

# TITLE: ORTHODONTIC TRAINEES' PERCEPTIONS OF EFFECTIVE FEEDBACK IN THE UK

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## TITLE

Orthodontic Trainees' Perceptions of Effective Feedback in the UK

## ABSTRACT

### Introduction

Feedback is an invaluable educational tool and is now widely used in education, despite some of the challenges and barriers to its implementation. Effective feedback in medical and dental education is a driver for improvement, by recognising good performance and identifying areas where improvement is required. This, in turn, can translate into better patient care, as feedback can positively impact on clinical performance. To date, there is limited literature about feedback mechanisms in orthodontic training and trainees' perceptions of how effective the various methods are.

### Methods

This was a national, cross-sectional questionnaire investigating orthodontic trainees' perceptions of effective feedback relating to chairside clinical training. An electronic questionnaire was developed and an invitation to participate was disseminated via the British Orthodontic Society (BOS) to postgraduate orthodontic trainees in the United Kingdom (UK). The population included all trainees at ST1-5 level who were BOS members, aged 25 years and above, including those appointed by Health Education England (HEE) and those who were non-HEE appointed. The questionnaire was open for an 11-week period between 10<sup>th</sup> February 2022 and 28<sup>th</sup> April 2022.

### Results

The questionnaire was completed by 68 participants with a mean age of 30.7 years and the response rate was approximately 30%. Trainees agreed that effective feedback improved their clinical skills and performance (99%) and 82% felt comfortable requesting feedback from their supervisors. The main perceived barrier to obtaining high quality in-depth feedback was perceived time pressures for educators (87%).

### Conclusions

This study demonstrated positive findings regarding trainees' perceptions of feedback processes in UK clinical orthodontic training. Perceived barriers to effective feedback included time constraints and the perception that trainers were too busy to provide in-depth feedback.

## KEY WORDS

Clinical Feedback, Orthodontic training, Feedback Perceptions

## INTRODUCTION

The use of feedback has gained momentum since its formal introduction into medical education in the 1980s but, despite being widely used in orthodontic education, there is little published in the literature with respect to the use of feedback in clinical training. It is an important area to investigate as feedback is a mandatory part of training and is a crucial aspect of trainee learning.

Feedback in education is a driver for improvement, by recognising good performance and identifying areas where improvement is required. In the medical and dental field, this in turn can translate into better patient care as feedback can positively impact on clinical performance<sup>1</sup>. The content, format and structure of a feedback session are considered important for an effective feedback encounter<sup>2</sup>. There are varied views among students and educators regarding what is considered “effective feedback”. Historically, feedback has been educator-driven and unilateral, with a prime focus on the learner accepting the content of the information given. However, the feedback process has now evolved and become more dynamic with active participation from both the trainee and educator<sup>3,4</sup>.

The current perceptions of trainees regarding feedback practices in medicine and dentistry are generally positive, however, the literature outlines that learners often perceive their feedback to be insufficient and/or suboptimal in a clinical setting<sup>4-6</sup>. Trainees in medicine and dentistry have an expectation that feedback will be timely, personalised and meaningful<sup>7</sup> and perceive it to be more effective when it is clear, specific and incorporates a positive language tone<sup>8</sup>.

There is limited literature in dentistry, and in orthodontics specifically, about feedback mechanisms and trainees’ perceptions of how effective these are. The aim of this study was therefore to ascertain trainees’ perceptions of effective feedback in postgraduate orthodontic clinical training with a view to enhancing current practices for provision of feedback.

## PARTICIPANTS AND METHODS

The investigation was a national cross sectional questionnaire study conducted with postgraduate orthodontic trainees in the United Kingdom (UK). The study received ethical approval from UCL Research Ethics Committee (Project Identification Number: 21701/001). Approval was also obtained from the BOS Clinical Governance Directorate to allow distribution of the survey via the British Orthodontic Society (BOS).

There were no published questionnaires identified from previous studies. The questionnaire was therefore developed *de novo* by members of the research team to ascertain trainees’ perceptions of effective feedback in postgraduate orthodontic training, with an emphasis on chairside clinical training as distinct from academic teaching. The questionnaire took several months to design following a thorough review of the literature and incorporation of expert opinion. Expert opinion was sought from members of the research team who have published widely within the field of orthodontics and are involved in many aspects of dental education. The questionnaire was piloted with three orthodontic trainees, all of whom were female. The pilot assessed the readability and highlighted areas requiring amendments such as minor wording changes to questions.

The majority of the questions were multiple-choice response format, and some of the questions included free text boxes for participants to provide further details about their experiences. The questionnaire consisted of a total of 20 questions and included specific questions which related to trainees' preferred method(s) of receiving feedback and how comfortable they felt requesting feedback. In addition, questions explored what aspects of feedback trainees found most useful and how they used this feedback to enhance their training. Trainees were asked to reflect on their own clinical encounters when answering the questions and apply them to given scenarios. Example questions can be found in Table 1 and the full questionnaire can be viewed in Appendix 1.

