Perceptions of feedback up to senior doctors and nurses in a tertiary paediatric hospital: A mixed-methods study

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Abstract

Introduction: Feedback up from junior to senior clinical staff is important for junior staff to facilitate their workplace teaching and learning and for senior staff to develop teaching and leadership skills. The aim of our study was to explore experiences and perceptions towards feedback up in junior and senior medical and nursing staff in our tertiary paediatric hospital in Australia.

Methods: We invited doctors and nurses in both junior and senior roles at our hospital to participate in a survey regarding their perceptions and experience of giving (junior staff) or receiving (senior staff) feedback up. We offered an optional interview to participants to discuss their experiences in depth. Quantitive data were analysed using descriptive statistics and qualitative data were analysed using inductive content analysis.

Results: Sixty-two junior and 70 senior staff completed surveys, and six junior and six senior staff were interviewed. Although 95% of surveyed staff believed that feedback up is important, only 42% were involved in giving or receiving it. Six themes were identified in the qualitative data, including discomfort with feedback up, power dynamics, unclear expectations, no one size fits all, limited time and opportunity and tensions in feedback validity and purpose.

Conclusion: Feedback up from junior to senior staff is wanted but is currently inconsistent or nonexistent in our paediatric hospital. We propose that providing an expectation, clear processes and support in engaging in feedback up would improve acceptance, ultimately leading to improved feedback literacy and a better culture of feedback.

Keywords: reverse feedback; upward feedback; feedback up; healthcare; junior staff; senior staff

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Introduction

Effective feedback is essential for learning. Traditionally, in healthcare settings, feedback delivery has been primarily unidirectional, top down from supervisor to trainee or from a senior to junior staff member (Myers & Chou, 2016). However, bidirectional feedback, which includes feedback from junior staff to senior staff, is also recognised as important, as it assists supervisors in reflecting on their own behaviour and performance (Fluit et al., 2013) and helps trainees develop competency in facilitating feedback discussions (Myers & Chou, 2016). Feedback up, or upward feedback, has been used to describe this process of providing feedback to someone of higher hierarchy (Atwater et al., 2006).

Effective feedback is complex and relies on givers and receivers of feedback valuing and engaging in the process and institutions addressing feedback capacity, design and culture (Henderson et al., 2019). Those giving feedback need to provide timely and specific information, and those receiving feedback need to engage with the feedback, reflect on their performance and be willing to change. Feedback literacy refers to the capacity for givers and receivers of feedback to optimise the benefits of feedback (Nieminen & Carless, 2023). In addition to the participants themselves, there are a range of other enablers and barriers to feedback engagement, which vary according to the subject and institution. Feedback enablers include established feedback processes and a strong culture of feedback, with feedback being expected and valued (Henderson et al., 2019). Countering this, barriers to feedback include time constraints, workload pressures, short rotations, the hierarchical structure in healthcare and perceptions of what feedback is (Modak & Gray, 2021).

It is clear that among existing challenges for feedback in healthcare, the complexity is amplified in feedback up, where the giver of feedback is junior, and the receiver is senior. Senior staff might be worried about how they are perceived, and junior staff are likely to be concerned about the implications of giving senior colleagues feedback. Implementation of a feedback-up system in a healthcare institution, therefore, requires thorough planning and appropriate stakeholder engagement to avoid subsequent challenges or adverse outcomes. Senior staff may need to dispel perceptions of the feedback they will receive so that they are receptive to positive and constructive comments, and junior staff may require reassurance that the process is safe, to ensure provision of honest, constructive and unbiased feedback (Fluit et al., 2013; Hardavella et al., 2017). Although many junior staff would consider anonymous feedback to be the safe option, Dudek et al. (2016) describe advantages and disadvantages of anonymous and identifiable (open) feedback. While anonymous feedback may avoid the need to soften comments and reduce the risk of negative impacts on junior and senior staff relationships, advantages of identifiable feedback include that it can be timely and specific and that junior staff may improve their ability to give and receive feedback.

In our institution, feedback processes are not standardised and are dictated by subspecialty requirements, manager preferences and resources. Staff feedback experiences

are, therefore, very variable, particularly when considering different specialties, seniority and disciplines, including medical and nursing staff. We were interested in exploring perceptions and experiences of feedback up in junior and senior medical and nursing staff in our institution, with the intention to use this knowledge to understand the need for feedback up and what factors require consideration in implementing a feedback-up system. Our research question was: What are the perceptions and experiences of feedback up in junior and senior medical and nursing staff in our institution?

