Feedback as a means to improve clinical competencies: Registrars' perceptions of the quality of feedback provided by consultants in an academic hospital setting

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Background. The training of novices, in any field, to achieve the optimum state of cognitive, clinical, technical and professional development requires a variety of teaching methodologies, including the process of feedback. Feedback is defined as a process where the desired standard of proficiency in a task has already been established and communicated to the student before gaps in performing the task or in the level of knowledge are identified. The process of feedback has often been evaluated and has consistently revealed students' dissatisfaction with the amount and type of feedback they receive in their clinical and postgraduate training, as they perceive it to be inadequate, inappropriate or non-existent.

Objectives. To investigate the perceptions of the quality of feedback received by a diverse, heterogeneous population of registrars in postgraduate training at an academic hospital.

Methods. A study was conducted using a questionnaire to determine the perceptions of all registrars in the six major clinical training programmes with regard to the quality, efficacy and effectiveness of feedback received during clinical training. Descriptive statistics were used to interpret the responses of the registrars, with mean values being calculated.

Results. Perceptions of the quality of feedback received differed across disciplines. Overall, the registrars rated the feedback they received as poor. The majority (51.4%) reported that both formal and informal feedback was only sometimes, even rarely, received during all encounters with consultants. Others (51.3%) felt that the feedback received was unacceptable, and did not perceive it to be based on concrete observations of performance. The proficiency of consultants in giving feedback was scored as unacceptable by 64.8% of registrars.

Conclusion. Registrars in training regard feedback as an essential component of their postgraduate medical education and as an important component of achieving clinical competence. More formalised processes need to be implemented. The majority of registrars agreed that consultants required training in providing feedback effectively.

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The training of novices in medical specialties to achieve the optimum state of cognitive, clinical, technical and professional development requires the use of a variety of teaching methodologies, including the process of feedback. This level of excellence can only be achieved if the gaps between actual and desired performance are reported to the trainee by a more experienced supervisor, together with a plan for improvement.[1] The failure of feedback mechanisms can contribute to incompetent healthcare professionals.[2] This is due to various reasons, including the failure of students to recognise different forms of provision of feedback; when and where feedback is provided; incapacity of the teacher; operational demands of the clinical setting; lack of clearly defined teaching and learning objectives; and inadequate support mechanisms for students not meeting such objectives.[1]

Training to become a doctor is almost the same as serving an old-fashioned apprenticeship, during which skills from more experienced seniors are passed on to students in an experiential learning setting.[3-5] As training progresses in postgraduate specialisation, the need for constant, high-quality feedback from clinical supervisors/mentors to students intensifies to aid in the development of the trainees' finely honed competencies in their chosen field. It is only through the provision of feedback that strengths can be identified and amplified, and corrective measures can be put in place to overcome deficiencies.[4,6] Traditionally, consultants in academic teaching hospitals were held in high esteem for their clinical expertise. Students were expected to learn from observation, rather than being taught by consultants competent in the formal art of teaching. This process is often compounded by service delivery, as tending to patients takes precedence over more time-consuming explanations about details of and reasons for processes followed. However, the failure to provide this essential component of training may contribute to incompetent and poorly trained clinicians, resulting in poor patient outcomes.

Ende,[6] in his seminal article, defined feedback in clinical medical education as 'information describing students' or house officers' performance in a given activity'. Feedback addresses the deficit in meeting a predetermined standard of desired skills by identifying the area of poor performance and devising a means to achieve the standard. It is used to promote the desired, high-quality performance in trainees through raising awareness of current skills in high-level performers.[7] However, to be effective, the process needs to be a formalised assessment of performance, with a corrective plan of action to address deficiencies – a 'learning through guiding' process.[5,8,9] In this way, the trainee receives clarification of the process he or she followed compared with what was expected; on how to address the gap between actual and intended performance; and, most importantly, of the consequences for patient outcomes should the current performance go unchecked. Ideally, this should prompt a behaviour change in the trainee to achieve the desired standard.[7,8]

