



Trainees' perceptions of course quality in postgraduate General Practice training in Ireland

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Abstract

Background Postgraduate General Practice (GP) training is structured around a formal curriculum set out by the training body. It also includes a “hidden curriculum” of experiential workplace learning in a heterogenous learning environment [1]. There is no formal national annual survey of GP trainees and their views in Ireland.

Methods The research aim was to evaluate what the trainee population think of their training environment, and to analyse the contributory factors. A mixed methods cross-sectional survey was distributed to all third- and fourth-year GP trainees ($N=404$). The Manchester Clinical Placement Index was adapted for the study.

Results The response rate was 30.94% ($N=125$). Questions 1 to 7 provided a description of the characteristics of the study population. The remainder of the questions focused on aspects which relate to constituents of the learning environment. The responses were broadly and convincingly positive and supportive of the good work being done in GP training and by trainers in Ireland today across both qualitative and quantitative findings. One notable exception was in the area of feedback where single handed fourth year practices were found to be underperforming.

Conclusions The current research findings were broadly positive and supportive of the good work being done in GP training and by trainers in Ireland today. Further research will be needed to validate the study instrument and to further refine some aspects of its configuration. The implementation of such a survey on a regular basis may have merit as part of the quality assurance process in GP education alongside existing feedback structures [2].

Keywords Medical education · General practice · Postgraduate training

Introduction

GP training in Ireland is provided through fourteen training schemes under the auspices of the Irish College of General Practitioners (ICGP), the national GP training body. Trainees spend four years on their training programme. The first 2 years are in hospital-based rotations working in NCHD roles and the final 2 years are spent in year-long training attachments with an individual GP trainer in a dedicated training practice. Owing to the heterogenous nature of medical practice and the varied working and business arrangements in each GP surgery, there is considerable variation

in the approaches taken to training. As well as the formal curriculum and core competencies expected of trainees, which are set out by WONCA (World Organization of Family Doctors) and the ICGP, a significant part of GP education is achieved in experiential workplace learning through the master-apprentice relationship. This is often described as the “hidden curriculum” and it covers a range of implicit lessons learnt through practice and interpersonal interactions in areas such as cultural competence, achieving medical professionalism, and dealing with uncertainty [1]. There is no formal national annual trainee survey dedicated to GP trainees and their views.

In Ireland, the acceptability of the postgraduate education to each GP trainee and their perceptions of training is assessed for the most part on an individualised basis at local GP training scheme level through one-to-one meetings between each trainee and their trainer where they receive feedback and discuss their progress every 6 months. At these meetings the trainee gives an assessment of the trainer's

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performance while reciprocally they received feedback on their own progress in training. Trainees' reported feedback and perceptions are also the principal means of assessing both the quality of training delivered and trainer competency in the programme [3].

In effect, there is a link between trainees' giving their perceptions of training and their receipt of competency accreditation. It is the authors' concern that this may create a bias towards positive trainee feedback on the quality of the learning environment and militate against expressing negative feedback as trainees may believe that providing negative commentary may preclude them from progressing on their training scheme [3].

This research study examines the experiences of trainees in third and fourth year of post-graduate training as these years are specific to GP practice-based training. It is hoped that this survey will shed light on how GP trainers interact with their trainees by allowing trainees an anonymised protected forum to express their opinions and, in so doing reveal how GP training is conducted in Ireland at present.

Methods

Study aim and design

The aim of this study is to assess what the trainee population think of their training environment, and to analyse the factors which help to create that environment. This was carried out using a mixed methods approach which was deployed using a cross-sectional research survey.

Study population and sampling

A questionnaire was distributed to all third- and fourth-year GP trainees ($N=404$). Prior approval for the study was requested from and granted by the ICGP. All trainees were included. No exclusion criteria were applied. Participants were incentivised to take part by entry into a raffle for a voucher. Typical expected response rates for this type of research, notwithstanding incentives, is 24% [4].

Study instrument

The Manchester Clinical Placement index (MCPI) was chosen as the instrument of choice for the current study [5]. The tool required adaptation as the original MCPI was validated in an undergraduate setting. This was carried out by expert panel review. The tool is henceforth termed the $MCPI_{adapted}$ (see Table 1).

Ethical considerations and data protection

Ethical approval was sought from and granted by the ICGP Clinical Ethics Committee and the Dundee University Ethics Committee prior to commencement.

