[Title]

Who is responsible for feedback to medical students?

[alphabetical by first name]

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Abstract

Aim: As part of a wider programme focussing on empowering students to take greater responsibility for their learning, this paper reports on the current state of student understanding of responsibility for feedback and how this responsibility is practiced by the student body.

Method: Data was collected from 4th and 5th year medical students based on the Dunedin and Christchurch campuses of the Otago Medical School using an electronic survey. Ranking data was analysed using SPSS and qualitative data was coded manually by team members.

Results: Half the respondents ranked themselves within the top three people, along with teaching staff and consultants / GPs, with responsibility for ensuring that they receive feedback about their progress. A tenth of respondents ranked themselves within the bottom three people with responsibility for ensuring they receive feedback. This position was shared with allied staff and patients / relatives.

More than half the respondents report having asked for feedback, and most of these report that this was a positive experience. Respondents, regardless of having asked for feedback or not, also report lacking the skills to ask for feedback; not seeing a need to ask for feedback; concerns at the reaction to a request for feedback; and perceiving that clinicians are too busy to deal with student requests for feedback.

Conclusion: Contemporary advanced learning in medicine students value feedback and many recognise their responsibility to ask for feedback. Those who actively ask for feedback generally have positive experiences, and are cognisant of when and whom to ask for feedback. Feeling uncomfortable, including shyness, fear and intimidation, along with perceptions of clinicians being too busy; and not needing to ask for feedback prevent some students from asking for feedback.

Introduction

The role of feedback in learning is well recognised. Within medicine and other vocational courses, workplace-based learning is a crucial component of professional development. Feedback in the on-the-job environment can be difficult to maximize but is nevertheless one of the cornerstones of the development of independent practitioners.

Feedback in this environment necessarily involves two linked, but separate, parties: the provider and the recipient, of the feedback. Of these parties, the providers (teachers, educators) roles and responsibilities have been, and

continue to be, the subjects of an extensive research agenda (see *inter alia* Ende 1983, Pendleton et al 1984, Silverman et al 1996, Branch et al 2002, Hatem et al, 2011). By contrast when the recipients of feedback (learners, students) are the subjects of research, the focus of most work has been the perceived quality or usefulness of the feedback received. Using descriptors such as 'sustainable feedback' (Carless et al, 2011) or 'feedback mark 2' (Boud & Molloy, 2012) there is a small dribble of very recent literature addressing the roles and responsibilities of the learner in the feedback process. It is this dribble that the present study aims to augment.

As part of the "Empowering students to take greater responsibility for feedback" programme The Otago Feedback Study (TOFS) focused on the feedback recipients (medical students) and how this group can improve the amount and quality of the feedback they receive. The main aim of TOFS was to determine the effect of developing student skills to maximise verbal feedback, by learning to and becoming confident in requesting feedback from appropriate staff.

Before the intervention effects can be communicated; the background needs to be understood. This paper seeks to explain the current state of student understanding of responsibility for feedback and how this responsibility is practiced by the student body.