The lack of appropriate feedback in guiding students on when and how to change, and taking note of and acknowledging what is being done well, can soon lead to disillusionment of the student.[10] However, excessively praising or complimenting the student, which is not feedback in the true sense, has been shown to be equally unsatisfactory over time.[11] With appropriate feedback, students develop autonomy in implementing suitable corrective mechanisms to achieve the desired standard of competence,[10] and are able to critically self-assess performance.[11] As the student makes the transition from under- and postgraduate student to independent practitioner, this skill will prove a valuable resource in the context of an evolving set of competencies, as it aids in a positive approach to lifelong learning, which is expected of a competent doctor. Therefore, even practising physicians, in whom the art of self-reflection (which should be a component of feedback) has been inculcated in their clinical training, are cognizant of the need for continuous medical education and feedback, leading to improved patient outcomes.[12-14]

Feedback has often been evaluated, which consistently reveals students' dissatisfaction with the amount and type of feedback they receive in their clinical and postgraduate training, as they perceive it to be inadequate, inappropriate or non-existent.[14,15] To achieve clinical competence that will result in optimal patient care and outcomes, trainee errors must be rectified and competencies reinforced, especially in the context of workplace 'experiential' learning. This study explores registrars' perceptions of feedback provided by consultants at a teaching hospital across six clinical disciplines, i.e. Internal Medicine, Surgery, Obstetrics and Gynaecology, Paediatrics, Psychiatry and Family Medicine.

Methods

Although a mixed methods approach was adopted for this study, this article reports only on the quantitative data collected. The study population comprised all registrars (i.e. qualified doctors undertaking postgraduate specialisation training) employed at a major teaching hospital attached to the Nelson R Mandela School of Medicine (NRMSM), University of KwaZulu-Natal, Durban, South Africa. All registrars from the disciplines listed above were invited to participate in the study via an online questionnaire. Owing to a low response rate, questionnaires were also handed out at departmental academic days. Thirty-seven out of a total of 60 registrars consented to participate in the study.

Questions related to various aspects of how feedback was given, including: when (e.g. 'Feedback is provided in all encounters with a consultant'); where (e.g. 'Feedback is provided in all settings'); type (e.g. 'Feedback is informal'); effect (e.g. 'The effect of feedback on the registrar is noted'); topic (e.g. 'Feedback is given about clinical skills'); and how (e.g. 'Feedback is given in non-emotive, non-judgemental language'). Sociodemographic information regarding age, gender, home language, discipline and year of study was also gathered. Registrars responded using a 5-point Likert scale (1 (never) - 5 (always)). A definition of feedback was also included: 'For the purposes of this study, feedback is defined as: A process whereby the desired standard of proficiency in a task has been clearly established. This standard has been communicated to the student. Gaps in performing the task or level of knowledge are identified, based on actual observation of the student, and the student is made aware of his or her shortcomings, together with a plan to improve performance.'

Descriptive statistics were used to interpret the responses of the registrars, with mean values being calculated. Differences between groups were calculated using Pearson's χ^2 test for independent variables, with a p-value of <0.05 regarded as being statistically significant. Responses were combined to give an overall negative (1, 2 and 3) and positive (4 and 5) response to certain questions.

Full ethical approval for the study was received from the Humanities and Social Sciences Ethical Committee, University of KwaZulu-Natal (HSS/1185/013D).

Results

The mean age of the registrars was 32.3 (range 27 - 43) years. The majority were female (64.9%) and first-language English speakers (54.1%). Only two of the registrars had a postgraduate diploma and one had a Master of Medicine (MMed), while the remaining 34 had completed only their basic undergraduate medical degree. Most of the registrars (n=16) were in their 4th year of training, 12 were in their 3rd year, 7 were in their 2nd year, and 2 had just commenced training. The registrars' specialisations were divided as follows: Paediatrics (n=9), Obstetrics and Gynaecology (n=9), Surgery (n=7), Internal Medicine (n=6), Psychiatry (n=3) and Family Medicine (n=3).