Data analysis methods

Qualitative data was coded using Microsoft Excel Version 16.43 (Microsoft Inc, USA). done in accordance with the guidelines for thematic analysis using NVivo release 1.0 (QSR International, Australia) [6]. The descriptive statistics and statistical analysis were performed with SAS 9.4 (SAS Software, USA). For each multiple-choice question, responses were summarized as frequencies and proportions. Summary statistics were calculated for the total dataset and across the following strata: year of training, practice type and practice location. The final 10 questions in the questionnaire (Supervision, Reception and Induction, People, Entrustment, Monitoring, Modelling, Dialogue, Feedback, Facilities and Structure of the post) were part of a 10-item measurement index. For the original questionnaire the authors' subdivided items into the terms "training" and "learning environment" and was estimated according to the calculations:

$$\text{Learning environment} = (\text{Leadership} + \text{Reception} + \text{People} + \text{Facilities} + \text{Organization}) \times 100/30\%$$

$$\text{Training} = (\text{Instruction} + \text{Observation} + \text{Feedback}) \times 100/18\%$$

This subdivision is less applicable to postgraduate training and such a subdivision was not suggested in the adaptations made by the expert panel. The scoring for the current study was subsequently clarified through communication with the original study author which supported this adapted calculation [7]. The development of a GP trainee is the product of both the training they receive and the environment within which they receive it, hence the index was calculated as a score of all answers from the current 10-item questionnaire in this study [8]. The $MCPI_{adapted}$ percentage score for each respondent was therefore calculated as follows:

$$MCPI_{adapted} = \sum_{i=1}^{10} Question_i \times 100/60\%$$

The $MCPI_{adapted}$ is an overall score of each respondent and represents their satisfaction with the training environment. Therefore it represents a percentile and it exists to aide direct side by side comparison of each answer and in future it will provide a means of trending overall annual scores.

Table 1 Adapted Manchester Clinical Placement Index

Demographic Details

*1. Gender**Male**Female**2. Age**< 25**25–29**30–34**35–39**40–44**> 44**3. Year of training**Year 3**Year 4**4. Practice Type**Single handed**Group Practice**5. Practice Location**Rural**Urban**Mixed rural–urban**6. Year of graduation from medical school**Free text**7. Were you previously enrolled on another medical training scheme?**No**Yes—if so please specify below**Please specify**A. Supervision**There is supervision if one or more senior doctors take responsibility for your education and training**8. There was supervision of this training post**Please rate your agreement with this statement**Strongly agree**Agree**Somewhat agree**Neither agree nor disagree**Somewhat disagree**Disagree**Strongly disagree**9. Please add comments to either or both of the next two boxes**Strengths of supervision were ...**Weaknesses or ways supervision could be improved ...**B. Reception and induction**An appropriate reception and induction is a welcome that includes an explanation of how the post can contribute to your learning**10. There was an appropriate reception and induction to this training post**Please rate your agreement with this statement**Strongly agree**Agree*

Table 1 (continued)

Demographic Details

*Somewhat agree**Neither agree nor disagree**Somewhat disagree**Disagree**Strongly disagree**11. Please add comments to either or both of the next two boxes**Strengths of reception and induction were ...**Weaknesses or ways reception and induction could be improved ...**C. People**The support to your learning from people (like doctors, secretaries, receptionists, nurses, and others) you worked with in this post**12. I was supported by the people I worked with in this post**Please rate your agreement with this statement**Strongly agree**Agree**Somewhat agree**Neither agree nor disagree**Somewhat disagree**Disagree**Strongly disagree**13. Please add comments to either or both of the next two boxes**Strengths of any or all of the groups listed above were ...**Weaknesses of any of the groups listed above or ways they could contribute more...**D. Entrustment**Appropriate entrustment is being allowed to undertake clinical activities from which you can learn (activities at your level of competence, or slightly beyond it)**14. There was appropriate entrustment in this training post**Please rate your agreement with this statement**Strongly agree**Agree**Somewhat agree**Neither agree nor disagree**Somewhat disagree**Disagree**Strongly disagree**15. Please add comments to either or both of the next two boxes**Strengths of entrustment were ...**Weaknesses or ways entrustment could be improved ...**E. Monitoring**Monitoring is when your work is observed directly or indirectly in order to provide you with feedback and to ensure patient safety (through discussion of cases you've seen, checking notes you've written or clinical decisions you've made etc.)**16. My work was monitored effectively in this training post**Please rate your agreement with this statement**Strongly agree**Agree**Somewhat agree**Neither agree nor disagree*

Table 1 (continued)