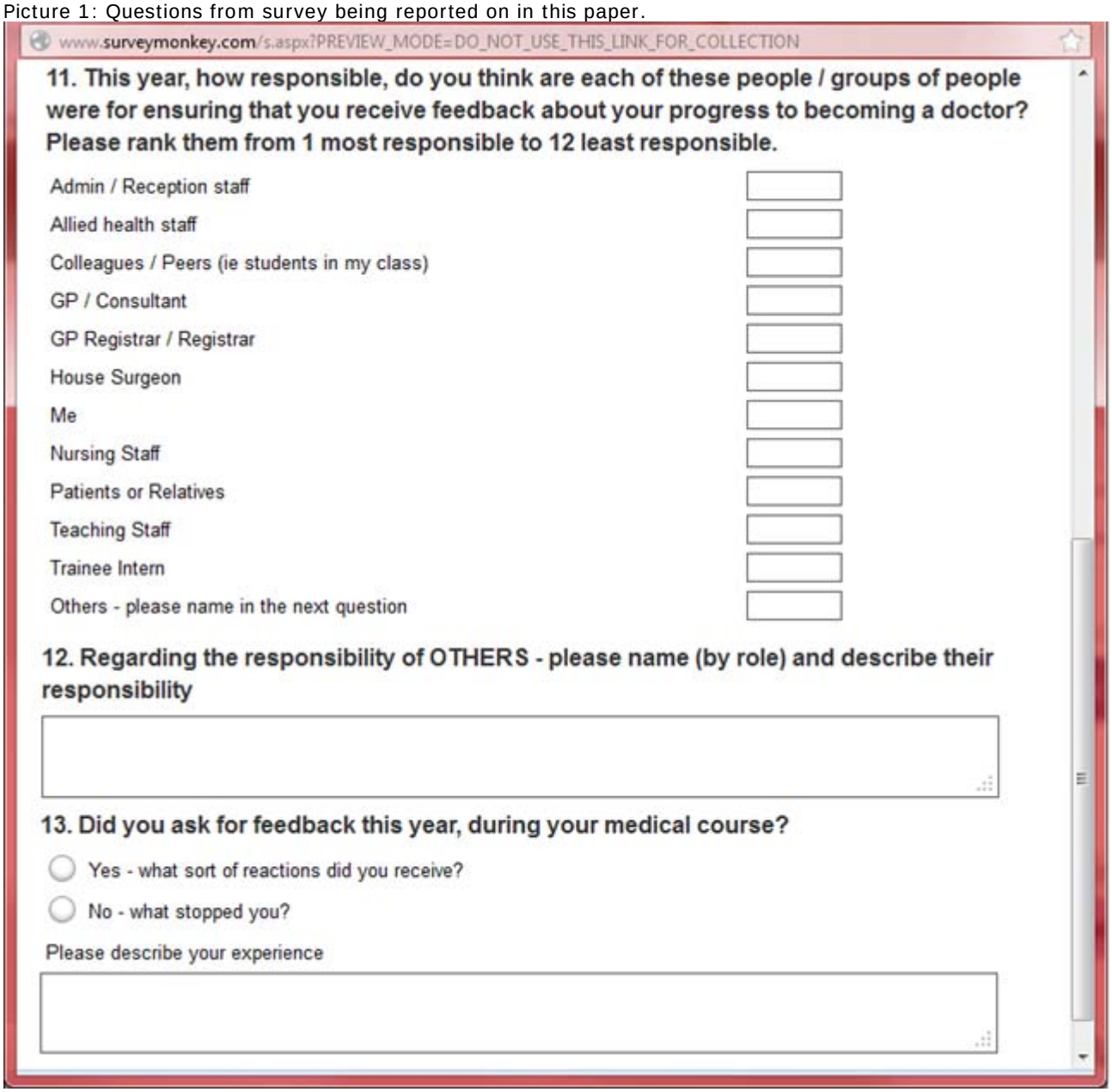
Method

Electronic surveys (Survey Monkey https://www.surveymonkey.com/) were used to collect data from all 4th and 5th year medical students enrolled with the Faculty of Medicine, University of Otago and based on either the Dunedin or Christchurch campuses. The project received institutional ethical approval.

Invitations (email and in-class) to participate in the study were extended to the students. Those who consented to participate (participants) completed background and end-of-year surveys. Towards the end of the 2012 academic year all eligible students (non-participants) were sent a survey requesting information about Feedback in the Faculty of Medicine. A book token draw was used as an incentive to complete the end-of-year survey.

Here we report on pooled responses to two questions, shown in Picture 1. All students were asked these questions.

Picture 1: Questions from survey being reported on in this paper.



www.surveymonkey.com/s.aspx?PREVIEW_MODE=DO_NOT_USE_THIS_LINK_FOR_COLLECTION

11. This year, how responsible, do you think are each of these people / groups of people were for ensuring that you receive feedback about your progress to becoming a doctor? Please rank them from 1 most responsible to 12 least responsible.

- Admin / Reception staff
- Allied health staff
- Colleagues / Peers (ie students in my class)
- GP / Consultant
- GP Registrar / Registrar
- House Surgeon
- Me
- Nursing Staff
- Patients or Relatives
- Teaching Staff
- Trainee Intern
- Others - please name in the next question

12. Regarding the responsibility of OTHERS - please name (by role) and describe their responsibility

13. Did you ask for feedback this year, during your medical course?

- Yes - what sort of reactions did you receive?
- No - what stopped you?

Please describe your experience

From a student population of 320, 102 surveys were received. Of these 81 (79%) student surveys could be used to analyse the responsibility ranking question; 80 students provided yes/no answers to the question 'did you ask for feedback?' and 76 comments were supplied for this question.