Method

Theoretical framework

Our study draws on social constructivism to develop an indepth understanding of individual perspectives and experiences of feedback, acknowledging that these views have been formed and shaped by the learning culture in which they are embedded (Akpan et al., 2020). We anticipated that individuals would describe the impact of the feedback culture in which they work and that there would be variation between experiences and perspectives due to different staff disciplines and roles. We utilised an explanatory sequential mixed-methods research paradigm—collecting quantitative data first to explore the current practice of and desire for feedback up, before using qualitative data to explore experiences and understand implementation challenges (Othman et al., 2020).

Context

We conducted our study at a tertiary paediatric hospital in Melbourne, Australia, over a 12-month period, between September 2021 and September 2022. The hospital is an academic teaching hospital, with links to more than 15 university programs involving a range of health professions, suggesting that strong academic practices, including effective feedback processes, should be in place. Despite this, feedback processes vary according to department and discipline. In both medicine and nursing, the main formal method of feedback for senior staff, including medical consultants and nurse managers, is an annual professional development action plan, which provides unidirectional top-down feedback alongside individual reflection.

Data collection

We developed an online survey exploring junior and senior staff perceptions of feedback up using a pragmatic approach, as no existing surveys meeting our purpose were identified in the literature. We targeted the survey on understanding the current prevalence and demand for feedback up, while trying to identify existing exemplars and barriers. The survey consisted of 10 closed-ended and one open-ended question. Thereafter, we collected more qualitative data, with interviews, to explore the phenomenon in depth. Two surveys were created, one for junior staff and one for senior staff, with variation in questions depending on whether the participant was giving or receiving feedback (Appendix A). Both were refined through user testing. Participants

were asked to select their discipline, medical or nursing. As there is no regular process for formal feedback between disciplines, it was implied that medical staff were describing feedback experiences with other medical staff and nursing staff with other nursing staff. We calculated a desired survey sample of 100 participants. This was based on a estimated target population of 2,500 staff, with a confidence interval of 95%, a 10% margin of error and the assumption that at least 50% of respondents would want to give or receive feedback up.

We targeted recruitment for the surveys at doctors and nurses employed at the hospital and working in teams of staff with a range of seniority. We sought to include four specific cohorts: junior medical staff in vocational training positions, junior nursing staff working as graduate nurses or within 3 years of vocational qualifications, senior medical staff who had completed their fellowship training and have an appointment with responsibility of junior staff supervision and senior nursing staff, including senior clinical nurses and nurse managers.

We recruited participants through the education leads for each discipline, medicine and nursing. The survey invitation was disseminated using established communication channels within these cohorts, including email, newsletters and notifications via a smartphone application. Surveys were anonymous, and participants opted in voluntarily. We collected and managed survey data using REDCap electronic data capture tools hosted at the University of Melbourne.

At the end of the survey, we asked participants to share their email contact details if they were interested in participating in a future individual interview. Those opting to participate in the interview were advised that their details would only be shared with the primary researcher and would be stored separately to their survey responses. These participants were contacted to arrange a time and mode (online or face to face) of interview most convenient to them.

Interviews were semi-structured and followed a flexible interview guide, which was directed by each individual's experience and responses as either a junior or senior staff member (Appendix B). There was an iterative process with reflection after the interview to refine questions. Interviews ranged from 10–25 minutes (average length 17 minutes). They were conducted by research team members (AG, MH and NJ) and were audio-recorded. The interview data were transcribed using artificial intelligence-based software (Otter.ai, 2023) and then manually checked in full to ensure accuracy. They were then anonymised before being deleted.

Data analysis

We analysed quantitative data using descriptive statistics, including the numbers and proportions of participants responding in each category in the survey. We analysed qualitative data obtained from the open-ended survey question and interviews using inductive content analysis, which aims to draw practical themes from data that may help

future application or action (Vears & Gillam, 2022). Researcher MH independently coded the interview data, with initial interview codes checked by a second researcher, AG. Researcher CvH independently coded the open-ended survey data. The interview data and open-ended survey data were reviewed in detail and discussed at multiple meetings, and recurring themes were identified.

The researchers had varied clinical backgrounds (senior medical staff, junior medical staff and non-clinical staff) with different experiences of feedback, but all had prior experience with qualitative and quantitative research. In terms of reflexivity (Olmos-Vega et al., 2023), the researchers were conscious of the potential for their own experiences of workplace feedback to influence their questioning of participants and interpretation of qualitative data. For example, researchers who were senior medical staff may have identified with senior staff participants, and the researcher who was a junior medical staff member may have identified with junior staff participants and had difficulty relating to senior staff. In response to this, interviewers asked open-ended questions based on a consistent interview guide, encouraged interviewees to share their experiences in detail and set aside time to reflect together on their reactions to interviews. The inductive approach utilised to identify codes was used to ensure findings were drawn from the data, rather than based on assumptions about what we would find (Vears & Gillam, 2022). We used three types of triangulation to strengthen the reliability and credibility of our results, ie., methods triangulation (checking the consistency of our findings by different data collection methods—surveys and interviews), triangulation of sources (examining the consistency of different data sources within the same method) and investigator triangulation (using multiple investigators to analyse the qualitative data independently and then come together to compare and discuss their interpretation, to reduce the impact of individual biases) (Patton, 1999).