Demographic Details

*Somewhat disagree**Disagree**Strongly disagree**17. Please add comments to either or both of the next two boxes**Strengths of monitoring were ...**Weaknesses or ways monitoring could be improved ...**F. Modelling**Modelling requires having the opportunity to observe senior doctors and other members of the healthcare team with patients**18. There were opportunities for modelling in this training post**Please rate your agreement with this statement**Strongly agree**Agree**Somewhat agree**Neither agree nor disagree**Somewhat disagree**Disagree**Strongly disagree**19. Please add comments to either or both of the next two boxes**Strengths of modelling opportunities were ...**Weaknesses or ways modelling opportunities could be improved ...**G. Dialogue**Dialogue is discussing patient care and other aspects of practice with senior doctors and the healthcare team**20. There was dialogue in this training post**Strongly agree**Agree**Somewhat agree**Neither agree nor disagree**Somewhat disagree**Disagree**Strongly disagree**21. Please add comments to either or both of the next two boxes**Strengths of dialogue were ...**Weaknesses or ways dialogue could be improved ...**H. Feedback**Receiving feedback on how you performed clinical tasks**22. I received feedback on how I performed clinical tasks in this training post**Please rate your agreement with this statement**Strongly agree**Agree**Somewhat agree**Neither agree nor disagree**Somewhat disagree**Disagree**Strongly disagree**23. Please add comments to either or both of the next two boxes**Strengths of feedback were ...*

Table 1 (continued)

Demographic Details

Weaknesses or ways feedback could be improved ...

I. Facilities

Your learning environment may include such things as space for students (to write notes, read, and be taught) and resources (books, computers or other materials) that support your learning

24. There post provided appropriate facilities

Please rate your agreement with this statement

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

25. Please add comments to either or both of the next two boxes

Strengths of facilities were ...

Weaknesses or ways facilities could be improved ...

J. Structure of the post

An appropriately structured post is one whose activities are organized in a way that supports your learning

26. This post was structured appropriately to support my learning

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly disagree

27. Please add comments to either or both of the next two boxes

Strengths of the structure of the post were ...

Weaknesses or ways structure of the post could be improved ...

Results

The current study's results are presented in four sections. First an overview of the descriptive quantitative results is presented. Second, the quantitative analysis is subdivided into figures by year of training, practice type, and practice location. Third, the MCPI_{adapted} index score distributions are presented. Finally, the qualitative figures and comments are shown. These are categorised by respondent attributes and overarching themes noted across the responses are described.

Quantitative findings

There was a response rate of 30.94% ($N=125$). Questions 1 to 7 outlined demographic data and provided a description of the characteristics of the study population. 35.2% of the population were male and 64.8% were female. There was a broad range in the age of respondents:

- 15.2% aged 25–29 years
- 46.4% aged 30–34 years
- 32% aged 35–39 years
- 4% aged 40–44
- 2.4% aged 44 years and over

43.2% were from year 3 and 56.8% were from year 4. 74.4% were working in a group practice and 25.6% were based in single-handed practices. 34.3% worked in a practice in a rural setting; 41.6% worked in an urban setting; 24% worked in a geographical location where the patient population was spread across both setting types. There was a broad time gap between graduation from medical school and enrolment in GP with a range of year of graduation from medical school from 2003 to 2018. 66.4% were not enrolled on a previous medical training scheme.

Quantitative data for each individual question was assessed on a 7-point Likert scale. For questions 8 to 26 all responses were weight towards positive responses (strongly

Table 2 Distribution of supervision related responses by frequency and percentile

| There was supervision of this training post | | |
|---|-----------|---------|
| Q8_cat | Frequency | Percent |
| Strongly agree | 59 | 47.20 |
| Agree | 49 | 39.20 |
| Somewhat agree | 12 | 9.60 |
| Neither agree nor disagree | 1 | 0.80 |
| Somewhat Disagree | 0 | 0 |
| Disagree | 2 | 1.60 |
| Strongly Disagree | 2 | 1.60 |

Frequency—the number of respondents for each category; percent—the percentage of all respondents for this question

agree, agree or somewhat agree). The full data summary table is available in the appendices. An example of the data is presented for Question 8 here (see Table 2).

Subdivided quantitative findings

The quantitative findings which were given in a broad overview above were further analysed by subdividing the findings by year of training, practice location, and practice type.

Responses divided by year of training

The quantitative findings for Year of Training (Q3) were subdivided by each question and were plotted on bar charts. The figures in are presented as percentages of the row total and are available in the appendix. The figures were closely matched for each year. An example of the responses is outline for in the area of Supervision below (see Figs. 1).

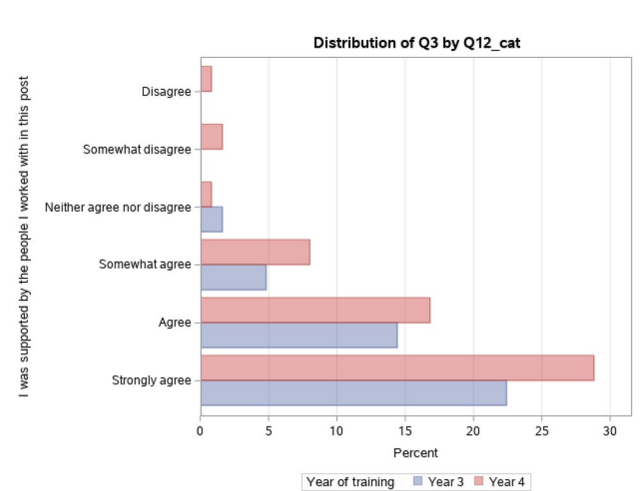


Fig. 1 Distribution of supervision in post by year of training. Percent—the percentage of all respondents for this question

Responses by practice type

Similarly, the quantitative findings for practice type were subdivided by each question. Again, these were closely matched for each type of practice. An example is depicted below for Supervision where due the higher number of group practices surveyed the percentages appear higher for group practices, but remain proportional overall across both categories (see Fig. 2).