SPSS was used for analysing the ranking data. The qualitative responses were coded by team members: JS, MM and TW. The initial coding was followed by discussion to agreement across all the team members on both the detailed and summary ideas expressed by the respondents. Agreement was also reached on which comments exemplified the ideas expressed. Links between the ideas expressed and the behaviour reported (Did you ask for feedback?) were then explored.

Result

There were five summary ideas identified in the comments from students – active, passive, scared, unskilled and uninformative (comments with insufficient information to code otherwise). Most of the summary ideas are made up of several more detailed ideas, these are shown in Table 1.

Table 1: Overall coding structure showing relationship between summary and detailed ideas

Summary Idea	Detailed Ideas	Example of a comment – verbatim from students
Active	When I asked for feedback the response was positive or useful.	"if i was worried that i hadn't handled something well i asked for help. was given constructive criticism and tips to improve. found staff happy to help when you are motivated and interested."
	Asking a trainee intern or house surgeon for feedback is easier than asking a consultant.	"Good. mostly from peers, or health surgeons, as most comfortable with asking them, and they are usually very obliging and give excellent feedback. Do not feel comfortable seeking feedback from consultants or regs or other hospital staff. Too intimidated. worried will be annoyance."
	To give feedback you need to have been observed in a close professional, but not personal, relationship.	"Best feedback I got was from doctors who I spent most time with and who observed me while practicing e.g. GPs However, most doctors/consultants haven't really observed you in clinic and don't really know where you are and cannot give you any constructive feedback."
Passive	I get enough feedback without having to ask for it.	"Already get it without asking"
	Clinicians are too busy, they have more important things to do, or will be annoyed at feedback requests.	"How busy my superior's were I felt they had more important things to do than spend time examining my technique and giveing me subsequent feedback"
	I can't be bothered or shouldn't have to ask for feedback.	"Couldn't be bothered"
Scared	I'm concerned at the response if I ask for feedback.	"fear of what the response is"
	I'm uncomfortable* asking for feedback. *includes: uncomfortable, scared, shy, nervous, intimidated, feel stupid	"Intimidated, because it is very obvious that my level of knowledge is so much lower then the consultant, I can't possibly impress them, so if I ask for feedback all I will receive is - read more books you don't know enough."
Unskilled	The feedback I received	"It depends on the doctor/teaching staff you ask. Some will be very helpful if you ask them, others will

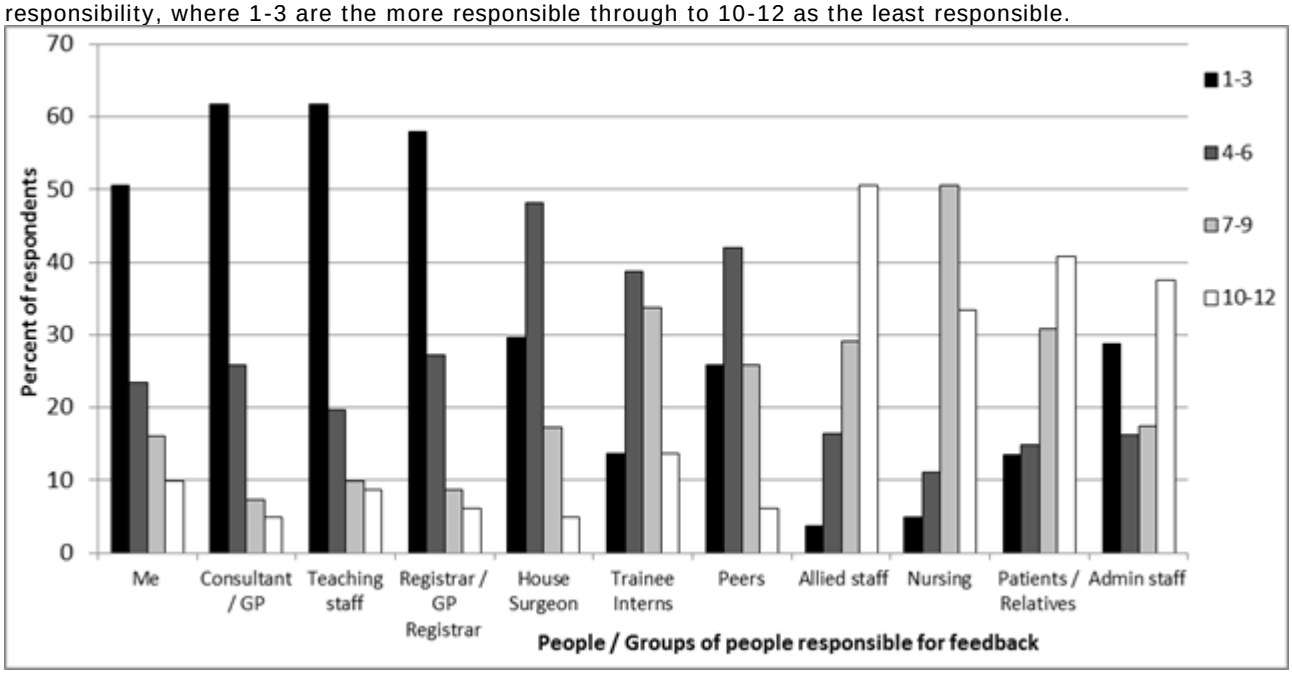
	was not useful to me.	say "yes, it was good" and leave it at that which isn't a particularly helpful statement"
	I lack knowledge of who, when, or how to ask for feedback.	"Didnt know how or when to bring up the question. Feels very awkward and uncomfortable"
Uninformative	No detailed ideas in this group	"nothing untoward"