Overall, registrars rated the feedback they received as poor, as illustrated in Fig. 1. The majority of registrars (51.4%) reported that both formal and informal feedback was only sometimes, even rarely, received in all encounters with consultants. The location of formal feedback sessions was perceived as appropriate (59.4%), but the advance scheduling of such sessions was not (62.1%).

A total of 48.6% registrars rated equally the provision of standards for assessment being predetermined and communicated in advance. However, 51.3% felt that the feedback received was unacceptable, and did not perceive it to be based on concrete observations of performance. The majority reported that they did not receive feedback on techniques performed incorrectly (54.0%) or on those performed correctly (67.5%). Many registrars (59.4%) perceived that feedback was not being documented.

More than half (56.7%) of registrars reported that the intended message was not received and the same percentage perceived insufficient opportunity to respond to the consultant. Overall, 54.0% did not agree with the content of the feedback.

When formal feedback was given, 64.8% of the registrars believed that a plan for improvement had been given, while 59.5% reported the inclusion of new learning objectives. Some 67.6% of registrars positively reported reflecting on previous feedback as a result of current feedback. The language in which feedback was given was perceived to be non-emotive and non-judgemental by 64.8%. In a similar vein, 56.7% of the registrars believed that the feedback received was not influenced by race, gender or ethnicity.

The proficiency of consultants in giving feedback was scored as unacceptable by 64.8% of registrars, while 59.4% perceived that the effect of feedback on them went unnoticed, and 67.5% noted that there were no support structures for students after receiving feedback.

Other results showed that a majority of the registrars (91.7%) believed that consultants should be trained to provide feedback and all agreed that feedback about registrars' clinical proficiency was important.