Ethics approval was obtained from The Royal Children's Hospital Ethics Committee (Reference Number 79223).

Results

Quantitative findings

Although the survey questions varied slightly for junior and senior staff (considering that junior staff give feedback up and senior staff receive it), survey findings are reported together.

A total of 131 medical and nursing staff responded to the surveys, including 62 junior staff (33 junior medical and 29 junior nursing staff) and 69 senior staff (34 senior medical and 35 senior nursing staff). The response rate is not known, as the survey was sent widely using a variety of communication channels.

The majority of participants perceived feedback up as important or essential, however a small proportion of junior medical (3/32 (9%)) and junior nursing staff (2/29 (7%)) felt it was not possible (Table 1).

Table 1

*Rating of Importance and Feasibility of Feedback Up**

	Medical		Nursing	
	Junior n(%)	**Senior** n(%)	**Junior** n(%)	**Senior** n(%)
Survey participants	33(100)	34(100)	29(100)	35(100)
Importance				
Not important	0(0)	0 (0)	0(0)	0(0)
Somewhat important	1(3)	2(6)	3(10)	0(0)
Important	8(24)	10(29)	11(38)	14(40)
Essential	24(73)	21(62)	15(52)	21(60)
Feasibility				
Possible	29(88)	34(100)	27(93)	35(100)
Not possible	3(9)	0(0)	2(7)	0(0)
No response	1(3)	0(0)	0(0)	0(0)

* Not all questions were completed by all respondents

Only one third (21/62 (34%)) of junior staff reported giving feedback to senior staff, with the practice more common among nursing staff (Table 2). In contrast, half (35/69 (51%)) of senior staff respondents reported receiving feedback from junior staff, more commonly medical staff.

There was a range of barriers limiting feedback up (Figure 1). For all staff, the main barrier was fear of hierarchy (56/62 (90%) junior staff and 60/69 (87%) senior staff). Additional barriers included fear of the impact on future employment (54/62 (87%) junior staff compared to 38/69 (55%) senior staff) and fear that feedback would not be acted on (45/62 (73%) junior staff compared to 45/69 (65%) senior staff). Resources to support the process were considered a barrier mainly by senior medical staff (23/34 (68%)) and time limitations were considered a barrier by senior medical and nursing staff (17/34 (50%) senior medical staff and 19/35 (54%) senior nursing staff compared to 6/33 (18%) junior medical staff and 8/29 (28%) junior nursing staff).

Staff who currently participate in giving (junior staff) or receiving (senior staff) feedback were asked to identify areas in which feedback up is given. Common topics for all staff participating in feedback up included communication (34/55 (62%)), clinical expertise (29/55 (53%)), leadership (27/55 (49%)), education skills (25/55 (45%)) and professionalism (16/55 (29%)). Research skills as an area for feedback up was ranked very low for all disciplines (2/55 (4%)) and was not brought up in any interview.

Preferences varied widely among staff who did not currently give (junior staff) or receive (senior staff) feedback regarding the method or process for feedback up (Table 2). Most junior staff preferred an anonymous process (33/40 (83%)), as did two thirds of senior medical staff (9/14 (64%)), whereas over two thirds of senior nurses preferred identifiable feedback (14/20 (70%)). Overall, two thirds of senior staff preferred detailed feedback (22/34 (65%)), whereas two thirds of junior staff preferred the idea of brief feedback (25/40 (63%)). Junior medical staff had the clearest preference for giving written (22/24 (92%)) rather than verbal feedback (1/24 (4%)).

