

Full Length Research Paper

# A novel feedback method on teaching and training in operating theatres in the United Kingdom

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There is an immense drive and requirement to obtain feedback on teaching and training provided by the consultant trainers in the U.K. Though the General Medical Council has extensive guidance on this, the existing systems have two main drawbacks. First, it places the onus on the trainer to obtain feedback and hence associated with an innate selection bias while choosing the respondents. Second, the minimum requirement in the U.K. to obtain such feedback is only once every 5 years. With a view to address these issues, we devised a novel system; it used an anonymous method to collect and provide continuous feedback on the consultant trainers in an inner district general hospital. We attempted to study the feasibility of such a feedback system. The feedback system that we used was a yearlong continuous process. We present the interim results for a 5-month period. Trainers had no influence or control over the feedback system. The response rate was 75% and there was an overall positive response, with all trainees rating the overall quality of training and trainers as good or excellent. We described in this paper that our novel feedback method demonstrated that it is feasible to obtain feedback in an anonymous, continuous real time fashion.

**Key words:** Feedback, anonymous, teaching and training quality.

## INTRODUCTION

The word 'doctor' means physician, and is directly derived from the Latin word '*docere*', meaning 'to teach'. All doctors have a professional obligation to contribute to the education and training of other doctors. The General Medical Council (GMC) publications, '*The Doctor as Teacher*' and '*Good Medical Practice*' (2013) clearly delineate educational obligations of doctors and explain duties of doctors who supervise junior colleagues. By sharing knowledge, expertise and guidance, senior doctors help to shape the future of good medical practice across specialities and are therefore a vital part of educating and shaping all doctors in training. Given the

complexity of Royal College examinations, anaesthetic procedures and drills, anaesthetic trainees particularly rely on direct and effective teaching provided by senior clinicians. The nature of competency-based training expects trainees to be proficient for their level, before being able to progress further in their training. Obtaining feedback on teaching and training is part of good medical practice. There are several existing systems in place for trainers to obtain and reflect on feedback. Assessing and analysing the feedback is essential to determine the quality of teaching. Some of the recognised problems with the current feedback systems, as illustrated by Ingram (2013), are the presence of selection bias associated with the trainers choosing their respondents and the intermittent nature of the feedback. Ingram describes how raters who are expected to give a favourable feedback, are usually chosen.

The existing methods allow trainers to choose the trainees, who provide the feedback. The current system in the U.K. requires them to obtain feedback only once every five years. We attempted to minimize the effects of these factors and study the true quality of training provided by trainers in the operating theatre environment by using an anonymous and continuous method to collect feedback.

## Aims

In order to assess the quality of training and teaching provided by anaesthetic consultants in an inner city district general hospital, we devised a novel and interactive system to collect anonymous feedback in a continuous fashion. We aimed to obtain accurate and unbiased feedback. Our objective was to evaluate the feasibility of such a feedback system.

## METHODS

We devised an online feedback system that allowed trainees in anaesthesia to provide anonymous feedback on the consultant anaesthetist trainers. Trainers had no influence or control over the feedback system. We chose to conduct this feedback system in one specific operating theatre where only a small group of consultant anaesthetists worked. This allowed the feedback to be obtained on any individual anaesthetist on multiple occasions so that it provided a comprehensive representation. We chose the trauma and orthopaedics theatre as anaesthetists, for this theatre were a dedicated group of consultants. We obtained the feedback over a period of 5 months. There were 9 consultant anaesthetist trainers who worked during this period. There were around 18 trainee anaesthetists who underwent modular training in trauma theatres during this period. We obtained advice from the local audit and information department. Ethics committee approval was deemed not necessary as obtaining feedback is part of standard practice and requirement for good medical practice. A nominated lead trainee circulated and obtained the feedback using the online questionnaire. The online questionnaire system did not reveal the identity of the trainee providing the feedback. The trainees were fully aware of the anonymous nature of the feedback system. This provided them with confidence and opportunity to provide an open and honest feedback. Using the validated multisource feedback tool called the 'Doctors as Teachers Assessment' (DATA), relating to GMC Good Medical practice standards used by the 'Health Education West Midlands' to support educational appraisals, we created an online survey and send the link to all trainees undertaking their trauma module. We aimed to obtain trainee feedback on trainer performance. The survey spanned over a period of 21 weeks. The link was sent out to trainees periodically during that period. The survey

consisted of four questions, each relating to different domains of teaching and training. Question 1 relates to the trainer's demonstration of evidence based medicine and proficiency of clinical work. Question 2 relates to effective teaching ability and question 3 asked about their general enthusiasm for teaching. The final question asked about their ability to teach at an appropriate level. The questionnaire used for the survey is shown in table 1. Trainees were required to respond by rating the statement with either strongly agree, agree, disagree, strongly disagree and unable to comment.