Potential participants included all trainees on Specialty Advisory Committee recognised postgraduate orthodontic training programmes in the UK who were members of the BOS, aged 25 years and above, including those appointed by Health Education England (HEE) and non-HEE appointed trainees. HEE trainees are appointed to Orthodontic training posts in the United Kingdom (UK) via a national recruitment process and hold a salaried position within the National Health Service (NHS). Those appointed outwith the UK national recruitment process (non-HEE trainees) are predominantly international trainees who are recruited via a competitive entry process held by the University at which they are enrolled onto a higher degree programme. The HEE and non-HEE trainees have very similar training experiences as they both only treat NHS patients in a hospital setting. The questionnaire was made available to all Orthodontic Specialty Trainees (ST) in years 1-5. Trainees in years 1-3 (ST1-3) were all qualified dentists undertaking their specialty training to become specialist orthodontists. Those in ST4-5 were specialist orthodontists carrying out a further two years of formal training in order to become hospital-based consultants.

The electronic questionnaire was set up on Opinio®, the UCL online survey platform. Participation by trainees was voluntary and it was completely anonymous with no personal data collected and no storage of the Internet Protocol (IP) address. Each participant could complete the questionnaire only once, which prevented participants from submitting the questionnaire multiple times.

An invitation to complete the questionnaire was circulated via email from the BOS administrator using the BOS Training Grades Group (TGG) mailing list; all trainees are eligible to be members of this group. An invitation and weblink to the online questionnaire with the consent form and participant information leaflet were included in the email sent to all BOS TGG members. A reminder email was sent three weeks after the initial contact. The questionnaire was open for an 11-week period between 10<sup>th</sup> February 2022 and 28<sup>th</sup> April 2022.

## RESULTS

There was a total of 68 completed responses. The exact percentage response was difficult to ascertain, as some of the emails included on the BOS TGG email list were not current. However, there was a total of 233 TGG members at the time the study was undertaken, suggesting a response rate of approximately 30%.

The mean age of respondents was 30.7 years (S.D. = 3.35 years), 72% (49/68) were female and 28% (19/68) were male. The majority of respondents were trainees at ST1-3 level (79%

54/68) and 21% (14/68) were ST4-5 trainees. Of the respondents, 62% (42/68) had been appointed by HEE and 38% (26/68) were non-HEE appointed.

Participants were initially asked to indicate on a 5-point Likert scale their agreement regarding the statement "*I believe feedback which is provided effectively can improve my clinical skills and performance.*" The results indicated that 99% (67/68) of trainees either agreed or strongly agreed that effective feedback could improve their clinical skills and performance. No responses were received for either 'disagree' or 'strongly disagree' and one participant was neutral.

Trainees were asked about their preferences regarding the method, frequency and timing of receiving feedback. Figure 1 illustrates that the single preferred method for receiving feedback was verbally at 51% (35/68). The term 'verbal feedback' in this study related to oral and spoken feedback given by trainers as opposed to written comments.

The vast majority of trainees (99%, 67/68) said that they received feedback which they had found useful and effective. When considering the actual frequency trainees thought they received feedback which they found useful and effective, '*each clinical session*' and '*approximately once a week*' were the most commonly selected options at 29% (20/68) and 43% (29/68) respectively (Figure 2).

The majority of trainees (56%, 38/68) felt that the best time to receive feedback was at the '*end of a clinical session after all patients have been seen*'. This was followed by '*immediately after the patient is seen*' (25% 17/68) (Figure 3).

Some examples of the free text comments respondents provided for this question included: "*I don't think that it is appropriate to make comments in front of patients and that things can be addressed afterwards.*," "*...as long as it is expressed in a professional and respectful way... so that patients don't lose trust in us*" and "*ideally at the end of clinical session - however this may not be feasible due to time constraints.*"

Trainees were asked if they felt comfortable requesting feedback from their supervisors and they were also asked from whom they would prefer to receive such feedback. In answering this question, trainees were asked to think back to specific clinical encounters where they felt the feedback was particularly useful and effective. The majority of participants (82%, 56/68) felt comfortable requesting feedback from supervisors, however, 18% (12/68) selected that they were not comfortable doing so. Examples of written comments from trainees as to why they did not feel comfortable included: "*depends on clinical time pressure*", "*yes from several of the consultants but no from some who may be overly critical or embarrass us in front of patients*" and "*sometimes supervisors are busy with other things*".

The majority of participants said they would prefer to receive feedback from the '*supervisor involved in the [clinical] encounter and who already has experience of working with me*', (35%, 24/68) or from '*someone who takes an interest in, and cares about, my training*' (28%, 19/68) (Figure 4).

Using a 5-point Likert scale, participants were asked how important they felt the following components of feedback were: specific, clear, comprehensive, actionable, contemporaneous,

measured and relative. *Specific, clear, comprehensive, actionable* and *contemporaneous* were all considered extremely important by the majority of trainees. *Measured* and *relative* were more often felt to be ‘somewhat important’, ‘neutral’ or ‘somewhat unimportant’ by trainees (Figure 5).