Reassuringly, the person considered by the most students to have the most responsibility (rank 1) for ensuring they receive feedback was themselves. The next groups with the most responsibility were teaching staff, followed by consultants / GPs.

Almost 35% of respondents ranked themselves as most responsible, and 50% ranked themselves in the top quartile of groups of people for ensuring they receive feedback. However just over a quarter of respondents (26%) ranked themselves amongst the least responsible (ranked 7 or more) for ensuring they receive feedback.

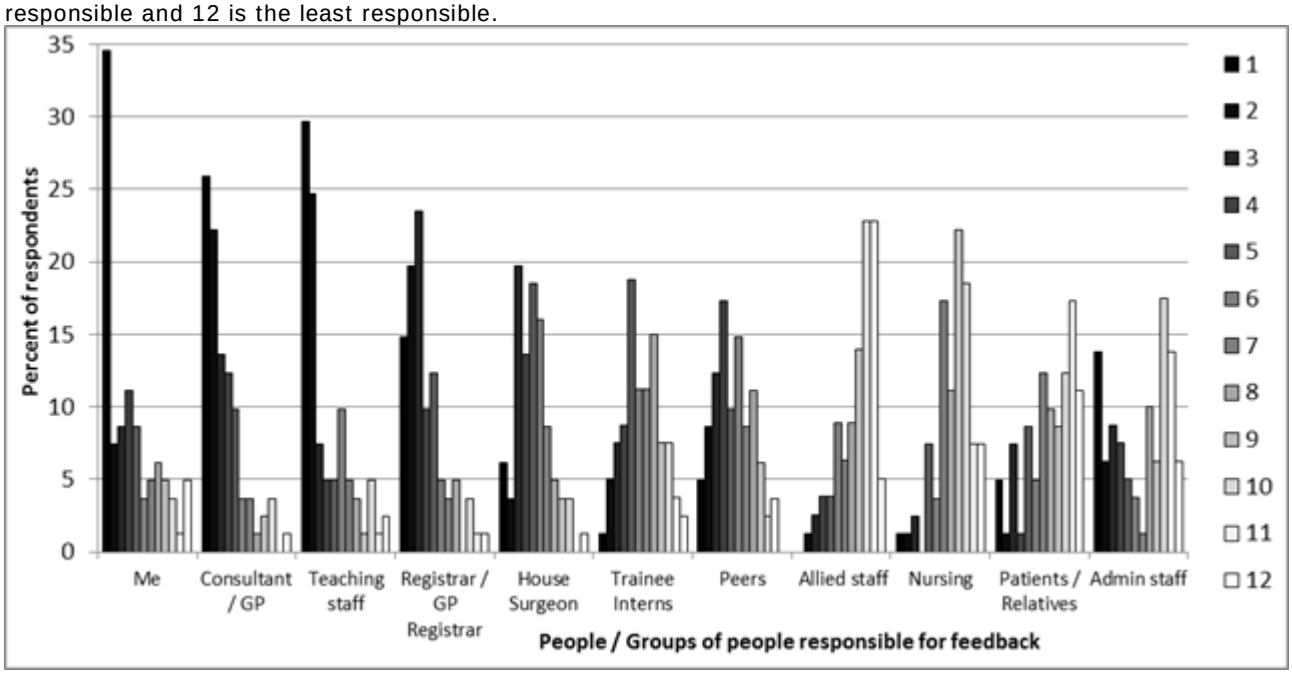
Looking at the quartile distribution graph (Figure 1) we see three distinct patterns of responsibility according to the medical student respondents. Those with more responsibility (Me, Consultants/GPs, Teaching staff, Registrars/GP registrars); those with least responsibility (Allied staff, Nursing staff, Patients / Relatives), and those with mixed and moderate responsibility (House Surgeons, Trainee Interns, Peers, Admin staff). Noting that the Admin staff have quite a different distribution of ranks pattern to the pattern of the other occupational groups.