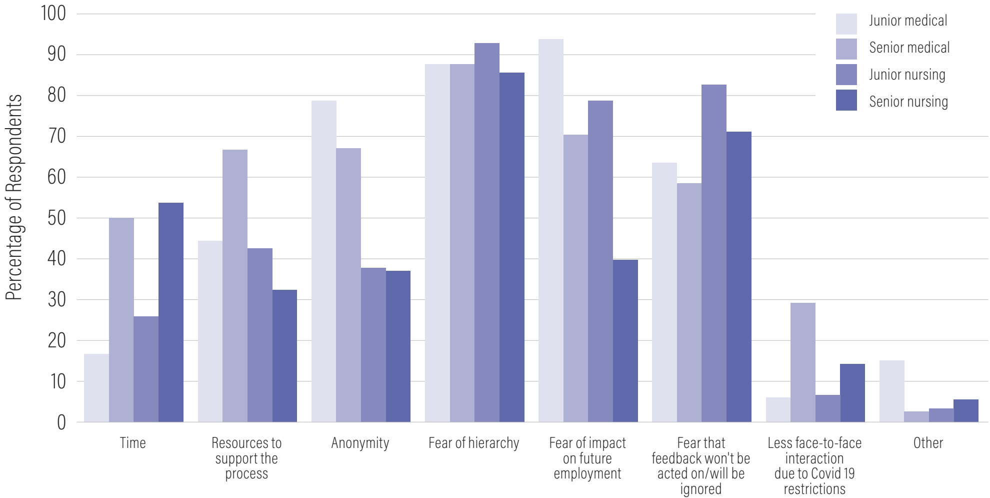
Table 2

Feedback-Up Participation and Preferences

	Medical		**Nursing**	
	Junior n(%)	**Senior** n(%)	**Junior** n(%)	**Senior** n(%)
Total survey participants	33(100)	34(100)	29(100)	35(100)
Currently gives/receives feedback up	9(27)	20(59)	12(41)	15(43)
Does not currently give/receive feedback up but would like to	24(73)	14(41)	16(55)	20(57)
Does not currently give/receive feedback and does not want to	0(0)	0(0)	1(3)	0(0)
Preferred methods/processes (in those not giving/receiving feedback but would like to)				
Does not currently give/receive feedback up but would like to	24(100)	14(100)	16(100)	20(100)
Anonymous	20(83)	9(64)	13(81)	6(30)
Identifiable	4(17)	5(36)	3(19)	14(70)
Brief	13(54)	4(29)	12(75)	8(40)
Detailed	10(42)	10(71)	4(25)	12(60)
Verbal	1(4)	5(36)	6(38)	13(65)
Written (electronic or paper)	22(92)	9(64)	10(63)	7(35)
As needed	2(8)	1(7)	15(94)	14(70)
Regular and planned	22(92)	13(93)	1(6)	6(30)
Direct from staff member	2(8)	5(36)	5(31)	16(80)
From 3rd party	22(92)	9(64)	11(69)	4(20)

Figure 1

Barriers to Feedback Up From Junior to Senior Staff



Qualitative findings

Thirteen participants consented to be interviewed, 12 of whom were interviewed (one participant was not available). Interviewed participants included 10 doctors (5 junior and 5 senior) and 2 nurses (1 junior and 1 senior). Six themes were derived from the interview data and the open-ended survey responses: discomfort with feedback up, power dynamics, unclear expectations, no one size fits all, limited time and opportunity, and tensions in feedback purpose and validity. For each theme, perspectives of medical and nursing staff were similar across the junior cohorts. Senior staff were also aligned in their perspectives irrespective of discipline. The themes are discussed below, with reference to junior and senior staff perspectives, and where relevant, highlighting variations in perspectives between medical and nursing staff. Illustrative quotes are included in Table 3.

Table 3

Illustrative Quotes for the Six Themes

Theme	Example Quote
Discomfort with feedback up	"No, not that they're not really nice, but I think it's like, quite intimidating" (JS–M 3).
	"In general, like, no, I don't really feel comfortable giving feedback to the senior staff" (JS–N 4).
	"One thing you get used to is not being criticised. And so it's a bit startling to be criticised because it's something you're used to not happening" (SS–M 1).
	"Because even if you have that one on one, I don't know how comfortable you feel to address that to your one-line-up manager. You often just go there [to] talk about work, and then come back, but your feelings are often not able to articulate or communicate to that person" (SS–N 6).