Responses divided by Practice Location

The qualitative findings for practice location (Q5) were also subdivided according to each question. The figures which are available in the appendix are presented as percentages of the row total. An example for Supervision is shown below. Again the results are closely matched (Fig. 3).

Distribution of MCPI_{adapted} scores

The MCPI_{adapted} can be scored based on the response format which was a 7-point Likert scale (disagree-agree scores from 0–6). Higher scores therefore represented more positive responses. These results were again subdivided by year of training, practice type, and practice location. When depicted graphically, the results reflect the distribution of responses mentioned above and are closely matched as shown below. The absolute figures are described in the appendix (see Figs. 4, 5, 6, 7).

Qualitative findings

Individual qualitative answers were coded to give an overview of the nature of the responses. Broadly, the codes depicted

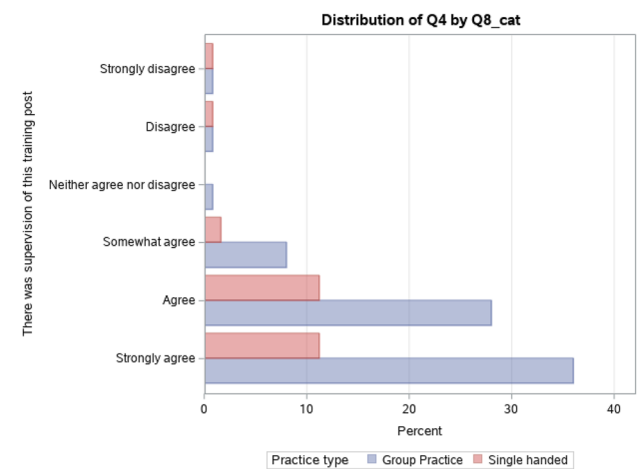


Fig. 2 Distribution of Supervision in post by Practice Type (Single handed or Group Practice). Percent—the percentage of all respondents for this question

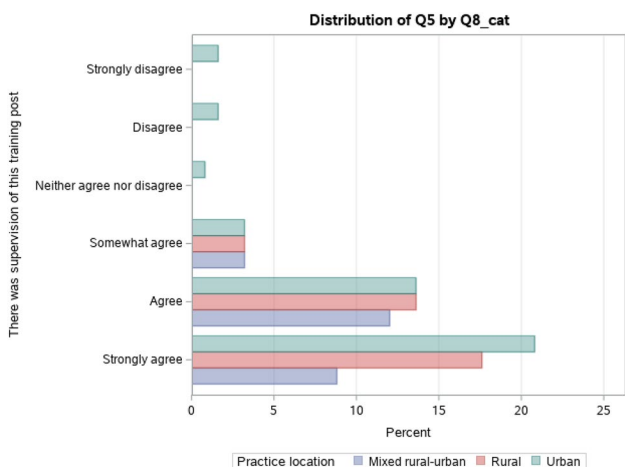


Fig. 3 Distribution of Supervision in post by Practice Location. Percent—the percentage of all respondents for this question

positive and negative response as outlined in the study instrument. These are displayed as bar charts depicting the number of positive and negative codes for each question. Selected examples of quotes which best represented the broader set of responses are displayed to give a greater sense of the nature of the qualitative data. The data was coded and further analysed for common themes where these appear, and this is presented below. In cases where codes overlapped between positive/negative answers and an overarching theme they were coded twice so as not to detract from either count. Cases in each category (year, practice location) are expressed in parentheses.