Figure 1: Percentage of respondents ranking each person / group of people in quartile ranks of responsibility, where 1-3 are the more responsible through to 10-12 as the least responsible.



Disaggregating these patterns (Figure 2) shows subtlety in the ranking of the various groups responsible for providing feedback. As noted above the 'me' group pattern is reassuring, in that the majority of medical students do consider themselves as the most responsible for ensuring that they receive feedback.

Figure 2: Percentage of respondents ranking each person / group of people where 1 is the most responsible and 12 is the least responsible.

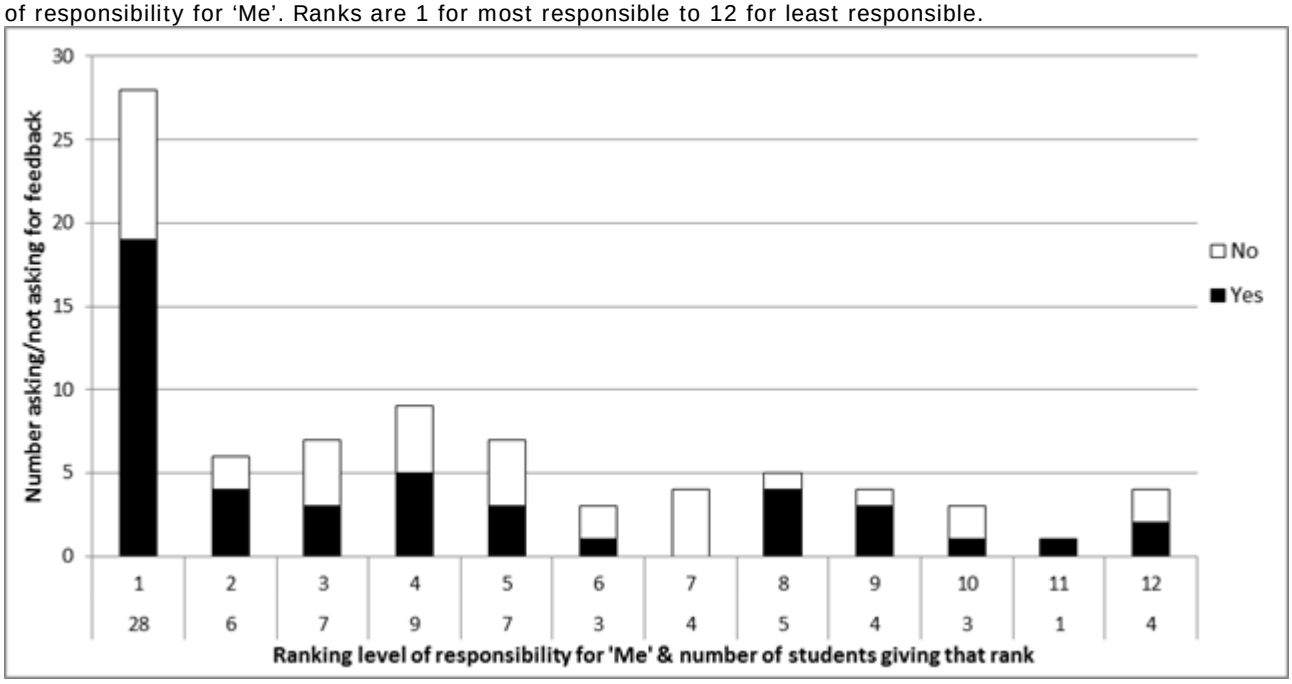


The student respondents clearly see themselves, Consultant/GP, Teaching staff and Registrar/GP Registrar groups as having more responsibility for feedback than other groups. The somewhat flatter profiles of the House Surgeon, Trainee Intern and Peer groups indicate that these groups are perceived as having a lesser responsibility for feedback; but more than the Allied, Nursing and Patient / Relative groups. These latter groups attract a higher percentage of the lower ranks. The 'U' shape distribution of the Admin staff ranks does raise a concern about exactly which staff the students are reporting on – the hospital-based reception, secretary, booking clerk type staff or the university-based course management type staff. As this was not made clear in the question this result should be interpreted with considerable caution.