Theme	Example Quote
Power dynamic	"And I think we're all probably A-type personalities who have imposter syndrome" (JS–M 1).
	"I think the thing that you always have in your mind is how will I get a job at the end of all of this, in terms of I need references; I need people to like me. … I don't want to, in any way, seem like a troublemaker, or that I have opinions that maybe aren't the most popular or the most easy to hear" (JS–M 1).
	"Who knows what they think, if they said something I didn't like. But they are people pleasers. Peadiatric trainees are all people pleasers; I'm a people pleaser. And I think it's difficult" (SS–M 1).
	"I don't think many or any of them would feel comfortable to give me direct negative feedback. And in many cases, that might not be appropriate" (SS–M 2).
	"I think, I mean, the most obvious, most obvious barrier to receiving feedback is obviously, there's obviously kind of a power relationship and just a typical kind of hierarchy, hierarchy idea that most students are not in" (SS–M 4).
Unclear expectations	"There aren't enough formal processes in order to give feedback, with difficulty knowing the process of who to give feedback to and how" (JS–M survey).
	"But yeah, I guess I would like more of an opportunity to give constructive feedback. But yeah, it's kind of difficult, because it's like, there's no like formal or informal process" (JS–N 4).
	"I don't know if they do it here, but some EDs, they have a report on every shift. And at the end of every shift, you're expected to get this form and write down something about the shift. … So I think if you were going to do something, and you wanted to do it in a big way, that would be the thing to do. Something that was just an expected normal part of something everybody did every single day" (SS–M 1).
	"There needs to be a more formal, rigorous and regular feedback mechanism for the JMS to comment on the SMS" (SS–M survey).
No one size fits all	"I'm aware how real consequences are when you report things. … So, I don't know how you logistically carry that out and deal with everyone's fears and concerns and create a safe environment to give feedback and to receive feedback" (JS–M 1).
	"Yeah, I think ideally, it should be mandatory, as long as it's still serving a purpose and not just another form for tick boxes making everyone frustrated" (JS–M 2).
	"I think everybody is over surveys, so you can't do it too often. So, you've got a balance between getting it from lots of people, getting it in detail and getting it often" (SS–M 1).
	"There's pros and cons. No system is perfect" (SS–M 3).
Limited time and opportunity	"Not a lot of opportunity to have face to face feedback/know which seniors to give feedback to" (JS–M survey).
	"Finding the right forum is also really difficult. … Like it's not, it doesn't happen by chance. So you actively have to create the opportunity to give the feedback, which is really challenging" (JS–M 1).
	"One of the other issues is that we keep moving around so much. So, you know, the registrars are on the ward for the whole term, but the residents now and you know, they're here, they're there, they're up and down. And I'm only on for 2 weeks at a time. So you know, you don't really have the opportunity to, you have to very quickly get to the point where they feel safe about it" (SS–M 1).

Theme	Example Quote
Limited time and opportunity *continued*	"Everyone . . . I think is tight on time at the moment . . . so I think time is a biggie; that's one thing. And then the person's approachability. Like, they really want to hear what we have to say" (SS–N 6).
Tensions in feedback purpose and validity	"I think, if the person before and after me said similar things, and a pattern was recognised, things could be improved. Because having spoken to other people in that job, I have heard similar feedback, but again, nobody ended up telling anyone about that feedback, and I don't think anything has changed" (JS–M 2).
	"Like, surely over time, it would like if they start seeing patterns and people saying the same things that it would surely you would think, like help instigate change" (JS–N 4).
	"Yeah. So I always asked for feedback and encourage feedback from the junior staff. But I also understand that'd be very hard for them to give it or if they do, they just say that, you know, I guess we'd sometimes do [*sic*] get positive feedback that things are going well, or that they've appreciated the weeks or my approach. But it's, I guess, hard to know, with positive feedback, whether it's valid or whether they're just trying to say the right things" (SS–M 2).

Note: JS = junior staff; SS = senior staff; M = medical; N = nursing

Theme 1: Discomfort with feedback up

Many junior staff discussed that feedback up to their seniors would be intimidating, stating that they would prefer not to give feedback due to their discomfort with the process. Many junior staff discussed their fear of confrontation or reprimand, and some expressed feeling guilty about providing negative feedback. Some junior staff also expressed concerns about senior staff receptiveness to feedback as well as their capacity to change. Junior medical staff expected that junior consultants would be more receptive to feedback than established senior consultants.

Many senior staff acknowledged that they feel uncomfortable receiving constructive feedback, describing that senior staff are not used to "being criticised". Some recognised the potential for a defensive reaction to feedback.

Theme 2: Power dynamics

"Imposter syndrome" was a barrier that was identified by some junior staff, who felt that they had limited experience in giving feedback so questioned their capability. Some suggested that senior staff also doubted their competence and that this would make a feedback conversation difficult.

Senior staff also discussed that the power imbalance between junior and senior staff would impact the delivery of feedback to senior staff. One senior medical staff member referred to junior medical staff as "people pleasers", recognising that the power differential could make junior staff reticent to provide honest feedback due to concerns about negative consequences for their own performance review or future career.

Theme 3: Unclear expectations

Junior staff discussed a lack of expectation as a reason for not giving feedback up to senior staff. Many junior staff suggested the need for a change in workplace culture, indicating that if feedback up was expected, senior staff would be more receptive to feedback. In addition, some junior staff stated that they had not been taught how to give feedback and requested training before initiation of such a process. Some staff reflected on practices used in other countries, where feedback is "part of the process" and, therefore, occurs more regularly. A "formulated feedback system" or "specific framework" were recommended to make feedback to senior staff easier.