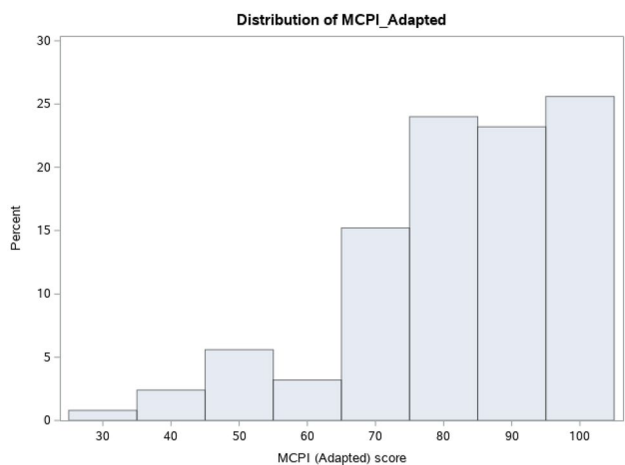


Fig. 4 Bar chart distributions of MCPI_{adapted} scores. Percent (Y Axis)—the percentage of all respondents for this question; X axis—score total out of 100 for each respondent

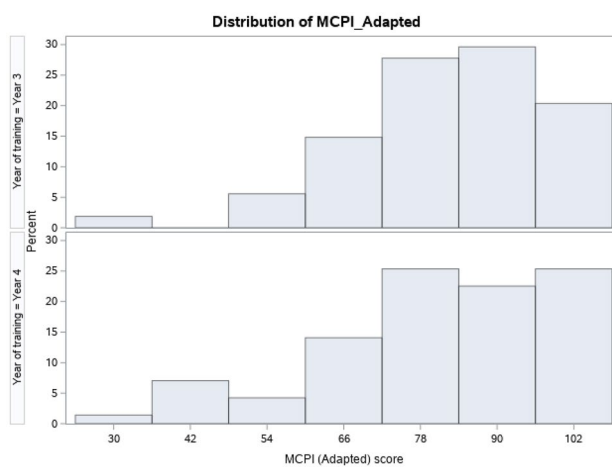


Fig. 5 Bar chart distributions of MCPI_{adapted} scores divided by year of training

Responses to individual questions

Respondents were asked their opinions on a variety of areas of training. They were given the prompts “Strengths of ___ were ... Weaknesses or ways ___ could be improved ...”. For reference, the supplied definition for the term which describes each area is included below. A summary bar chart of each question outlines how the distribution of responses were weighted. Selected examples of quotes from the population are also presented for each question.

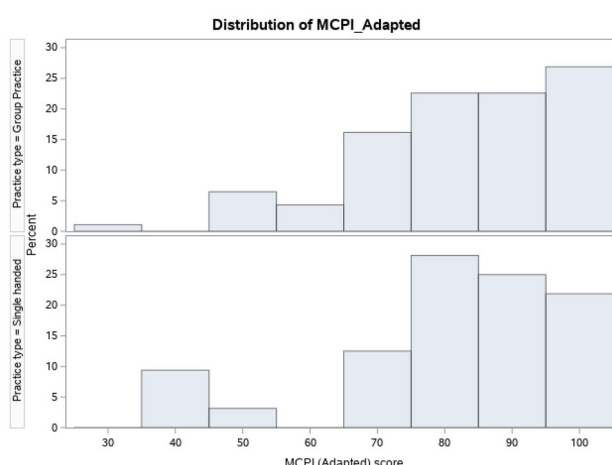


Fig. 6 Bar chart distributions of MCPI_{adapted} scores divided by practice type

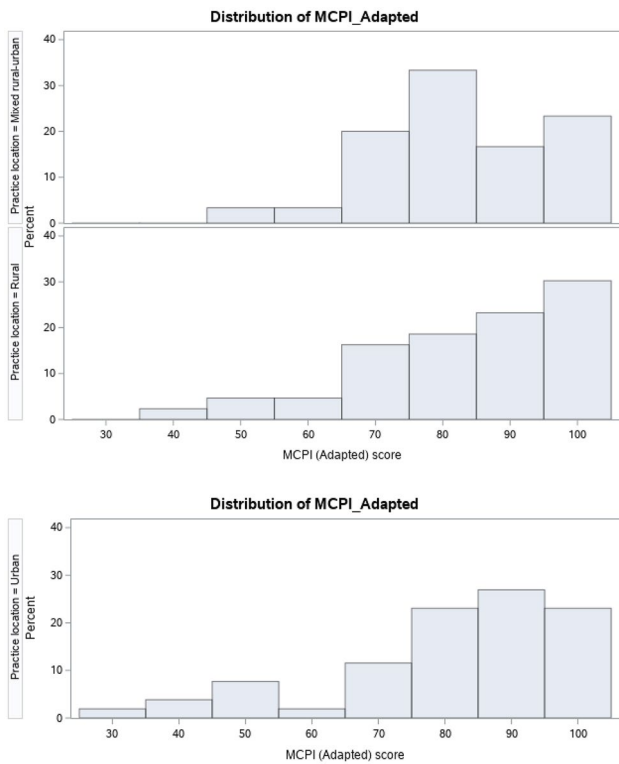


Fig. 7 Bar chart distributions of MCPI_{adapted} scores divided by practice location

Question 9 Supervision

There is supervision if one or more senior doctors take responsibility for your education and training (see Fig. 8 and Table 3).