The questionnaire also explored potential barriers to effective feedback and Table 2 illustrates the responses to this question. The most frequently perceived barrier to receiving feedback was that educators were perceived as not having adequate time (87%, 59/68). Additionally, 38% (26/68) of respondents did not like to receive feedback *‘in front of others and would prefer this to be private’* and 34% (23/68) felt that some of their educators were *‘unapproachable’*.

## DISCUSSION

There is an increased emphasis on delivering effective feedback in dental education and this is important for both trainees and trainers, particularly as feedback moves towards a bi-directional pathway. This study looked at important aspects of feedback in orthodontic education in the UK, including the perceived barriers.

The demographics reflected that most respondents were female (72%, 49/68) and this is in keeping with an increasing trend for females in the specialty<sup>9,10</sup>. It may be that females were over-represented in this study as the General Dental Council’s (GDC) Registration Report in December 2022 shows that 52% (735/1403) of UK orthodontists were female<sup>11</sup>, however, this percentage is higher in training grades. It is also of note that females are more likely to respond to online surveys<sup>12</sup>. The mean age of trainees was 30.7 years, which is expected as trainees are usually in their late twenties when entering specialty training. The majority of trainees who completed the questionnaire were HEE appointed (62%, 42/68). All of the ST4-5 trainees were appointed via the HEE national recruitment process as that is the only route for appointment at that level. For ST1-3 trainees there was an almost equal split between those who were HEE appointed (28/54) and those that were non-HEE appointed (26/54). Non-HEE trainees are predominantly international trainees and cultural factors may have affected their perceptions regarding receiving feedback compared with their UK-based counterparts.

The most popular method of receiving feedback was verbally at 51% (35/68). This is supported in the literature whereby verbal feedback was valued by medical and dental students<sup>8,13</sup>. The results revealed that most trainees felt that they received feedback which they found to be useful and effective; the frequency with which this occurred was also asked and the most commonly selected responses were ‘once a week’ or ‘at each clinical session’ (Figure 2). This suggests that trainees have been able to engage and acknowledge the usefulness of feedback encounters, with only one trainee reporting ‘never’ receiving feedback which they found effective. It is possible that the trainee genuinely did not receive effective feedback or that the respondent might have underestimated the quality of feedback received and perceived the encounter as ineffective<sup>4-6</sup>.

The results demonstrated that most participants felt the best time to receive feedback regarding clinical encounters was at the end of that session after all patients had been seen. This finding was in keeping with a study conducted with dental students during clinical training where there was also a preference for feedback to be given immediately after a clinical

session<sup>13,14</sup>. The written comments provided for this question suggested that participants felt it was not appropriate to make certain comments in front of patients in case the patient loses trust in them. These comments were consistent with a previous study<sup>13</sup>, where trainees did not want to feel embarrassed in front of patients.

The majority of respondents were comfortable requesting feedback from their supervisors, although approximately a fifth (18% 12/68) of participants said they were not. The written comments provided suggested that those who were not comfortable seeking feedback were concerned about trainers who were perceived as being more critical. An interesting finding which was raised by some trainees was that trainers were also seen as being too busy with other tasks to provide feedback and it was felt that clinical time pressures played a large part. This was seen in the responses to the question which asked about the main perceived barrier to obtaining feedback where 87% (59/68) selected the option that educators did not have adequate time to provide in-depth feedback. Limited time has also been highlighted as a recognised barrier in feedback practices in medical education<sup>15,16</sup>. It is acknowledged that allocating more trainers to clinical sessions is unlikely to be feasible given the financial pressures that the National Health Service is currently under so alternative methods need to be explored to ensure that feedback can be provided most effectively. This may be overcome by encouraging trainees to proactively request feedback from their trainers at the end of clinical sessions or streamlining the treatment clinic to ensure sufficient time is available at the end to provide feedback. Feedback experiences in other clinical settings, for instance, private versus state funded healthcare may vary across the world due to differences in the supervision set up and numbers of patients being seen on a clinic. This would be an interesting area to explore in future studies.

The results demonstrated that participants liked to receive feedback from those involved with the actual clinical encounter and those who had experience of working with them, as well as a supervisor who took an interest in and cared about their training. This finding is supported by other studies in medical education where a significant factor determining effective feedback was the trainee's perception of the supervisor's commitment to them and if the trainee felt the supervisor cared about them and their training<sup>17-19</sup>. Furthermore, trainees placed importance on the emotional impact the feedback had on them and how it made them feel, as shown in a study conducted with medical students<sup>20</sup>.

The importance of the individual aspects of feedback were also highlighted in this study; trainees felt that specific and clear feedback were the most important components in the provision of effective feedback. Other research also found that students considered feedback to be more effective when it was clear and specific<sup>8</sup> and shortcomings were found in delivery mechanisms where feedback was not specific enough<sup>21</sup>. Contemporaneous feedback was also considered an important component of feedback in the current study as highlighted by respondents wanting feedback immediately after the session.