Similarly, many senior staff commented on the need for a change in feedback culture and the need to make feedback up a regular expectation. Contrasting this, one senior staff member stated that they did not "want to be harnessed to a system of feedback" and another commented that "direct negative feedback to senior staff would not be appropriate".

Theme 4: No one size fits all

Both junior and senior staff discussed the advantages and disadvantages of different systems of feedback up, acknowledging that there is no perfect solution. Some junior staff felt that anonymous feedback was more likely to provide meaningful information, while also protecting junior staff. Others noted disadvantages with anonymous feedback, including a lack of accountability and challenges in remaining anonymous in a small department. In the context of the hospital's hierarchical working environment, some junior staff suggested the need for a "buffer" or "third party" between the giver and receiver of feedback. Some junior staff suggested that "feedback is sit down and discuss", whilst others indicated that verbal feedback is not ideal in all situations, especially with constructive feedback. Senior staff similarly recognised advantages and challenges with different feedback systems.

Theme 5: Limited time and opportunity

Many junior staff commented that there are limited opportunities for feedback up, either because senior staff are time poor or because of limited contact between junior and senior staff. Short rotations were another factor making feedback "someone else's problem".

Many senior staff also commented on clinical teams being "stretched", and some feared that feedback from junior staff would add to the list of mandatory tasks. Senior nursing staff described the lack of a direct relationship between junior and senior nursing staff and limited contact between one another due to shift work.

Theme 6: Tensions in feedback purpose and validity

Both junior and senior staff recognised that feedback up provides senior staff with an opportunity for reflection and growth. However, the perceived purpose of feedback up exposed tensions between junior and senior staff perceptions.

Several junior staff discussed that regular feedback up would enable negative "patterns of behaviour" in senior staff to be identified and addressed. The junior staff indicated that without feedback, these behaviours often go unreported, unrecognised and unchanged.

In contrast, many senior staff articulated a sense of not knowing what junior staff think of them and the need to make assumptions. There was a sense that many would be seeking affirmation of their practice through feedback. Some senior staff stated that they proactively seek feedback when supervising junior staff but that they are not always sure about the validity of the junior staffs' responses due to the barriers that have been discussed. Some suspect that the feedback may be biased or excessively positive.

Discussion

Our research demonstrates that most staff perceive feedback up to be important in our hospital. Despite this, only a small proportion of staff currently engage in feedback up due to several associated challenges, including discomfort, the impact of the power differential amongst staff, a lack of expectation and uncertainty regarding the best process. Furthermore, there is a clear tension in our institution among junior and senior staff as to the purpose and validity of feedback up, which should inform plans for implementation.

The potential benefits of feedback up in improving skills in feedback discussions and communication within teams, described by Myers and Chou (2016), were supported by our findings, with junior staff indicating a desire to share experiences and develop skills in feedback delivery. Introducing this skill early in their careers could help develop feedback competencies, preparing junior staff to handle more complex feedback down conversations in the future. Senior staff similarly recognised the value of positive and constructive feedback, with positive feedback reinforcing good practices and performance and constructive feedback facilitating improvements. Acknowledging different practice proficiencies was identified to benefit not only senior staff but also junior staff, especially when provided with effective supervision.

Unsurprisingly, the main barrier to feedback up is the power differential amongst staff, which is also described in other organisations (Janss et al., 2012; Myers & Chou, 2016). The hierarchical system in healthcare is likely to be the cause for biased or excessively positive feedback described by some of our senior staff, a finding in common with other authors who described that learner feedback could be "brief", "vague" and "generic" (Wisener et al., 2023). Junior staff preferring to provide anonymous written feedback via a third party is likely to be related to the discomfort associated with this power differential.

In addition to the hierarchy, we identified a number of other barriers, including junior staff fearing that senior staff would not be receptive or respond to their feedback, which was also recognised as a barrier to feedback up by Ramani et al. (2022) in their institution in the United States of America.

Perhaps it is the tension between stakeholders in their motivation for feedback up that deserves the greatest attention. The success of a feedback-up process is likely to be dependent on our ability to address the issue that, for senior staff, feedback up promises the hope of validation, while for junior staff, it offers a course for correction of their senior colleagues' shortcomings. In other contexts, such as the United States of America, further complexity is added when feedback from junior staff has a direct impact on senior staff pay and promotion (Cousar et al., 2020). This tension requires proactive management to ensure feedback literacy of all participants.