The exit examination for specialisation – Fellowship of the relevant College of the Colleges of Medicine of South Africa – requires specific preparation in the honing of clinical skills, how to answer written examination questions and make presentations during oral examinations. While 83.3% of registrars agreed that feedback was provided in preparation for these examinations, only 58.8% felt that this feedback was adequate. Some 45.7% thought that it
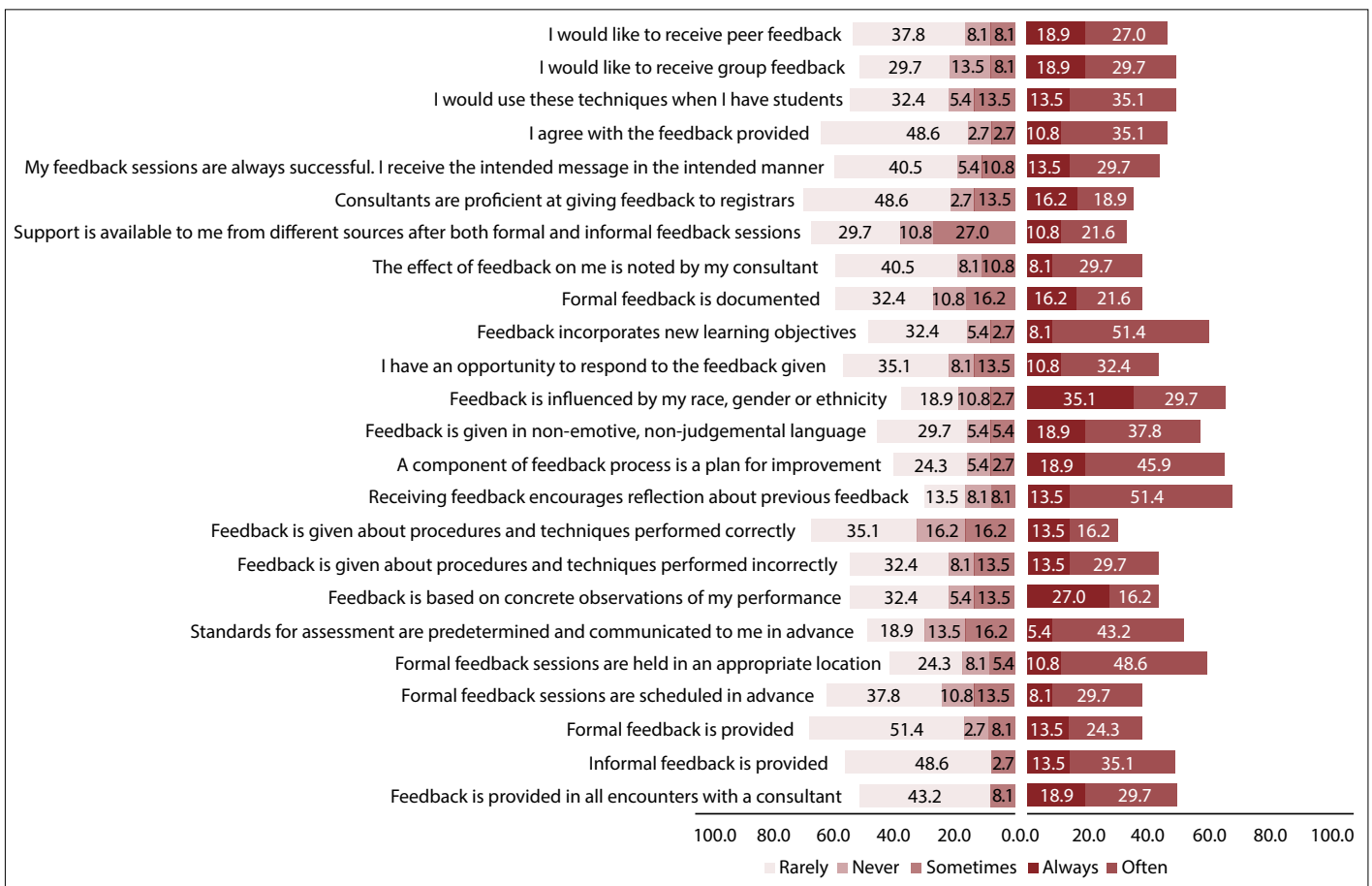
Fig. 1. How registrars believe feedback is provided.

was provided in a timely manner. While 61.1% of the registrars reported that feedback was provided on how to obtain their MMed qualification in terms of the protocol preparation, research and administrative processes, less than half thought the information was provided adequately (44.4%) or timeously (41.7%). The majority (70.6%) believed that the esteem in which they held their consultants influenced the manner in which they received feedback.

Multiple settings are available for provision of feedback. Registrars reported that feedback was provided in various settings: 25.0% during group teaching, 22.0% at the patient's bedside, 20.0% during academic days, and 17.0% during one-on-one teaching. No feedback was given in side-room settings. A majority (87.1%) thought that feedback provided by consultants differed between academic hospitals in KwaZulu-Natal.

Discussion

This study explored the perceptions of registrars' feedback given to them by their consultants at a teaching hospital in six academic disciplines. A fundamental tenet of feedback is the need to improve on performance by identifying the gaps when comparing actual performance with the desired level of competence to be achieved and a previously identified standard. The information with regard to what is missing should be conveyed to the trainee, ideally together with a plan to improve said performance.[4,6] The predetermination of standards to be achieved is a key component.[6] In this study, registrars were divided in their opinions as to whether this

fundamental component of feedback was met. The lack of guidelines that delineate the desired standards and learning objectives to be achieved may leave registrars unsure as to how best to acquire competence in areas of deficiency, as feedback given may be misunderstood.