There are limitations to the current study. When interpreting the results from the study, it must be borne in mind that around 70% of trainees did not respond and the data represented only around a third of trainees. In addition, not all UK based orthodontic trainees are members of the BOS and so the results may not fully represent perceptions of feedback processes for all orthodontic trainees. The study has also demonstrated the emphasis which is placed on trainers and trainees embracing an environment conducive to reflective learning and

development. The GDC 'Standards for Specialty Education' highlight that it is a requirement for educators to encourage '*trainees to reflect on their clinical and professional practice*'<sup>22</sup>.

Healthcare, including dentistry, has also faced enormous challenges owing to the COVID-19 pandemic. The postgraduate orthodontic trainees in this study, were training during the COVID-19 pandemic and it is likely that their training was impacted by this, for example, interruptions to clinical training, a delayed start to commencing the orthodontic programme or trainees may have been redeployed to other departments at times. Therefore, trainees' perceptions of feedback regarding their clinical training and experiences were potentially unique and may not be truly representative of trainees who trained before the global pandemic. This is a further limitation of the study but the results still provide an important overview of the current situation.

## CONCLUSIONS

- The results demonstrated positive findings regarding trainees' perceptions of feedback processes in UK orthodontic training, with the majority of trainees agreeing that effective feedback can improve clinical skills and performance.
- The preferred method of receiving feedback was verbal and it was preferred that this should be provided contemporaneously at the end of the clinic. Specific and clear feedback was considered important.
- Almost a fifth of trainees did not feel comfortable requesting feedback from their supervisor and this was generally due to clinical time pressures and supervisors being perceived as too busy with other tasks. This aspect should be considered by training units and discussed with trainees/trainers to ensure feedback is seen as a priority.

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## FIGURES AND TABLES

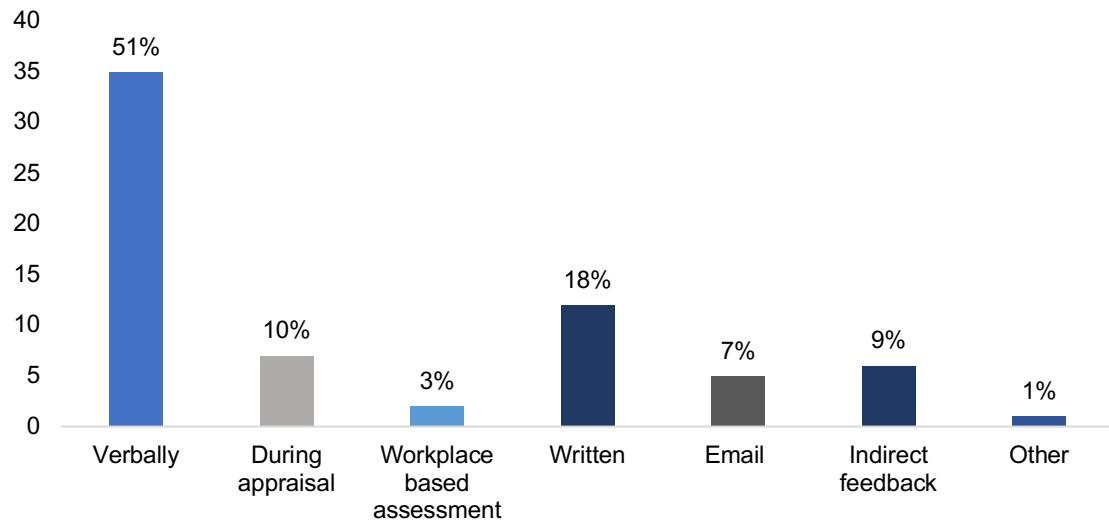


Figure 1: Trainees' single preferred method of receiving feedback  
(NB: Due to rounding of the figures, percentages do not add up to 100%)

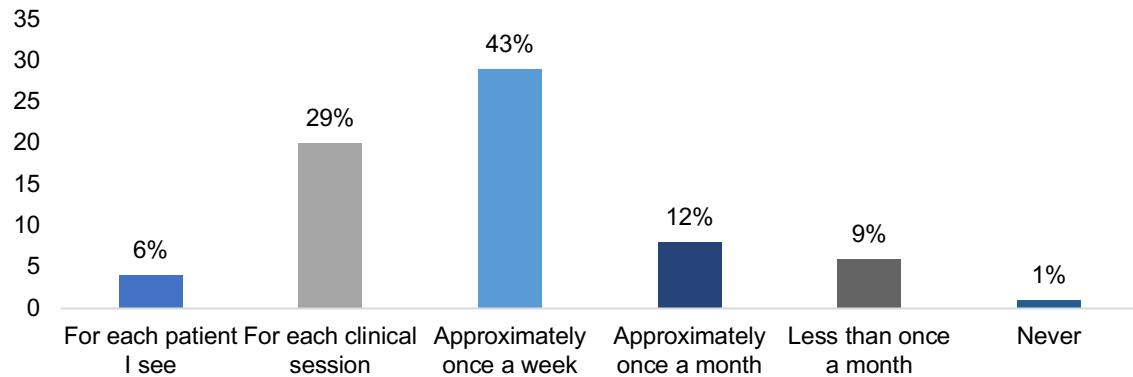


Figure 2: Responses to the question asking how frequently trainees thought they received feedback which they found useful and effective