So half the student respondents rank themselves in the top three people responsible for ensuring that they receive feedback, but do these students practice this ranking? The Otago Feedback Study asked "Did you ask for feedback this year, during your medical course?"

The yes/no division to this question across all the respondents was: 45 (56%) students replying yes and 35 (44%) replying no. Disaggregating these responses by rank of responsibility for 'me' shows the pattern in Figure 3.

Figure 3: Number of students reporting asking for (yes) or not asking for (no) feedback by ranking level of responsibility for 'Me'. Ranks are 1 for most responsible to 12 for least responsible.



The major points shown in Figure 3 are firstly that most of the students who consider themselves as being the most responsible for ensuring that they receive feedback also report asking for feedback. The second point to note is that students report asking for feedback at all levels of responsibility.

The qualitative aspects of this question explored the experiences of the students in both asking and not asking for feedback. In total there were 76 comments to code, 42 (55%) from students responding yes; 32 (42%) from students responding no; and 2 from students not answering the question 'Did you ask for feedback?'

At the summary idea level, most of the comments were coded as active, followed by scared, passive, and unskilled. The uninformative summary idea accounted for 11 (14%) of comments. This suggests that overall students are proactive in seeking feedback. However there are students who find asking for feedback a daunting proposition, don't think they should have to ask or lack the skills to ask for feedback.

Of the active comments the most common detailed code used was 'when I asked for feedback the response was positive or useful'. Students reported very general benefits:
"Good feedback",
to very descriptive experiences:
"I asked one of the senior staff at the medical school once. This went well as he asked me some focused questions which gave me confidence that if I continued as I was I would be doing well."

Several students highlighted the importance of being observed as enhancing the value of feedback. Observation was highlighted in both positive and negative terms, as this comment shows:
"Best feedback I got was from doctors who I spent most time with and who observed me while practicing e.g. GPs. However, most doctors / consultants

haven't really observed you in clinic and don't really know where you are and cannot give you any constructive feedback".
The link between observed actual practice and expected practice was noted by a student commenting:

"*Also some people who might observe you may not know how what level you should be at".*

Respondents reported that asking those closer in the medical hierarchy was easier than asking those higher up the hierarchy. Some comments seem to suggest that the feedback from trainee interns and house surgeons was perceived as more valuable than the feedback from further up the hierarchy.
"Good. mostly from peers, or health surgeons, as most comfortable with asking them, and they are usually very obliging and give excellent feedback. Do not feel comfortable seeking feedback from consultants or regs .... Too intimidated. worried will be annoyance."

"TIs and House Surgeon's gave feedbacks more often and they were understanding of our situation and constructive than feedbacks from consultants."

Comments coded into the scared idea category were mainly in the 'I'm concerned at the response if I ask for feedback' detailed idea group. The ideas expressed by respondents included annoyance, fear and negativity as these comments show:

"fear of what the response is";

"It is a bit daunting to ask for feedback as you may be judged negatively and given negative feedback."

The scared idea category also included the detailed idea of 'I'm uncomfortable asking for feedback'. Noting that, as shown in table one, uncomfortable includes scared, shy, nervous, intimidated, awkward, and feel stupid.

"I was too shy."

"When I didn't (e.g ...) it was partly because I found the consultants intimidating and not approachable."

Passively coded comments included those with the detailed idea of not wanting to ask or not believing that they should have to. Comments ranged from the straightforward
"*Couldn't be bothered"*
to the more complex
"It would be most useful for doctors to give us feedback without us having to ask. It would be very useful for this to become an expectation of consultants who have students with them."

Other respondents in the passive group suggested that they received enough feedback without having to ask. Again some stated this idea very plainly
"Already get it without asking"
while others provided more detail to this idea
"I can't remember if I ever particularly asked for feedback; but the really

good doctors would provide me with constructive feedback anyway, regardless of whether I asked".