To optimise feedback literacy, or "make the most of feedback" (Quigley, 2021), individuals receiving feedback need to appreciate feedback, make judgements of the feedback, manage affect and then take action (Carless & Boud, 2018). Traditionally, those targeted for feedback literacy are junior staff, with senior staff supporting them to be receptive to feedback. However, in the context of feedback up, senior staff members need to listen to feedback, reflect on it and make a positive change. Based on our data, it is likely that some senior staff will judge the feedback, knowing that it has been given by less experienced staff, and question the credibility of the content. Similarly, some senior staff will have a negative emotional response to constructive feedback. They may not receive the validation that they expected, and the feedback may conflict with their sense of self. Carless and Boud (2018) discuss the potential negative emotional response that feedback can provoke and the importance of actively regulating this reaction to engage meaningfully with feedback. Part of the preparatory work should, therefore, go beyond explaining the process to preparing senior staff for these responses and considering how they may react to the feedback. The use of a third-party intermediary could assist this process of reflection. Furthermore, collection of a large number of brief pieces of feedback is more likely to create a more balanced and valid picture over time.

Beyond feedback literacy, responding to the desire for feedback up in our organisation requires consideration of other factors. Twelve conditions enabling effective feedback were described by Henderson et al. (2019), four linked to the individual's capacity for feedback, four linked to the designs for feedback and four linked to the culture for feedback. With feedback up, the design, or a process for feedback, is essential and has been identified as a factor limiting engagement in our institution. A clear process is a first step and may itself help grow the feedback culture and institutional recognition of feedback (Henderson et al., 2019). Other strategies that could be utilised to create a culture of feedback include improving junior doctors' ability to give and receive feedback and providing them with skills to structure feedback encounters (de la Cruz et al., 2015). Similarly, having senior staff who are interested in self improvement for the purposes of clinical care delivery and

team performance would improve feedback culture. The call to action for a change in the "culture of feedback" was voiced by many of our study participants and is commonly referred to in the literature (Kraut et al., 2015; Ramani et al., 2019; Watling et al., 2014). There is an onus on us to respond.

Limitations

A limitation of our study is that interview recruitment took place during the Covid-19 pandemic, during which time our institution had temporarily discontinued all non-essential learning and professional development sessions. The low level of participation in interviews, particularly by nursing staff, has been attributed to this issue. The investigators feel that this limitation was mitigated, as open-ended survey data, where we had similar nursing and medical representation, was triangulated with interview data. It is also possible that the Covid-19 pandemic impacted responses, as at the time, pandemic-related stressors combined with clinical stressors impacted staff morale. In addition, to avoid further burden, we did not use member checking of results or transcripts as part of our methods, which may have refined our findings. Another limitation is the use of purposive sampling. Participants volunteering to contribute to our research were likely to be interested in feedback, which might lead to over-representation in the reported desire for engaging in the process. Lastly, our data is derived from a tertiary paediatric hospital in Australia, where feedback methods are not standardised, which may limit generalisability of our findings to other settings.

Future considerations

Based on our findings, we would support the implementation of a structured feedback-up system in healthcare institutions but would recommend careful planning and stakeholder engagement prior to implementation. This would include preparation of junior staff to ensure a process that they are comfortable with and of senior staff to ensure that they are receptive to junior staffs' feedback. In our setting, a feedback-up system is being developed, whereby anonymous online feedback from junior staff will be delivered to senior staff by a third party.

Future research examining junior and senior staffs' experiences of a feedback-up system would be valuable in supporting those looking to implement similar initiatives in their institutions.

Conclusion

Feedback is essential for learning, and in our institution, most staff recognise the unique value of feedback up. Despite this, there is inconsistent and low engagement in feedback up, which is attributed to several barriers, including hierarchy. We believe that providing well-defined expectations, clear processes and support in engaging in feedback up would improve acceptance, ultimately leading to improved feedback literacy and a better culture of feedback.