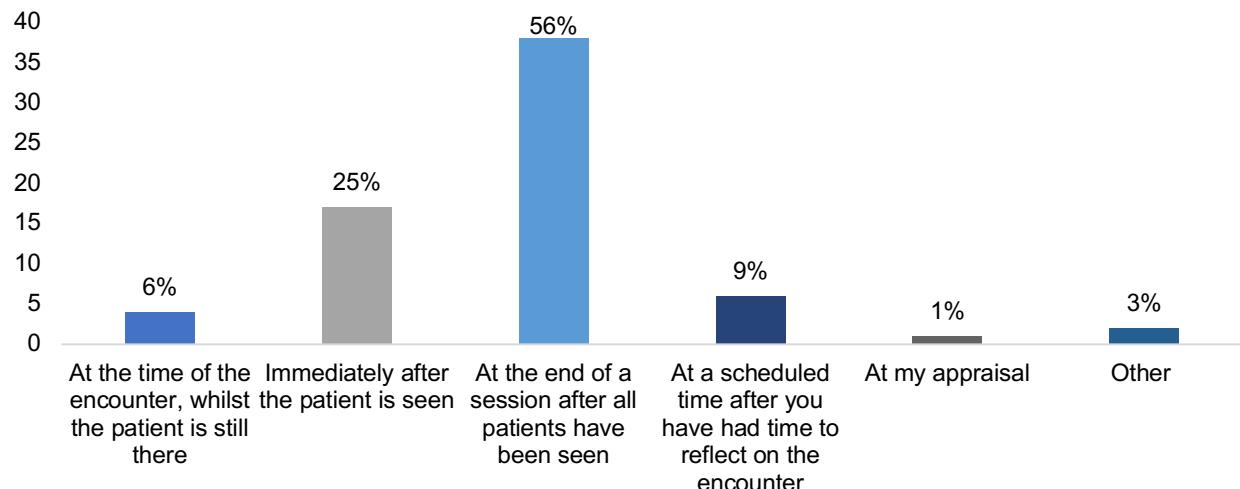


Figure 3: A chart depicting when trainees feel the best time to receive feedback regarding a clinical encounter

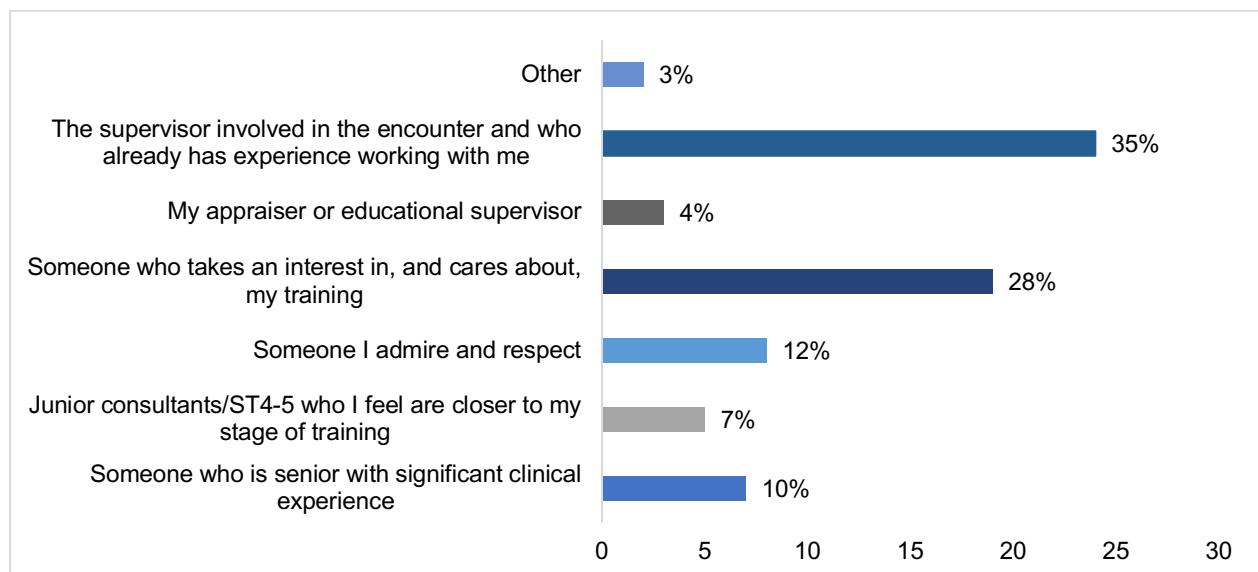


Figure 4: A bar chart depicting who trainees most liked to receive feedback from  
(NB: Due to rounding of the figures, percentages do not add up to 100%)