A core component of medical education is the transfer of skills from an experienced senior to an inexperienced novice in a workplace. Assessing performance and providing timeous feedback at the patient's bedside or shortly thereafter is a type of brief feedback that forms part of a wider spectrum of types of feedback.[1] It is therefore of concern that this study found that feedback was infrequent and not often given at the bedside of the patient, a prime area for highlighting clinical management.[6,7] This finding highlights the need to encourage consultants to provide more feedback, as the experiential clinical setting is particularly conducive to training.[5]

As far back as the 'apprenticeship' that medical students served in the days of Hippocrates, the importance of feedback has been well documented as a means of ensuring that underperforming students achieve the desired level of competence, informing competent students of the skills that they are using, encouraging increasing use of those skills, and focusing the attention of students on the consequences of not performing optimally.[1,5,7,8,15,16] Of grave concern is that the majority of registrars reported that no feedback was given when techniques were performed incorrectly and that opportunities for entrenching good practice were also missed. It is essential for these deficiencies to be addressed to prevent registrars' clinical competence and training being compromised.

In a study comparing the giving of feedback to the process of breaking bad news, emphasis is placed on the importance of the supervisor being fully cognizant of the standards against which performance is assessed, and how these apply to learners at different levels.[8] Being able to respond to feedback allows registrars the opportunity to clarify areas of deficiencies and the steps needed to rectify such deficiencies, which increase the possibility of improvement. The majority of registrars reported not receiving the intended message and not agreeing with the feedback. This is further compounded by them reporting that they were not given an opportunity to respond. This is a serious concern, as these findings may have the detrimental effect of causing the registrar to feel the process is unhelpful, with no clear direction of how to improve, leaving him or her inert, demoralised and fearful to proceed in case of erring. Worse still, the registrar may come to believe that the consultant is wrong and so may persist with incorrect clinical management.[6] Consultants need to be made aware of the effect of feedback on registrars and to ensure that various and appropriate support mechanisms are available to prevent any untoward consequences. Registrars must be at ease in seeking such support.

An appropriate approach to feedback is essential to ensure that the process attains the desired end result of improving performance. This study found that only a third of registrars felt that consultants were competent in providing feedback. It is in the interaction with patients, under the expert eye of the consultant, that these practical areas, which require a 'hands-on' approach and cannot be learnt abstractly or didactically, can be improved, provided feedback is given.[5] Hence, it is critical for supervisors and students to be skilled in the process of giving and receiving feedback.

The Fellowship examination is the exit examination for registrars – an external examination after 4 years of training. The examination has as much to do with being able to present competently and have appropriate examination techniques as with being academically competent. It is disconcerting that, although registrars reported that feedback is provided in preparation for the examination, it is only perceived to be adequate and given timeously half of the time. Such preparation should be an integrated and continuous part of a comprehensive training approach, enabling registrars to present with ease and confidence in their final examinations. It should not be a mere add-on during the last weeks before the examination. Furthermore, information regarding the timelines, and academic support for attaining the MMed qualification, should be standardised to prevent unnecessary delays and improve throughput time in the registrar programme. Our study suggests that a component of the discipline academic day be allocated for formal Fellowship examination preparation to ensure that essential feedback is provided to registrars timeously to allow for adequate preparation.

Conclusion

Good-quality feedback comprising all elements is essential in postgraduate clinical training. While feedback is provided in some meetings with consultants, the essential elements of feedback appear to be missing, i.e. of having predetermined standards to be achieved established and in place, clearly communicated to the registrar beforehand, based on observed performance and incorporating a plan for improvement. Provision must be made for the registrar to respond to feedback and clarify areas of possible confusion, especially with regard to the improvement plan. The findings of this study highlight the need for appropriate and continuous training programmes that must be developed and implemented for consultants to provide and for registrars to receive feedback effectively in the postgraduate medical training settings. A limitation of this study was the small sample size and possible female bias, which can be addressed in future studies by including more academic hospitals to increase both sample size and equitable gender representation.

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