Question 11. Reception and induction

An appropriate reception and induction is a welcome that includes an explanation of how the post can contribute to your learning (see Fig. 9 and Table 4).

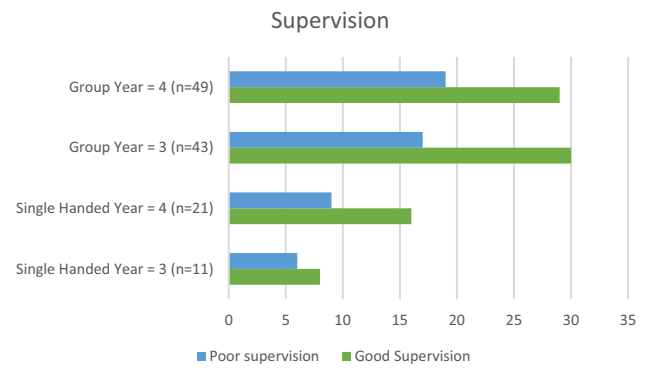


Fig. 8 Supervision (Question 9) Qualitative code count bar chart. Y Axis – Absolute figures of the number of coded answers in each category

Question 13. People

The support to your learning from people (like doctors, secretaries, receptionists, nurses, and others) you worked with in this post (see Fig. 10 and Table 5).

Question 15. Entrustment

Appropriate entrustment is being allowed to undertake clinical activities from which you can learn (activities at your level of competence, or slightly beyond it) (see Fig. 11 and Table 6).

Question 17. Monitoring

Monitoring is when your work is observed directly or indirectly in order to provide you with feedback and to ensure patient safety (through discussion of cases you’ve seen, checking notes you’ve written or clinical decisions you’ve made etc.) (see Fig. 12 and Table 7).

Table 3 Selected comment examples on the subject of Supervision

| Positive Comments Exemplars | Negative Comments Exemplars |
|---|---|
| Availability of trainer. Openness of trainer. Culture of asking for support. Checking for feedback on certain cases | Lots of AL* taken in August and July when I started (*Trainer’s Annual Leave) |
| Good channels of communication | I’ve never done ooh* with a senior, did a full week alone in a practice, this is normal for my scheme (*Out of hours) |
| Approachable trainer. Constructive feedback | Overly micromanaged despite being 4 months from scheme completion; very little autonomy granted; lack of understanding of my level of training – often treated as medical student |

Table 4 Selected comment examples for Question 11

| Positive Comments Exemplars | Negative Comments Exemplars |
|---|--|
| One full week of getting to know the practice prior to seeing patients, including the IT system, the staff, and my trainer, and figuring out what was expected of me as a new registrar | No formal induction for anything else in practice. Was difficult to adjust for few weeks |
| She was very good at discussing what I thought I wanted to improve or upskill in this last rotation and we wrote it down [during] the first tutorial | We never get inducted, I'm still not sure what the requirements are for passing |

Question 19. Modelling

Modelling requires having the opportunity to observe senior doctors and other members of the healthcare team with patients (see Fig. 13 and Table 8).

Question 21. Dialogue

Dialogue is discussing patient care and other aspects of practice with senior doctors and the healthcare team (see Fig. 14 and Table 9)

Question 23. Feedback

Receiving feedback on how you performed clinical tasks (see Fig. 15 and Table 10).

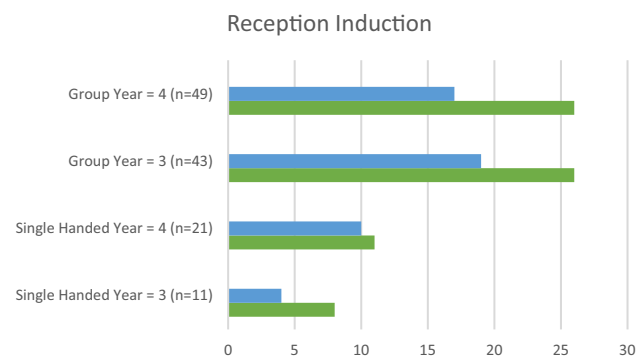


Fig. 9 Reception and Induction (Question 11) Qualitative code count bar chart. Y Axis – Absolute figures of the number of coded answers in each category

Table 5 Selected comment examples for Question 13

| Positive Comments Exemplars | Negative Comments Exemplars |
|--|--|
| Excellent communication and friendly working environment. Well-structured team | Tend to assign additional tasks to me as the most junior staff member |
| Friendly and supportive | Recognition that you are there for training and not to function as a fully employed GP, so there should be some protection from being overbooked with appointments |

Question 25. Facilities

Your learning environment may include such things as space for students (to write notes, read, and be taught) and resources (books, computers or other materials) that support your learning (see Fig. 16 and Table 11).