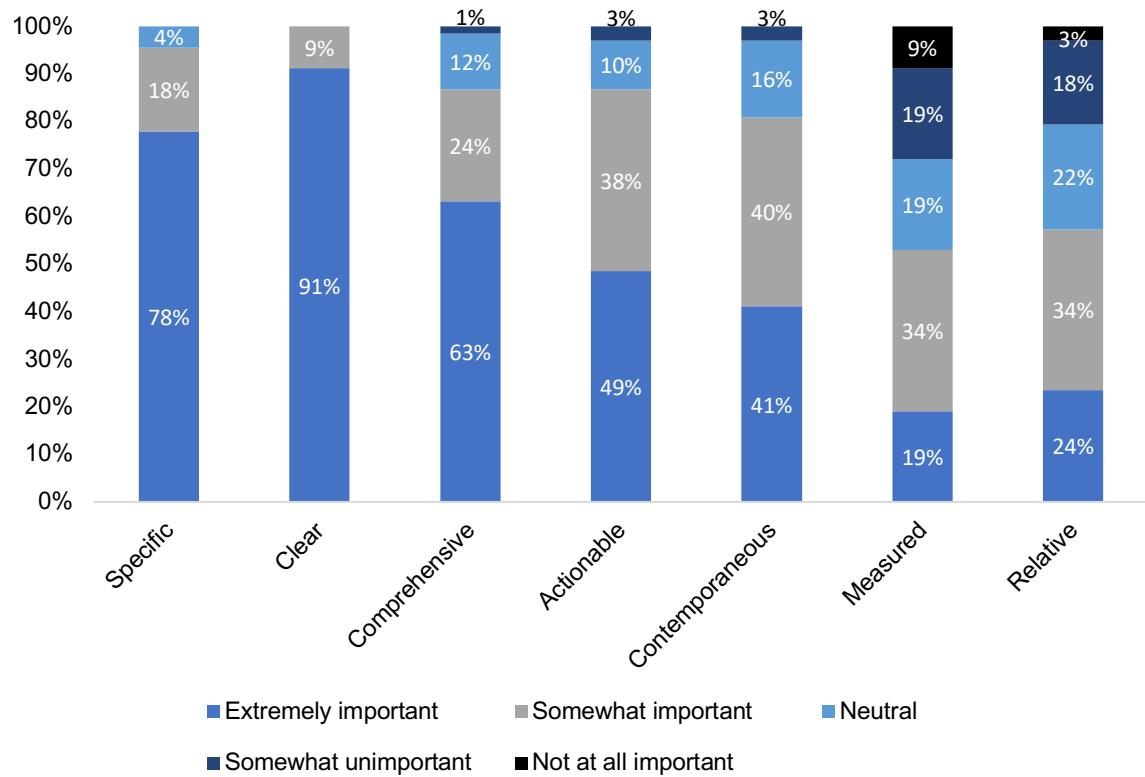


Figure 5: “What is the importance of each of the following components in the provision of effective feedback?”  
 (NB: Due to rounding of the figures, percentages do not all add up to 100%)

1	<p>"I believe feedback which is provided effectively can improve my clinical skills and performance." Please select the response which is closest to how you feel regarding this statement.</p> <ul style="list-style-type: none"> <li><input type="radio"/> Strongly agree</li> <li><input type="radio"/> Agree</li> <li><input type="radio"/> Neutral</li> <li><input type="radio"/> Disagree</li> <li><input type="radio"/> Strongly disagree</li> </ul>
2	<p>Which is your preferred method of receiving feedback?</p> <ul style="list-style-type: none"> <li><input type="radio"/> Verbally</li> <li><input type="radio"/> During appraisals</li> <li><input type="radio"/> As part of Workplace Based Assessments (WBAs)</li> <li><input type="radio"/> Written</li> <li><input type="radio"/> Email</li> <li><input type="radio"/> Indirect feedback i.e. supervisor entrusting or removing certain responsibilities to/from you</li> <li><input type="radio"/> Other (please give details)</li> </ul>
3	<p>How frequently do you think you receive feedback which you find useful and effective?</p> <ul style="list-style-type: none"> <li><input type="radio"/> For each patient I see</li> <li><input type="radio"/> For each clinical session</li> <li><input type="radio"/> Approximately once a week</li> <li><input type="radio"/> Approximately once a month</li> <li><input type="radio"/> Less than once a month</li> <li><input type="radio"/> Never</li> </ul>
4	<p>When do you feel is the best time to receive feedback regarding a clinical encounter?</p> <ul style="list-style-type: none"> <li><input type="radio"/> At the time of the encounter, whilst the patient is still there</li> <li><input type="radio"/> Immediately after the patient is seen</li> <li><input type="radio"/> At the end of a session after all patients have been seen</li> <li><input type="radio"/> At a scheduled time after you have had time to reflect on the encounter</li> <li><input type="radio"/> At a point later in time when a similar clinical situation arises</li> <li><input type="radio"/> At my appraisal</li> <li><input type="radio"/> Other (please give details)</li> </ul>
5	<p>Do you feel comfortable requesting feedback from a supervisor?</p> <ul style="list-style-type: none"> <li><input type="radio"/> Yes</li> <li><input type="radio"/> No (If you have answered no, please could you give some details)</li> </ul>