## RESULTS

The results were collected and collated by the nominated lead trainee. There was no consultant trainer input or influence in this process. There were 18 trainees who provided feedback on 9 consultant anaesthetist trainers. We had an overall response rate of 75% and had an overall positive response rate with all trainees rating the quality of training and trainers as good or excellent.

For the first question of the survey relating to the trainer's proficiency of clinical work and demonstration of evidence based medicine, 31.3% of trainees responded by stating they 'agreed' and 68.7% stated they 'strongly agreed'.

For the second question relating to the effective teaching ability, 37.5% of trainees stated they 'agreed' and 62.5% stated they 'strongly agreed'.

For the third question relating to the trainer's general enthusiasm for teaching, 31.3% trainees stated they 'agreed' and 68.7% stated they 'strongly agreed'.

For the final question regarding the trainer's ability to teach at the right level, 37.5% of trainees stated they 'agreed' and 62.5% of trainees stated they 'strongly agreed'.

Overall results showed the trainees rated the consultant trainers in a positive manner. There were no negative ratings for any of the questions. Figure 1.

## DISCUSSION

Anaesthesia training has traditionally always consisted of direct clinical teaching and targeted supervision but recently the overhaul of traditional training pathways such as implementation of European Working Time Directive (EWTD) and Modernising Medical Careers (MMC) in the United Kingdom have potentially led to a reduction of period of training. Failure to meet training needs can ultimately result in a delay of progression. These changes make it therefore even more important that existing teaching opportunities are effective, useful and targeted.

To achieve learning, one must acknowledge the learner's needs, address those needs, and then check that those learning needs have been met. Obtaining feedback plays a key role in that process.

**Table 1. Feedback Questionnaire**

1. The Consultant inspires confidence clinically, puts patients first, is an impressive evidence based practitioner and demonstrates continuous learning. He/she carries out clinical work expertly.
2. The Consultant is an effective teacher who maximises every teaching opportunity, gives frank and constructive feedback. He/she makes it easy to ask questions or challenge. He/She does not make trainees feel anxious or foolish.
3. The consultant is an enthusiastic, inspiring exponent of his/her subject and teaching role. This is the kind of doctor I would like to be.
4. The Consultant teaches at the right level, based on the curriculum and on individual learning needs.

Trainees can sometimes feel intimidated or unable to provide honest and direct feedback to their senior trainers. By using a quick and easy anonymous online survey consisting of four questions, we were able to feedback training issues to consultants teaching on the trauma module successfully.

This direct link of communication will enable a more tailored approach to teaching and thereby ensure trainees will be able to achieve their required competencies early and become safe practitioners. Furthermore formal feedback will enable trainers to provide evidence of their competencies at appraisal meetings.

A recent review of workplace-based assessment methods by Miller (2010) found that Multi source feedback (MSF) could lead to performance improvement. Miller et al in this review emphasized the importance of multisource feedback and how MSF is one of the very few assessment tools that leads to an objective improvement in performance. The use of MSF has been documented in various medical disciplines for both junior doctors and specialists.

*'Communication is a two-way process that leads to appropriate action... in the context of developing competence, it is not an exaggeration to describe feedback as 'the fuel that drives improved performance.'* (Parsloe 1995)

MSF is a relatively inexpensive, reliable and there is evidence majority of doctors report improvement in performance. Overeem et al (2007) in their study discuss the importance of doctor's performance assessment using MSF in the doctor's daily practice. There are increasing public expectations and legislations on professional practice, training, teaching proficiency and the need for professionals to demonstrate these virtues. Archer et al (2010) state that there is increasing evidence that multisource feedback assesses both clinical skills and psychosocial skills.

Berk (2009) concludes the MSF model appears to be a useful framework for implementing a multisource evaluation of faculty teaching performance and professionalism. Berk also states MSF can provide an accurate, reliable, fair and equitable decision.

The operating theatre setting provides opportunities for close behavioral observation of interactions and teaching

under pressure. It is difficult for a teacher and learner to hide their responses and this allows both parties to have real time feedback and learning.

Most of the assessment questions are not only aimed at minimum professional competencies, but also against promoting excellence. This is a very important aspect, as we believe this process will encourage team members to strive towards excellence. The group of trauma anaesthetists were willing to engage in this process that measured their performance.

The existing system of obtaining feedback was through the hospital validated system, which was an overall feedback on the doctor's performance.

Most of the anaesthetists recognised the existing feedback systems were not specific for assessment of teaching and supervision skills.