Question 27. Structure of the post

An appropriately structured post is one whose activities are organized in a way that supports your learning (see Fig. 17 and Table 12).

Overarching themes throughout the data

COVID 19 effects

The impact of COVID 19 was cited as an inhibitory factor on aspects of training throughout the survey at low levels. Unsurprisingly, the biggest influence this had was interference in modelling as the opportunity to share experiences is limited through decreased patient contact and through decreased contact time between trainer and trainee during the pandemic. The code counts for each question are shown in the appendix and selected quotations are shown below (see Table 13).

Workload effects

The effects of having an onerous workload were mentioned by respondents in a number of areas, namely supervision, support, entrustment, modelling, and, mostly notably, in

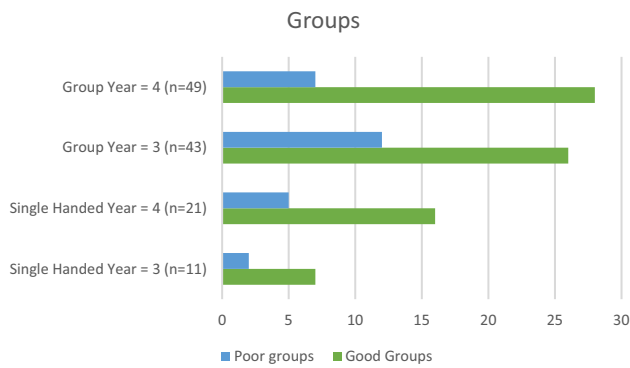


Fig. 10 People (Question 13) Qualitative code count bar chart. *Y Axis – Absolute figures of the number of coded answers in each category*

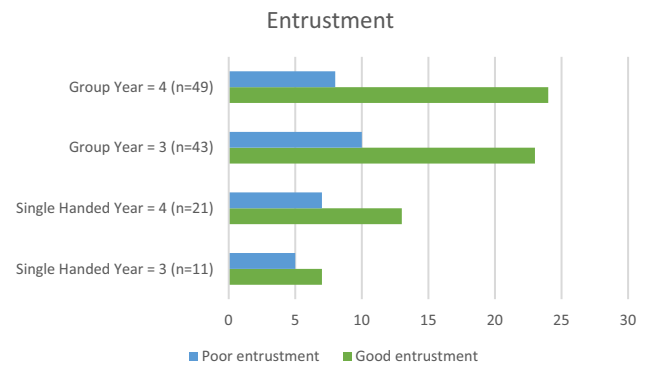


Fig. 11 Entrustment (Question 15) Qualitative code count bar chart. *Y Axis – Absolute figures of the number of coded answers in each category*

post structure. It is apparent that in instances where the training was deemed to be poorly structured the workload burden was referenced by trainees most often. The code counts for each question are in the appendix and selected quotations are shown below (see Table 14).

Time constraints

The effects of being constrained in terms of time was noted as a factor in training in many areas but it was most marked as being a factor in supervision, dialogue, and post structure. Time management is a key skill in all areas of GP, but the management and utilisation of time in an efficient manner can have a bearing on training as is noted by trainees in their commentary below. The code counts for each question are shown in the appendix with sample quotes below (see Table 15).

Discussion

Population demographics

The study population was predominantly female (64%) and aged over 30 years old. More respondents were based in group practices (74%) and in urban settings (41%). Only 33% had enrolled on a prior training scheme. This implies that GP remains a first-choice long-term career for the majority of trainees.

Trainee perceptions of their GP learning environment

Overall, the current study demonstrates a high level of satisfaction by GP trainees with GP training as it is carried

Table 6 Selected comment examples for Question 15

| Positive Comments Exemplars | Negative Comments Exemplars |
|--|--|
| My strengths and weaknesses were asked at the beginning which allowed me to thrive on my strengths and support for my weakness | I was not allowed put on a plaster |
| Allowed to practice independently without interruption | I had been performing cervical smears in previous practice but as not signed off from cervical check I was expected to sit in with nurse and basically start again from as scratch |

Table 7 Selected comment examples for Question 17

| Good Comments Exemplars | Negative Comments Exemplars |
|--|---|
| Checking notes and discussion of cases both during and after consultation. Helped me feel safe and supported | I'm not sure how much monitoring is happening |