6	<p>Who do you most like to receive feedback from? In answering this question, you may wish to think back to specific clinical encounters, where you received feedback which you felt was useful and effective.</p> <ul style="list-style-type: none"> <li><input type="radio"/> Someone who is senior with significant clinical experience</li> <li><input type="radio"/> Junior consultants/ST4-5 supervisors who I feel are closer to my stage of training</li> <li><input type="radio"/> Someone I admire and respect</li> <li><input type="radio"/> Someone who takes an interest in, and cares about, my training</li> <li><input type="radio"/> My appraiser or educational supervisor</li> <li><input type="radio"/> The supervisor involved in the encounter and who already has experience working with me</li> <li><input type="radio"/> Other (please give details)</li> </ul>
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*Table 1: Sample of questions included in the questionnaire.*

	Frequency	Percentage (%)
Educators do not have time to provide in-depth effective feedback	59	87
I do not like receiving feedback in front of others and would prefer this to be private	26	38
Educators are unapproachable when I would like feedback	23	34
I do not personally have time to seek feedback	11	16
I do not want negative feedback on my record	6	9
Other	5	7
I do not agree with the feedback I receive	2	3
I do not find feedback useful	1	1

*Table 2: Potential barriers to obtaining feedback [ N.B. This question allowed for multiple responses so figures do not add up to 100%]*

## APPENDIX 1: ONLINE QUESTIONNAIRE

### ORTHODONTIC TRAINEES' PERCEPTIONS OF EFFECTIVE FEEDBACK IN POSTGRADUATE TRAINING

#### Department: Orthodontics, Eastman Dental Institute

This study has been approved by the UCL Research Ethics Committee: Project ID number: 21701/001

Further details on the survey can be found here in the information leaflet: [Participant Information Sheet for Orthodontic Trainees.pdf](#)

Name and Contact Details of the Principal Researcher: Professor Susan Cunningham ([S.Cunningham@ucl.ac.uk](mailto:S.Cunningham@ucl.ac.uk))

Name and Contact Details of the UCL Data Protection Officer: Alexandra Potts ([Data-Protection@ucl.ac.uk](mailto>Data-Protection@ucl.ac.uk))

#### CONSENT FOR ORTHODONTIC TRAINEES

I confirm that I understand that by ticking each box below I am consenting to this element of the study. I understand that it will be assumed that unticked boxes means that I DO NOT consent to that part of the study. I understand that by not giving consent for any one element that I may be deemed ineligible for the study.

- I confirm that I have read and understood the Participant Information Sheet for the above study. I have had an opportunity to consider the information and what will be expected of me. I have also had the opportunity to ask questions which have been answered to my satisfaction and am happy to take part in the questionnaire.
- I confirm that I am at least 25 years old and I am currently an StR/ST4-5 level orthodontic trainee in the UK (NB: including all UK based and international trainees).
- I understand that the data I provide for this study will be stored anonymously and securely. It will not be possible to identify me in any publications. Useful comments added to the questionnaire may be used in publications/presentations, but no information which could lead to identification of individuals or hospitals will be included.

- I understand that once I have commenced the study, it is not possible to withdraw my data as the data are anonymised. I understand this also applies if I discontinue the questionnaire mid-way.
- I understand that there are limited personal benefits for me taking part in this study, but it is hoped this will benefit future trainees.
- I understand that I will not benefit financially from this study or from any possible outcome it may result in in the future. I voluntarily agree to take part in this study.

Feedback is an effective teaching strategy to enhance learning in Orthodontic education. Effective feedback is a driver for improvement by recognising good performance and identifying any potential areas of weakness.

The purpose of this questionnaire is to ascertain your views and perceptions of current feedback processes **during your clinical training**. This may, for example, be during a new patient consultant clinic, multidisciplinary clinic, or a personal treatment session. When considering these questions, you may find it useful to think back to a feedback encounter which best corresponds to the question. Please do not reply regarding academic feedback, for example, written examination feedback, feedback on thesis/project etc.

Q1. Please state your age in years.

Q2. What gender are you?

Please select one option.

- Male
- Female
- Prefer not to say

Q3. What is your grade of training?

Please select one option.

- Specialty Training (Year 1)
- Specialty Training (Year 2)
- Specialty Training (Year 3)
- ST4-5

Q4. What training post are you in?

Please select one option.

- HEE trainee appointed through the UK National Recruitment process (salaried posts)
- Non-HEE trainee (e.g. self-funded/government funded)

Q5. How do you currently receive feedback related to your clinical training?

Please select all options that apply to you.

- Verbally
- During appraisals
- As part of Workplace Based Assessments (WBAs)
- Written
- Email
- Indirect feedback i.e. supervisor entrusting or removing certain responsibilities to/from you
- Other (please give details)

Q6. Which is your preferred method of receiving feedback?

Please select one option.

- Verbally
- During appraisals
- As part of Workplace Based Assessments (WBAs)
- Written
- Email
- Indirect feedback i.e. supervisor entrusting or removing certain responsibilities to/from you
- Other (please give details)

Q7. How frequently do you think you receive feedback which you find useful and effective?

Please select one option.

- For each patient I see
- For each clinical session
- Approximately once a week
- Approximately once a month
- Less than once a month
- Never

Q8. I believe feedback which is provided effectively can improve my clinical skills and performance.