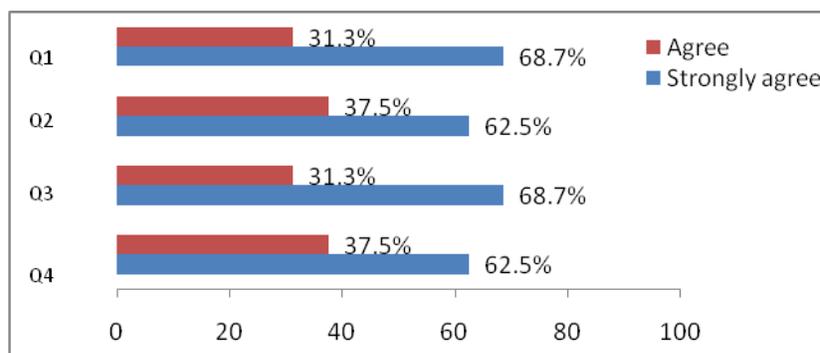
The challenges for teaching include not only being proficient with the anaesthetic management and skills but also familiarity with the trainee curriculum and workplace based assessments.

Sampling a wide range of trainees is essential for the feedback to be a true representation of the teaching skills. The current systems innately have a selection bias. Ingram et al (2013) in their study highlighted the challenges in providing feedback without anonymity. They showed the paucity of constructive feedback on suboptimal performance. Our methodology avoided this selection bias wherein all trainees who worked in theatres during that period were given opportunity to present their feedback. The trainees' feedback was completely anonymous and there was no duress while they provided the feedback. Hospitals and systems are still hierarchical and it is unlikely trainees may give a true feedback when there is no anonymity. Trainees do have apprehension about the confidentiality of their feedback on individual trainers and are less likely to give frank honest feedback. Moreover trainees are more likely to give honest feedback on the overall group rather than on individual trainers.

Castanelli et al (2011) in their study on attitudes and beliefs of staff anaesthetists showed anonymity as a very important feature required while obtaining feedback. The anaesthetists also viewed the process as an opportunity for self-improvement.

The reception of MSF on teaching among the trainees has

The results are shown in figure 1.



been positive. The trainers' response to this survey has been positive, with all trainers supporting this process. Anaesthetic trainees are highly valued sources of feedback as they are closely involved observing the anaesthetists' practice and the teaching.

Quite commonly, positive aspects of performance are not adequately reinforced. It is important to provide good feedback to provide motivation to the trainers. The trainees were able to feedback without any fear of reprisal.

This is more likely to provide a complete well rounded picture of the trainer's teaching and training skills. The assessment questions indirectly also assess Anaesthesia Non Technical skills(ANTS). All these skills contribute towards high quality teaching.

An ideal way of obtaining feedback would be a continuous feedback process rather than taking a snapshot approach every five years. The current systems in the UK require anaesthetists to obtain feedback on their teaching and performance once every revalidation cycle, which is 5 years.

Our method allows continuous feedback enabling continuous real time information, allowing the anaesthetist to continually reflect and improve.

Trainees will be exposed to different teaching and training styles and are likely to evaluate and provide constructive feedback from which other members of team can learn. The aims of such feedback systems are to improve performance.

We were hoping such assessments would provide reliable information on important qualities of a doctors teaching skills. As these skills are assessed by actual trainees on a day-to-day basis, this is likely to give a true reflection of actual performance.

By creating an anonymous platform for trainees to provide feedback, we were able to ensure high quality training in specialities relying on close senior supervision and input. We aim to widen this anonymous feedback to other anaesthetic sub-specialities within the trust, such as obstetric anaesthesia and we are confident it will ensure effective and meaningful feedback for trainers.

Our study showed it is feasible to use an electronic feedback system, which is simple and reliable. This has the potential to compare performance of teaching across various sub-specialities in anaesthetics and even across different hospitals in the region.

The techniques outlined in this paper have been designed with simplicity and efficiency in mind. We have shown this to be a simple and reliable technique.

One of the limitations of this system is the issue of addressing negative feedback. It is difficult to triangulate the trainer on which such feedback was given. However as this system is a supplementary feedback system to the existing hospital wide feedback system, we hope these issues would be captured there. We did not have any negative feedback in our study.

The feedback was presented for review by external assessors from the deanery. The feedback process received positive comments from the external Quality Assurance panel from the west midlands deanery, which is the responsible organization for teaching and training.

## CONCLUSION

High quality teaching and training are an important aspect of good medical practice. Multi source feedback on teaching skills is an essential quality improvement tool required in this process. One of the main flaws with the existing feedback systems is the selection bias and the intermittent snapshot nature of feedbacks. As feedback was obtained on 9 consultant anaesthetists over a period of 5 months, it is likely to give a true representation of their teaching performance. Our innovative method of anonymous, continuous real time feedback enables trainers to have a true picture of their quality of teaching and also provides constant opportunity to reflect and improve. We were able to successfully demonstrate the feasibility of such a feedback system.

## Conflicts of Interest

The authors declare they have no conflicts of interest. There was no funding for this study.

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