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Title:
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Date:
2021-01-01

Citation:
Modak, M. B. & Gray, A. Z. (2021). Junior doctor perceptions of education and feedback on ward rounds. Journal of Paediatrics and Child Health, 57 (1), pp.96-102. https://doi.org/10.1111/jpc.15135.

Persistent Link:
https://hdl.handle.net/11343/276188

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Running title: Junior doctor perceptions of feedback

Original article

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Acknowledgements

The authors would like to thank and acknowledge all the trainees who took part in this study around their busy clinical commitments. No funding for this study, which takes context within a larger project that is funded by salaries through the Department of Paediatrics, University of Melbourne.

Conflicts of Interest: None.

Abstract

Aims

The literature suggests that feedback is wanted and needed in clinical medicine and specifically on ward rounds, yet it is often lacking. This study aimed to examine junior doctor perceptions of education and feedback on ward rounds in one clinical department at a tertiary paediatric hospital and the key influences on these perceptions

Methods

Six semi-structured focus groups were conducted over a period of nine months comprising of 20 participants (PGY1-5) in a general medical department of a tertiary paediatric hospital. Qualitative analysis was performed on focus group transcripts using an inductive approach and codes and themes were generated in an iterative fashion with checking of themes between two researchers.

Results

Feedback experiences were largely positive compared to previous rotations. Three overarching themes were identified which influenced trainee perceptions of education and feedback on ward rounds . These were: consultant influences (eg: educational engagement), trainee influences (eg: active seeking of feedback), and structural factors (eg: organizational constraints).

Conclusions

Despite positive feedback experiences, the need to improve feedback for our junior doctors is clear, but how to do this remains challenging when navigating work-learning tensions. The notion of the educational alliance between the consultant and trainee is a potential useful solution, but it requires deliberate effort and dedicated time to establish given our increasingly complex and busy clinical environments.

Key words

Feedback, hospitals, learning, teaching, medical staff

What is already known about this topic

- Feedback in clinical training is a critical educational tool
- Junior doctors want and need feedback but do not often receive it based on report and direct observations on ward rounds and in other clinical contexts
- Barriers to receiving feedback include service delivery pressures and awareness that feedback has occurred

What this paper adds

- Consultant behaviours including questioning, reflecting, and leading case-based discussions are valued by trainees
- Feedback is often 'vanishing' with implications that in its absence performance is adequate, or alternately feedback is only given when things go wrong
- Structuring our time together as a clinical team to achieve an education alliance, despite rotating staff and service pressures, deserves further attention as a way to improve feedback

Introduction

The modern day ward round serves to both provide a consultant-delivered service and act as a teaching and learning opportunity for trainees[1]. It provides opportunity to teach and learn while modelling professionalism and clinical reasoning[2]. Educational theory that underpins this includes Lave & Wenger's 'legitimate peripheral participation', where ward round learners begin on the periphery of the round, and over time are invited inwards as they acquire skills and knowledge[3]. The ward round is also an opportunity to assess a learner's performance as integrated into practice, which Miller considers the pinnacle of learning[4]. During the ward round, senior and junior doctors have the chance to work together and observe each other, thus providing opportunity for feedback.

Feedback in clinical medicine aims to provide information about a trainee's performance with the aim of improvement. Giving feedback closer to the time of assessment facilitates learner understanding and engagement[5]. A paucity of data about trainee performance on which to base feedback, which may occur due to lack of direct observation, or concerns on how the feedback will be accepted may result in no feedback at all; that is, "vanishing feedback"[6]. Indeed, feedback may not occur, particularly when the workload is heavy, and there is significant evidence from previous studies to show that feedback is lacking[7].

Finally, increasing effective delivery of feedback may not be the only solution. Factors that contribute to perceptions of lack of feedback include an actual lack of feedback, difficulties in assessing feedback, and not realising that feedback has occurred[8, 9]. Recipients 'interpretations and responses to feedback may be impacted by their self-confidence, belief in their knowledge, and experience[10].

The literature suggests that feedback is wanted and needed in clinical medicine and specifically on ward rounds, but also that feedback often does not occur or learners may not perceive it when it does. As part of a larger observational study of teaching on ward rounds in a tertiary paediatric hospital[11], we wanted to understand feedback in our context. We aimed to describe

junior doctor experiences of education and feedback on ward rounds in a general medical department of a tertiary paediatric hospital.