Please select the response which is closest to how you feel regarding this statement.

Strongly agree       Agree       Neutral       Disagree       Strongly disagree

Q9. When do you feel is the best time to receive feedback regarding a clinical encounter?

Please select one option.

- At the time of the encounter, whilst the patient is still there
- Immediately after the patient is seen
- At the end of a session after all patients have been seen
- At a scheduled time after you have had time to reflect on the encounter
- At a point later in time when a similar clinical situation arises
- At my appraisal
- Other (please give details)

Q10. In which setting do you prefer to receive clinical feedback?

Please select one option.

- Chairside on the clinic
- Non-clinical private setting Virtual meeting e.g. Zoom or Microsoft Teams Email
- Other (please give details)

Q11. Do you feel comfortable requesting feedback from a supervisor?

- Yes
- No (If you have answered no, please could you give some details)

Q12. Who do you most like to receive feedback from? In answering this question, you may wish to think back to specific clinical encounters, where you received feedback which you felt was useful and effective.

Please select one option.

- Someone who is senior with significant clinical experience
- Junior consultants/ST4-5 who I feel are closer to my stage of training
- Someone I admire and respect
- Someone who takes an interest in, and cares about, my training
- My appraiser or educational supervisor
- The supervisor involved in the encounter and who already has experience working with me
- Other (please give details)

Q13. What feedback structure/model from the options below do you think would be most effective in your own training?

Please select one option.

- Pendleton's Rules: This is where supervisors concentrate on the positive first and then say what could have been done better.
- Agenda-Led Outcome Based Analysis (ALOBA): This is where the supervisor asks the trainee what difficulties they experienced and what they would like help with. The supervisor will then offer specific suggestions for improvement.
- Chicago Model: This is where your supervisor provides positive feedback first and then encourages you to reflect on what you did well and not so well before suggesting methods of how you can improve.
- Other (please give details)

Q14. In your opinion, what is the importance of each of the following components in the provision of effective feedback?

Please select one option per row.

	Extremely important	Somewhat important	Neutral	Somewhat unimportant	Not at all important
Specific - whereby precise information and feedback is given relating to the encounter	<input type="radio"/>				
Clear - feedback which is easy to understand and is not ambiguous	<input type="radio"/>				
Comprehensive – feedback which is detailed and complete	<input type="radio"/>				
Actionable - such that a measurable goal can be set around that feedback	<input type="radio"/>				
Contemporaneous - given at the time of the clinical encounter	<input type="radio"/>				
Measured - consists of a combination of marks/grades with comments	<input type="radio"/>				
Relative - tells me my position relative to my peers	<input type="radio"/>				

Q15. Why do you think feedback is useful to you personally?

Please select all options that apply to you.

- To improve my clinical skills
- To understand my weaknesses
- It helps me learn from any mistakes I make
- On a personal level it allows me to grow in my career
- To understand my strengths
- It improves my confidence
- I need feedback to ensure I pass assessments
- I do not think it is particularly useful to me
- Other (please give details)

Q16. I believe that feedback is most useful when my marks are low or my performance requires improvement.

Please select the response which is closest to how you feel regarding this statement and tell us why.

Strongly agree       Agree       Neutral       Disagree       Strongly disagree

Q17. Think of a situation where your clinical performance has been suboptimal, and feedback was important. Please select your preferred choice of how you would like this feedback delivered to you in a situation such as this.

Please select one option.

- Feedback which is framed in a positive light
- Feedback which is provided in a constructive and balanced way
- Feedback presented in a blunt and honest manner

Q18. What do you think the potential barriers to obtaining feedback might be?

Please select all options that apply to you.

- Educators do not have time to provide in-depth effective feedback
- I do not personally have time to seek feedback
- Educators are unapproachable when I would like feedback
- I do not agree with the feedback I receive
- I do not like receiving feedback in front of others and would prefer this to be private
- I do not want negative feedback on my record
- I do not find feedback useful
- Other (please give details)

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Q19. Consider times when you have been praised and received positive feedback about a clinical encounter. How do you use this feedback?

Please select all options that apply to you.

- I set some personal targets
- I compare it with other feedback I have received to see if there is a theme and is therefore valid
- I compare it against past feedback to see if I am progressing appropriately
- I compare it with feedback my colleagues have received to gauge whether I am performing appropriately I use it as a motivator to work even harder
- I do not consider it further usually
- Other (please give details)

Q20. Consider times when you have received feedback about a clinical encounter where you have not performed as well as you would have liked. How do you use this feedback?

Please select all options that apply to you.

- I set some personal targets
- I compare it with other feedback I have received to see if there is a theme and therefore valid or if it is an isolated incident I compare it against past feedback to see if my clinical performance is becoming poorer
- I compare with feedback my colleagues have received to gauge whether I am on track or underperforming
- I use it as a motivator to work harder
- I do not consider it further usually
- Other (please give details)

Thank you very much for taking part in this research. It is much appreciated.

If you have any queries please do not hesitate to contact me on [Rachna.Chawla.20@ucl.ac.uk](mailto:Rachna.Chawla.20@ucl.ac.uk).