Conflicts of interest and funding

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Appendix A

Junior and Senior Staff Survey Questions

Junior Staff Survey	
I am	☐ Junior medical staff ☐ Junior nursing staff
I believe giving feedback to senior staff is:	☐ Not important ☐ Somewhat important ☐ Important ☐ Essential
I believe having a system or process to give feedback to senior staff is:	☐ Possible ☐ Not possible
I think the barriers to junior staff providing feedback to senior staff include: (please select one or more)	☐ Time ☐ Resources to support the process ☐ Anonymity ☐ Fear of hierarchy ☐ Fear of impact on future employment ☐ Fear that feedback won't be acted on/will be ignored ☐ Less face-to-face interaction due to Covid-19 restrictions ☐ Other, please specify:
I currently give feedback to senior staff.	☐ Yes ☐ No
An estimate of how frequently I give feedback is:	☐ Once a week ☐ Once a month ☐ Once every 3 months ☐ Once every 6 months ☐ Once a year ☐ Less than once a year
I currently give feedback to senior staff in the following ways: (please select one or more)	☐ Verbal—directly to the senior staff member ☐ Verbal—via a third party (e.g., head of department) ☐ Written (e.g., email, form)—directly to the senior staff member ☐ Written (e.g., email, form)—via a third party ☐ Word of mouth ☐ Other, please specify:
The domains I give feedback on are: (please select one or more)	☐ Clinical/medical expertise ☐ Communication ☐ Leadership ☐ Professionalism ☐ Education skills ☐ Research skills ☐ Other, please specify:

Please comment on what you think works well and/or could be improved about the feedback you currently give.	
I would like to give feedback to senior staff.	☐ Yes ☐ No. If no, why?
I would prefer to give feedback to senior staff in the following way:	☐ Anonymous ☐ Identifiable
	☐ Brief ☐ Detailed
	☐ Verbal ☐ Written (electronic or paper)
	☐ As needed ☐ Regular and planned
	☐ Directly from the staff member ☐ From a 3rd party
Senior Staff Survey	
I am:	☐ Senior medical staff ☐ Senior nursing staff
I believe receiving feedback from junior staff is:	☐ Not important ☐ Somewhat important ☐ Important ☐ Essential
I believe having a system or process to receive feedback from junior staff is:	☐ Possible ☐ Not possible
I think the barriers to junior staff providing feedback to senior staff include: (please select one or more)	☐ Time ☐ Resources to support the process ☐ Anonymity ☐ Fear of hierarchy ☐ Fear of impact on future employment ☐ Fear that feedback won't be acted on/will be ignored ☐ Less face-to-face interaction due to Covid-19 restrictions ☐ Other, please specify:
I currently receive feedback from junior staff.	☐ Yes ☐ No
I receive feedback at least:	☐ Once a week ☐ Once a month ☐ Once every 3 months ☐ Once every 6 months ☐ Once a year ☐ Less than once a year

<table>
<tr><td>I currently receive feedback from junior staff in the following ways: (please select one or more)</td><td>☐ Verbal—directly to the senior staff member
☐ Verbal —via a third party (e.g., head of department)
☐ Written (e.g., email, form)—directly to the senior staff member
☐ Written (e.g., email, form)—via a third party
☐ Word of mouth
☐ Other, please specify:</td></tr>
<tr><td>The domains I receive feedback on are: (please select one or more)</td><td>☐ Clinical/medical expertise
☐ Communication
☐ Leadership
☐ Professionalism
☐ Education skills
☐ Research skills
☐ Other, please specify:</td></tr>
<tr><td colspan="2">Please comment on what you think works well and/or could be improved about the feedback you currently receive.</td></tr>
<tr><td>I would like to receive feedback from junior staff.</td><td>☐ Yes
☐ No. If no, why?</td></tr>
<tr><td rowspan="5">I would prefer to receive feedback from junior staff in the following way:</td><td>☐ Anonymous
☐ Identifiable</td></tr>
<tr><td>☐ Brief
☐ Detailed</td></tr>
<tr><td>☐ Verbal
☐ Written (electronic or paper)</td></tr>
<tr><td>☐ As needed
☐ Regular and planned</td></tr>
<tr><td>☐ Directly from the staff member
☐ From a 3rd party</td></tr>
</table>

Appendix B

Interview Guide

Interview Guide	
Thank you for choosing to participate in this interview. I will be asking questions today about who you are, where you work, as well as your experience of or thoughts about providing feedback "up the chain". That is, when junior staff give feedback to those more "senior" to them in terms of who they report to according to their position in the hospital, not related to age nor experience. No information which identifies you or other people will be shared outside this interview.	
Question	**Prompt(s)**
Tell me about your current role in the hospital	Where? (stable/rotating) What level of seniority? Length of time in role? Who they report to/who reports to them?
Tell me about your experience of giving and receiving feedback in your role?	Who is feedback received from? Given to? How is it delivered? (written/verbal) Frequency? What is challenging? What is useful/valuable? Changed practice/outcomes?
What do you think of the idea of providing feedback "up the chain"?	Does it/could it work? Is it something you want? Why/why not? What benefits? What barriers?
Do you have any ideas about how feedback "up the chain" could work/work better in your workplace?	Any existing examples? What would be needed to support the feedback process? What would we need to be careful about? Should it be formalised/ mandatory/ informal?
Is there anything else about feedback that we have not discussed which you would like to share?	Can you tell me about what motivated you to participate in this interview?

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