Materials & Methods

We conducted a qualitative study using data gathered from six semi-structured focus groups of junior doctors rotating through General Medicine (Post-Graduate Year (PGY) 1-5) in a tertiary paediatric hospital. The study was conducted to answer the questions; a) what are the perceptions of junior doctors regarding education and feedback on ward rounds in one clinical department at this hospital and b) what are the key influences on these perceptions.

We aimed to use a perspective of phenomenology i.e. a perspective looking at lived experiences of the trainees in order to find meaning[12]. The method of the focus group was chosen for its fit within a constructivist paradigm, where reality and knowledge are socially negotiated or constructed[(12)]. In addition, focus groups were likely to provide an opportunity for junior doctors who may be resistant to express views about senior colleagues to hear from their peers and through this be encouraged to share their experiences.

Junior doctors were approached at morning handover, and participants were recruited on a voluntary basis. There were no exclusion criteria. Details of the purpose and the structure of focus groups were provided to participants in written and verbal information. Written consent forms were obtained from all participants prior to the focus groups. Information collected from participants included their gender and job title (i.e. registrar/ resident/ intern).

Six semi-structured focus groups were conducted in a private room at the hospital over a ten-month period (covering different groups of rotating doctors), each comprising up to seven junior doctors who attended one session each. Focus groups were conducted using a semi-structured interview guide (Table 1) and each group discussion ran for approximately 30 to 45 minutes. Field notes were taken during the focus groups, which were later referred to support interpretation during data analysis. For some focus groups, the number of the attendees was less than expected due to work constraints. There were 20 participants in total. The focus groups were conducted by the primary researcher who was a PGY6 in General Paediatrics who was

also working in General Medicine during a period of this study. This researcher had post-graduate experience and qualifications in clinical teaching and previous qualitative interviewing experience. Participants of focus groups were monitored for any psychological distress, with a plan for referral through existing hospital systems if required.

Each focus group was audiotaped then transcribed, followed by a line by line analysis, with a focus on searching for common themes. Data were analysed inductively, with codes and themes generated in an iterative fashion, whereby themes generated by the primary researcher were reviewed by a second researcher to ensure consistency and validity. The research questions are experiential and exploratory, and well suited to this method of analysis. Additional focus groups were conducted alongside the period of data analysis, data were coded and analysed simultaneously, and as new data emerged the themes were revised and finalized into an explanatory model. Data collection continued until theoretical saturation was reached[12]. Ethical approval was obtained from the Royal Children's Hospital Ethics Committee (HREC 36004A).

Results

Focus group characteristics

Twenty participants contributed to focus groups representing approximately two thirds of rotating trainees during the study period. These comprised 14 PGY1-2 trainees and 6 PGY 3-5 trainees of whom 15 were female and 5 male.

Overall participants expressed that overall educational opportunities in the study department were better than they had experienced previously in other roles Regardless, they called a shift in the culture of feedback; *"it would be good if we could just be more frequent and relaxed about feedback"*.

Three overarching themes relating to what influenced their perceptions and experience of education and feedback on ward rounds emerged. The key themes and their subthemes are described below and summarized in tables with illustrative quotes.

Consultant influences on feedback and education on ward rounds (Table 2)

Educational engagement

Perceived consultant engagement in education was important for establishing the learning culture. Trainees recognised consultants who enabled trainee attendance at scheduled education sessions. Conversely some consultants prioritised getting through the ward round quickly rather than prolonging it by creating teaching opportunities. Participants acknowledged that work pressures may be a factor.

Teaching strategies

Participants drew attention to consultant teaching strategies. These included encouraging reflection on cases, capturing small educational moments, giving useful 'pearls' of information, using a post-round coffee as an opportunity to teach, and talking through their examination out loud. The use of questioning by consultants was noted as a useful teaching tool. Discussions that were based around cases provided opportunity for feedback on trainee clinical decision-making. Trainees appreciated the opportunity to hear consultants explain their thinking and rationale and valued when consultants were open to this interaction. Learning by making decisions and being guided by a consultant was also valued. Consultant ability to teach to the different levels of student, resident and registrars of the team was acknowledged. Some described feeling frustrated about the perception that consultants taught more in the presence of medical students.

