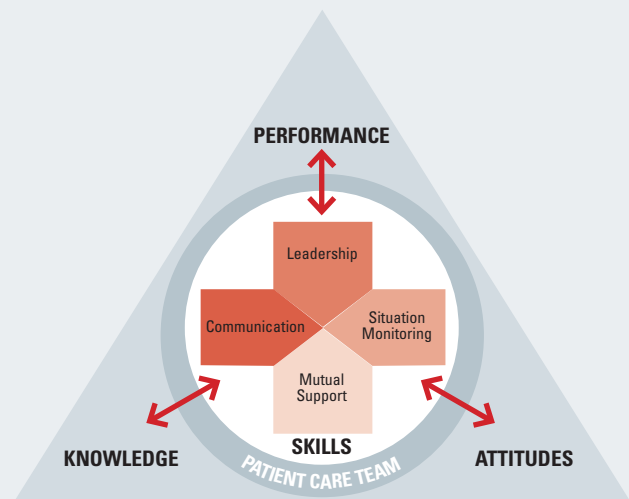


Figure 1: TeamSTEPPS^(TM) model for developing expert teams

At Nottingham University Hospitals (NUH) NHS Trust in the UK, we have implemented a multi-professional development programme called 'NUH TEAMS'. This helps to develop and embed these key skills and behaviours within the routine daily practices of our operating theatre teams. The NUH TEAMS programme is based on the TeamSTEPPS^(TM) model but with some changes to help successful implementation in the NUH context.

How it works

Effective team training depends on a structure and processes to support implementation and sustainability. Figure 2 gives an overview of the NUH TEAMS Programme structure and processes. The role of each element of the NUH TEAMS Programme (white boxes) is outlined below.

- NUH TEAMS Operations Group.** The programme co-ordinator is an experienced theatre practitioner, who has administrative support to help communicate progress with more than 20 different theatre specialty teams, based on multiple hospital sites.
- NUH TEAMS Faculty.** The programme co-ordinator liaises with a pool of designated NUH TEAMS faculty (teaching staff). These are experienced practitioners from different professions and staff groups who have progressed through an established faculty development programme. This programme provides them with deeper background knowledge and coaching capabilities to enable them to support the teaching and improvement programme.
- Education workshops.** The basic educational content is shared with theatre teams on a specialty basis in a classroom setting where possible in the form of a half-day interactive workshop. The workshop enables the team to identify and discuss issues that are most relevant to their own performance, and to consider how best to apply and refine the skills, techniques and practices identified in NUH TEAMS to the context of their practice. The workshops are backed up by access to web-based electronic learning resources.
- Theatre Improvement Groups (TIGs).** Specialty based TIGs comprise a small number of representatives from different staff groups within each specialty theatre team (including surgeons and anaesthetists). The main function is to identify and promote improvement ideas within their own team practices, challenge and overcome local barriers for improvement, and report progress to the overarching project group. TIGs are coached in improvement methods by the NUH TEAMS faculty. The TIGs have a limited amount of protected time to meet regularly. Networking between the TIGs is encouraged by the NUH TEAMS Operations Group to help the sharing of improvements and solutions.
- Team performance dashboards.** To demonstrate improvements in quality of care and staff well-being, existing quality data are collated and made accessible to the project team and the TIGs. In turn each TIG is encouraged to develop and refine its own specialty team performance metrics. These are shared with all team members as a 'dashboard' to help strengthen good practice and promote improvement where appropriate.

- Simulation exercises.** Faculty follow up on key issues by using simulation exercises and feedback in practice where possible. This helps to embed specific skills and behaviours in the workplace.
- Coaching in practice.** The NUH TEAMS faculty support improvement by role modelling and influencing behaviour change via coaching in practice.

As a multi-professional programme, NUH TEAMS requires the engagement of various professions and staff groups involved in the duration of a patient's surgical procedure (including ward admission, anaesthesia, surgery, recovery and postoperative care). This is helped by having visible involvement in the programme design of senior managers and clinical colleagues from each profession. Placing the quality of patient care as central to the team training programme helps to provide a focus for collaboration within and between different teams involved along the end-to-end 'patient care pathway', especially when some feel 'less visible' as their work is more 'behind the scenes'.

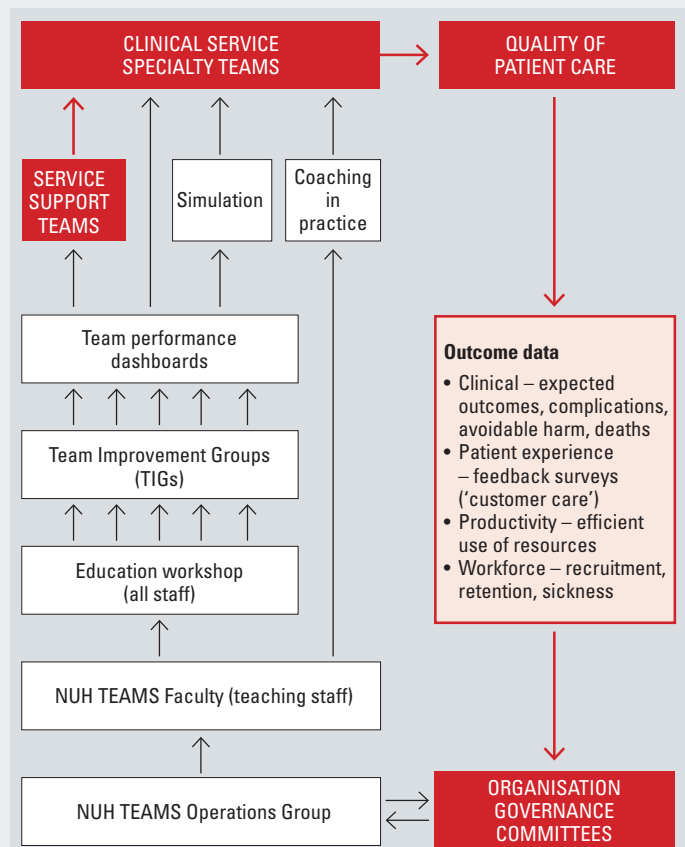


Figure 2: Overview of the NUH TEAMS Programme structure and processes

Red boxes show the system in place to deliver care and monitor performance via specific indicators of quality measured against defined standards.


White boxes show the different elements of the NUH TEAMS programme.

Where next?

The programme is well-accepted by staff from all professions and backgrounds, who apply some of the tools and techniques into their daily practices. There are still hurdles to be overcome in terms of altering individual behaviours, but enhanced coaching within teams aims to influence this by direct role modelling and feedback in practice.

Over time it is anticipated that data will give a more predictive view of optimising performance rather than a retrospective view of past performance. These measures will be aligned with critical aspects of collaboration and adaptability in teams, including the ability to:

- sustain shared understanding within and between teams
- manage conflict
- support each other's well-being
- embed trust and respect in daily work.

This will benefit resilience and safety at an organisational level by enabling teams to talk to senior managers about organisational changes needed (Salas et al, 2008). 



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Find out more

You can find out more at <http://bit.ly/NUHTEAMS>. Follow us on Twitter @NUH_TEAMS



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