The main detailed idea in the passive comments is the 'clinicians are busy, they have more important things to do or will be annoyed at feedback requests' idea. In this idea respondents commented
"Consultants are generally too busy"
or recognised that some runs / teams had more time constraints than other runs
"In some runs when I disnt ask for feedback its usually because the team is very busy".
Time constraints were often linked with the perception of being an annoyance to the medical practitioners:
"*I felt Doctors would be "annoyed" that a medical student is "wasting their time" by asking for feedback. I also felt that they would say (or have the attitude of) "what do you mean feedback? Just watch and learn. Absorb it all by osmosis"".*

In the unskilled idea code there are two more detailed ideas: 'the feedback I received was not useful', and 'I lack knowledge of who, when or how to ask for feedback'. There were few comments in either of these idea codes. In the not useful idea were comments like:
"usually people were not particlualry interested if it wasn't a formal expectation and gave brief responses. It varied greatly."
and in the lack skill area were comments like:
"Didnt know how or when to bring up the question. Feels very awkward and uncomfortable".

The various verbatim comments included in this paper show that students, whether asking for feedback or not asking for feedback, undergo a range of feedback experiences, and interpret these experiences in different ways. Some have a very positive time:
"Usually this is met well with people being happy to give feedback if you actively seek it"
other respondents have found they need to work a bit at feedback:
"Usually positive reactions. I learnt to be very very clear about what kind of feedback I was looking for. I'd frame my questions in terms of the level of detail I was looking for e.g. "Overall, do you have any general advice?" or "When I did X, did you think I should have done Y instead?" I also learnt to only ask for feedback when the person wasn't super busy"
while others have found asking for feedback to be not very useful:
"Sometime people are not too sure what to say and just say "I think it was fine". Although still a feedback, but just seems like there is not much to gain from it."

Discussion

Conceptual model

The conceptual model of self-regulation and internal feedback proposed by Nicol and Macfarlane-Dick (2006) provides multiple points where teacher interventions could be implemented to improve learning. Despite the

different focus of TOFS, compared to Nicol and Macfarlane (learners rather than teachers), TOFS can have a role within their conceptual model.

The Otago Feedback Study is best situated between externally observable outcomes (an essay, presentation or performance) and external feedback from a teacher, peer or employer (Nicol and Macfarlane-Dick, 2006). In this position the skills reported to TOFS serve to enhance the quality and quantity of the external feedback given to the learner in a way that is beneficial to the learner. Thus the learner can receive the feedback instead of just being given the feedback.

Improved feedback to the learner, can then enhance the learner's knowledge (domain and strategy knowledge) base and motivational beliefs. This in turn will strengthen the congruence between the student's internal goals and the teacher's set goals, reinforce or challenge student strategies for achieving their goals, contribute to achievement of internal learning outcomes, and then improve the quality of the externally observable outcomes (Nicol and Macfarlane-Dick, 2006).

Student-centred learning

Part of the programme review of the mid-2000's saw the Otago Medical School put an emphasis on student-centred learning. Perez and colleagues noted in 2009 "student-centred learning allows the learner to take more responsibility for learning rather than being directed by a teacher" (p64). The Otago Feedback Study reports both that some students recognise that they have some level of responsibility for seeking feedback and thus for their learning; and that some students are proactive in asking for feedback. These findings provide a small amount of evidence suggesting that a move from teacher centred teaching to learner centred learning has occurred in the School of Medicine.

This is a positive finding, and should be acknowledged, however we must also note that there are students who don't ask for feedback, and this also occurs at all levels of stated responsibility. Further that some students report that they lack the confidence or skills to ask for feedback suggests that there is room for the School of Medicine to develop learning opportunities for these proficiencies to be gained.

Who gives feedback?

After themselves, the medical students report that responsibility for feedback belongs to consultants, teaching staff, registrars or the more senior doctors in the team. Students accord less responsibility to more junior doctors (house surgeons or trainee interns). However, the student respondents report that they are more comfortable asking trainee interns or house surgeons for feedback, than they are asking more senior medical staff.

Respondents in the present study reported that junior medical staff are "closer in experience and understanding" than senior medical staff. This observation is echoed by Rubin and Rarey (2004) who suggested that proximity of age and experience was one reason for medical students rating feedback from residents (house surgeon equivalent) more highly than faculty. We were unable to explore more deeply the suggestion from several

respondents, as other researchers have reported (van Hell et al, 2009), that feedback from specialists and feedback from house surgeons is perceived as equally valuable or instructive.