Feedback delivery

Feedback experiences were discussed alongside the lack of feedback on rounds. Some trainees felt feedback only occurred when something had gone wrong. Conversely when no feedback was provided, trainees interpreted this as a positive reflection on their performance. Others described missed opportunities where they had been observed by a consultant but had not received feedback. When constructive feedback was provided, it was valued by trainees. When feedback was perceived as having trainee growth in mind it was received positively and less likely to be dismissed. Formal structured sit-down feedback experiences, either in the middle

or the end of rotation, were valued by the participants, but for some, this was the only feedback they received.

Trainee influences on feedback and education on ward rounds (Table 3)

Trainee attitude to learning

Trainee characteristics impacted learning opportunities, such as proactive seeking of feedback, perfectionism, and subsequent avoidance of perceived criticism. Self-reflection was considered important as well as actively questioning consultants, but some residents felt reluctant to dictate discussion, and felt unsure as to what consultants expected in terms of knowledge level.

Trainee states

'Trainee states' that impacted on learning include identity beliefs, uncertainty in knowledge, and cognitive overload. Residents identified with a largely clerical role in the team such as being largely responsible for documenting notes. They commented on feeling uncertain of their clinical assessment skills, as well as their abilities and performance in comparison with others. Uncertainty in knowledge was also identified by registrars, some of whom did not feel confident teaching residents and students. Participants made references to the concept of cognitive overload and how it prevented learning. Factors here included the timing of teaching, the number of tasks they had left to manage, and fatigue.

Structural factors influencing education and feedback on ward rounds (Table 4)

Organisational factors

Time and workload pressures were widely seen to restrict learning opportunities for trainees. Although formal education opportunities such as tutorials, case presentations and team meetings were plentiful, attendance at these, and learning on the ward rounds, was perceived to be limited by clinical workload. Interruptions during education sessions were frequent.

Rostering that led to a lack of continuity for residents on a particular team or with a particular consultant created difficulty establishing rapport with consultants and understanding consultant expectations. Residents described uncertainty as to which consultant to ask for feedback at the

end of term, and difficulties obtaining feedback from consultants during the term. Factors here included frequent changes in teams and a lack of direct observation by consultants.

The medical hierarchy

Opportunities for direct observation by consultants for residents were felt to be limited by the hierarchy of the medical system with residents performing mainly clerical duties and infrequently engaged performing clinical skills in front of consultants. Residents reported having more direct interactions with patients after hours, when consultants were not present. As a result, residents wondered if the consultants did not know them well enough to provide critique, and consequently defaulted to positive feedback or praise. In contrast, a few residents commented on the useful role senior trainees could play in the hierarchy by role-swapping during the ward rounds, providing the residents with opportunities to take histories and examine patients under observation.

Discussion

Our study found that junior doctor perspectives of education and feedback on ward rounds in one department at a tertiary children's hospital were overall positive. However, this was described in relative terms compared to previous experiences and should not be the measure of success. The negative aspects of the trainees' lived experiences were clearly described in terms of tensions between work and learning, when feedback was a tool deployed for critique, and when the validity of the feedback received was questioned. These experiences are not unique and are represented in existing literature on ward rounds[7, 13, 14]. There is opportunity to influence this through consultant actions and trainee behaviors, and challenging "hierarchical" roles on ward rounds.

Positive consultant teaching skills such as questioning, encouraging reflection, and case-based discussion found in this study have been highlighted previously[15]. Enabling these behaviours and facilitating feedback is challenging in a busy clinical context, such as ward rounds, where there is tension between service and delivery of effective education. In emergency departments in Taiwan more than half of both staff and trainees reported struggling with the work-learning

tension, and almost three quarters of staff forgot to give feedback due to clinical demands[16]. Both cohorts reported relatively infrequent and brief feedback, that was mostly focused on critique, rather than on positive reinforcement of performance, similar to the lived experience of our trainees. This leads to feedback avoidance[16, 17]. Feedback and teaching skills can be improved through educational intervention[18, 19]. A randomized control trial of anaesthetic faculty using an educational intervention based on the advocacy-inquiry method demonstrated improved feedback quality, higher psychological safety and increased frequency of addressing difficult issues (professionalism) in a simulated scenario[18]. However this does not mean this will translate into practice when other demands compete, nor should it be assumed that feedback skills only reside in the teacher[17].

Improving feedback literacy of learners is critical[17]. In our study, trainees who actively participated in seeking feedback and questioning consultants valued the learning opportunities that followed. In contrast, trainees who were cognitively overwhelmed, uncertain about expectations or permissions, or who identified with a largely clerical role had limited learning opportunities or agency to create them. Perhaps more critical is the notion of the education alliance[20] between the engaged consultant and the proactive learner who share goals and expectations, as identified in this study. Such an alliance would allow for discussion regarding the work for the day, and what opportunities exist for learning. Yet this alliance requires time, space and permission to be established, which may be difficult on wards with rotating staff, shift work or when other work pressures dominate. Structuring our time together as a medical team, in contexts including ward work or a shift in emergency, and prioritising a few minutes to agreeing on agendas and expectations is a necessary but often overlooked first step[21]. Furthermore, if the notion of giving and receiving feedback feels threatening, then focusing on case-based reflection and clinical reasoning may be an important alternative[9] and one well accepted by the trainees in our study.

This study has some strengths and limitations. The focus group method meant data were built between the group members in their own words[12] and thematic saturation was reached. Furthermore, the study was performed over time with different training doctor cohorts, thus

avoiding bias from a single group or point in time when workload may be higher or other activities (eg exams) put pressure on ward-based education. A limitation of this method is that at times junior doctors of the same team were in the same group, potentially limiting the frankness of the discussion. Similarly, the moderator had some supervisory experiences with some of the participants. Conversely, the homogeneity of the participants' background and experience as medical trainees may have facilitated openness in communication, and promoted a sense of safety[22] and the responses attest to both negative and positive views. The authors considered reflexivity, and how personal bias may have influenced the study and it's outcomes[23]. It was important to mitigate this through iterative discussion with a second researcher regarding the themes generated. Finally, qualitative data from a single centre cannot be measured by the concepts of validity, reliability, of generalisability[12] yet the findings raise, and add to themes found in the literature.

Conclusion

The need to improve feedback for our junior doctors is clear, but how to do this remains challenging when navigating work-learning tensions, such as those on ward rounds. The notion of the educational alliance between the consultant and trainee is a potential useful solution, but it requires deliberate effort and dedicated time to establish. Ways to structure our time together as a clinical team, not matter how brief, to achieve this alliance deserves further consideration in increasingly complex and busy clinical environments.

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Table 1: Focus group interview guide

Question	Prompts
Could you tell us about your experiences of teaching and learning in the Department of General Medicine?	What was good? Bad? What worked well? What did not? Formal vs informal education? Meetings vs clinical activities?
What are the challenges to teaching/learning in this job?	
Could you tell us more about your experience of education on ward rounds?	What works well? What does not? What could be done differently?
Tell us about your experiences of feedback, both in this and previous roles	When do you get feedback? Who delivers it? Do you get enough? What areas does the feedback cover? (knowledge, communication, teamwork, efficiency) How useful is it? Can you give any examples? What do you think the barriers are to receiving feedback?

Question	Prompts
What would change about education in the department or the hospital more broadly?	
Do you have anything you would like to say that we have not talked about yet?	

Table 2: Consultant influences on feedback and education on ward rounds

Subtheme	Domain	Exemplar quotation
Educational engagement	Prioritising learning	*"I had one consultant who was fantastic and planned the whole day around us getting to those formal teaching sessions, and on busy days we would divide and conquer the ward round"*
		"some consultants that are very kind of education happy, they''ll pick up on a topic, or pick on a finding, or presentation…and then make the decision-making process more of an educational one as well"
	Prioritising service delivery	*"…we got the feeling that they wanted to spend as little time on the ward round as possible, so it was very much 'bang bang bang'…so the education value of that sort of ward round is minimal"*