Observation before feedback

Across multiple writers is the view that feedback should be offered to students based on the direct observation of actions or behaviours (Ende, 1983; LeBlanc and Cantillion and Sargeant, 2008; Sherbino, 2010; Choo, 2010; and others). The student respondents in TOFS clearly reflect this view although several also note that it is important that the observer is aware of the expected actions and behaviour prior to providing feedback.

Asking for or not asking for feedback

Many TOFS respondent comments - for example "**usually** positive" (our emphasis) - have been interpreted in the positive light, however there is room to take note of the specific language used in the comments. Some respondents hinted at that they found feedback that they initiated to be more useful than feedback that was just provided to them. van Hell et al (2009) found that student initiated feedback was reported as being more instructive when compared to staff initiated feedback or jointly initiated feedback.

Our methodology precluded probing either the more detailed meaning of 'usually' in the supplied comments, or specifically exploring the instructive value of feedback based on the initiator of that feedback. These are both areas in need for further investigation to fully understand the lived experience of requesting feedback in our medical school.

Respondents provided a range of reasons for not asking for feedback. The major reasons reported are time, approachability of staff and deficit in skills for asking. Approachability has been investigated in several ways by different researchers. When considering students asking for feedback, Milan et al (2010) found students emphasised approachability over competence in clinical and teaching staff. This team suggested that faculty (and faculty development programmes) need to become more aware of how they portray themselves to students as well as building skills in encouraging students to seek feedback.

Being yelled or sworn at, or being humiliated or degraded were reported relatively commonly by medical students in New Zealand (Wilkinson et al, 2006). It is quite easy to imagine that if a student has experienced or has reports from colleagues of this type of behaviour that this would reduce the desire to request interactions with staff. Some TOFS respondents identify behaviour which could be interpreted as a continuation of the negative behaviour patterns identified by Wilkinson et al.

Conclusion – Moving Forward

The literature supports initiatives which encourage students to take more responsibility for requesting and following up on feedback. In accepting this assumption one question that follows is do students accept that they have a

responsibility for asking for feedback? As TOFS has shown, Milan et al (2011) report most students agree asking for feedback is a reasonable behaviour for students to carry out.

The present work shows that some medical students accept that they have responsibility for this behaviour.

re is a definite move in literature to encouraging students to request and follow up on feedback

From the few reports of attempts to influence students to become more efficient obtainers and users of feedback (Bing-You, Milan 1998), students seem to need an opportunity to learn how to request feedback. This opportunity has been based on well articulated principles of providing feedback. Underpinning this assumption, as we have shown students do believe

to empower the students to ask for feedback which reflects the usual features of good feedback. Ask soon after the event (and pre-warn a more senior person that you are going to ask), be specific in your request, discuss until you understand the feedback, ask about what you did well as well as what you need to work on, work out a plan of action for yourself including re-observation and more feedback where possible.

Teaching staff also need to continue with learning more about how to deliver feedback, (perhaps by asking a colleague to provide them with feedback on their ability to provide feedback!) and how to positively respond to requests for feedback. In particular working on demonstrating that feedback can be fitted into busy lives – limited use of encounter cards, one minute preceptor (Furney et al), feedback sandwich, Pendleton's rules.

To support to ongoing practice requirements the school could consider requiring students to ask for feedback as part of the expectations of medical students.

All will assist with building the skill and knowledge base to assist with meeting the requirements of being a doctor in NZ. Good Medical Practice MCNZ para 66 states: "an integral part of professional practice is teaching, training, appraising and assessing doctors and students …. If you are involved in teaching you need to develop the attitudes, awareness, knowledge, skills and practices of a competent teacher." Further Continuing Professional Development requirements include a minimum of ten hours per year of peer review which "normally includes feedback, guidance and a critique of your performance."

One student commented that they had experienced widespread (places and people) support and help, then stated: *"If other students complain, they just need to put themselves out there more and get themselves to ward rounds,*

acutes etc." This comment clearly reinforces that for this student the responsibility for learning firmly rests with the student themselves.

LIMITATIONS

Limitations of work include self-reported behaviour but cross checking would be overly arduous and potentially more random. Poor response rate across the student population, improved by carrot of a book token.

Competing interests: None known

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