Subtheme	Domain	Exemplar quotation
Teaching strategies	Reflection	*"You could either reflect on yourself, you could reflect on the complexity of the case...that was really good because it allowed us to focus on what teaching point we wanted to get from that case was…"*
	Questioning	*"well it gets you to think on your own feet really…gives you more confidence"*
	Case management discussions	*"I was the first person to make a management plan and he'd tweak it slightly if needed…I was always allowed to handball…it was a very very good balance of sort of supported independence"*
	Teaching to different levels	*"…would always ask the resident first so that she had a chance to sort of push her boundaries and engage and then it would be escalated to me, and broadened to fit sort of the pearls I needed to learn"*
Feedback delivery	Missed opportunities	*"I think with feedback like, there's been some really good opportunities where a consultant has been like you examine, or you take the history…but…there's not always time to then have or get any feedback"*
	Perceiving no feedback as positive	*"I guess you probably just have to hope or expect that if you weren' t doing well somebody would probably say something....and if they're not, then that's a positive thing"*

Subtheme	Domain	Exemplar quotation
	Perception of consultant agenda	*"…if it's constructive criticism to kind of allow you to grow and improve, then it's good, if its constructive criticism cos they're annoyed with you, then just oh – do it already…"*
	Formal, structured feedback	*"…from that formal sitting down…you get different feedback to the 'on the go feedback, it's more holistic"* *"[Feedback occurs] When it's time to do the college forms...or like the end of rotation"* *"I think the feedback that's been the most useful is when you've met up with that person at the start…that you've had a set of goals, and you can look back and say this is what you did achieve"*

Table 3: Trainee influences on education and feedback on ward rounds

Subtheme	Domain	Exemplar quotation
Trainee attitude to learning	Actively seeking feedback	*"…when I've asked for feedback I've always got it…there's the formal mini-CEXs and…end-of-term consultant feedback report and…they've been really good experiences but I think what found really helpful was maybe at the end of the first week with a new consultant just checking in with them about how the team is going"*
	Perfectionism	*"I don't think it's said in a negative kind of way…it's just ''You should've done this, or 'it would have been important on history to look for this'…but I think just being doctors we feel 'Oh , we should've done that'"*
Trainee states	Identity beliefs/ the hierarchy	*"the hierarchy I guess? Like you spend too much time like typing I guess so it's less practical teaching I think…"*
	Uncertainty of clinical assessment/ knowledge	*"Sometimes I'm doing the assessment but I'm not exactly sure what I'm feeling or what I'm hearing…it would be good occasionally to have someone say 'okay well I actually thought that this this and this was the case'"*
	Cognitive overload	*"I can recall as a resident that I was so overwhelmed with jobs, that I just didn't have the brain capacity to...[learn]"*

Table 4: Structural factors influencing education and feedback on rounds

Subtheme	Domain	Exemplar quotation
Organisational factors	Time and workload	*"I think the clinical workload can sometimes certainly be a challenge particularly if you have a busy take or really complicated patients there's a lot of stuff that has to get done"*
	Rostering	*"I think another barrier I've noticed…where you move rotations around and have fast moving consultants, I find it challenging because every consultant has different expectations and like what they want you to do, like teaching…when I have a consultant for a long period of time, it was better teaching because we all kind of knew how the round would work, and we had a good understanding of like all the roles…so I think that facilitated more teaching…"*
The medical hierarchy	Clerical duties over clinical skills	*"But this rotation, I don't think that a single consultant has seen me examine a patient"* *"well it just means sometimes you're actually behind the computer...I've done the whole ward round and I don't even know what the patient looks like…I just don't get those opportunities for interactions with kids"*
	Registrars positively modelling teaching	*"the two regs that I've been with have always set aside time to explain things or clarify things with me...that will influence how I am when I am a registrar…to try and find time to teach, and share knowledge"*

Subtheme	Domain	Exemplar quotation
	Perception of consultant basis for feedback	*"…people are very happy to give you supportive…praise, but hesitant to give feedback"*

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Acknowledgements

The authors would like to thank and acknowledge all the trainees who took part in this study around their busy clinical commitments. No funding for this study, which takes context within a larger project that is funded by salaries through the Department of Paediatrics, University of Melbourne.

Conflicts of Interest: None.