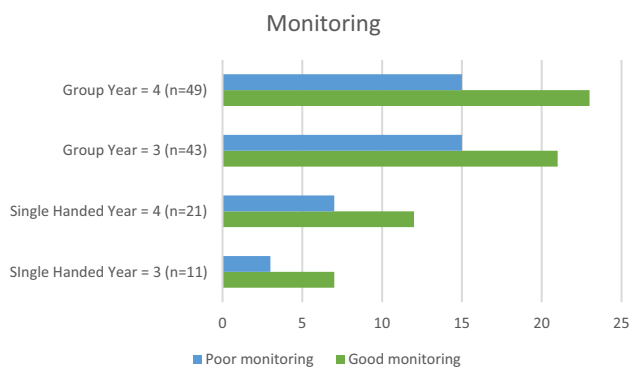


Fig. 12 Monitoring (Question 17) Qualitative code count bar chart. Y Axis – Absolute figures of the number of coded answers in each category

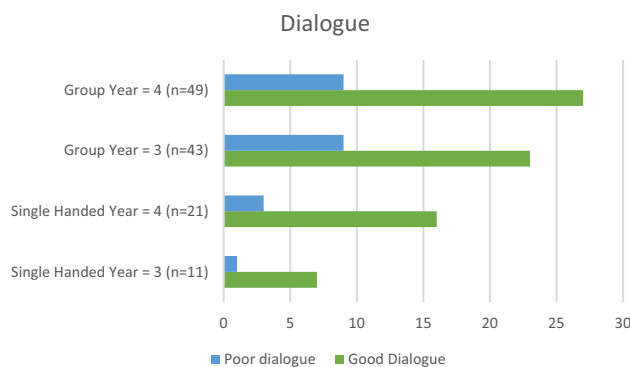


Fig. 14 Dialogue (Question 21) Qualitative code count bar chart. Y Axis – Absolute figures of the number of coded answers in each category

Table 8 Selected comment examples for Question 19

| Good Comments Exemplars | Negative Comments Exemplars |
|--|--|
| Observed practical tasks | Never once done [sic] this |
| My trainer is a great model and allows me to observe her when needed | Barely existed in practice, beyond a few patients during induction |

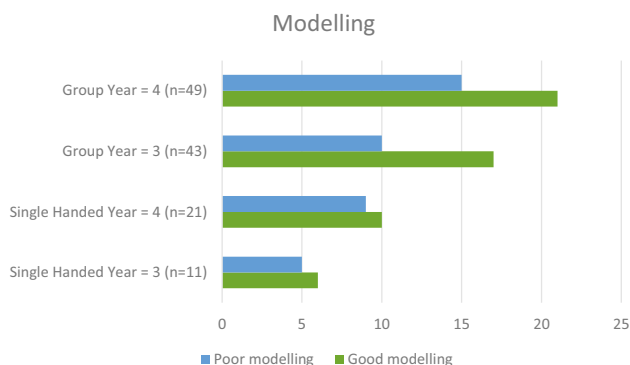


Fig. 13 Modelling (Question 19) Qualitative code count bar chart. Y Axis – Absolute figures of the number of coded answers in each category

out in Ireland today. Trainees’ growth is founded on a strong but flexible and well-supported learning environment which incorporates a non-hierarchical relationship

Table 9 Selected comment examples for Question 21

| Good Comments Exemplars | Negative Comments Exemplars |
|---|--|
| Very comfortable talking to my trainer and his partner about this | Colleagues often too busy for this |
| Whenever needed, without delay | Unfortunately, my trainer is passive aggressive and can be difficult to approach |

between trainers and trainees [8]. Accordingly, there is a common thread in the positive observations noted in the qualitative section in the positive language used to depict this type of trainer.

Patterns, strengths, and weaknesses in training

A number of areas of training noted in the results section were of particular interest to the current study. It is revealing to look at the pattern of results in these areas, which are listed below.

- GP training quality is not likely to be a factor in GP emigration

A lack of training quality among NCHDs was seen as one of the major causative systemic factors contributing to doctors deciding to emigrate [9]. In this study, it is shown that poor training is unlikely to be a factor in GP emigration. Overall MCPI_{adapted} scores of 83% with an encouraging distribution towards positive responses compares favorably with international scores on training from the UK, where overall *National Trainee Survey* respondents had an 83% rate of satisfaction as either good or excellent [10].

- The current GP trainer-trainee feedback mechanisms are adequate

In terms of overall feedback 81.6% of respondents had a positive response, whereas only 15.2% recorded negative responses. However, the qualitative results diverge somewhat from the quantitative findings in this area. In particular, negative views on feedback outnumbered the codes for positive views for fourth-year single-handed

Table 10 Selected comment examples for Question 23

| Good Comments Exemplars | Negative Comments Exemplars |
|------------------------------------|--|
| I do get great feedback | I never get feedback. To be honest if I do get feedback I don't really understand it as my trainer has no idea how I'm conducting myself. He just gets hearsay from the practice manager / or other staff which is all positive and patient feedback is positive but if I do get feedback I don't really feel it's specific to me and it's general how to be a good G.P. kind of stuff |
| Regular (almost daily discussions) | I've never been observed nobody has ever [given] feedback on my work |

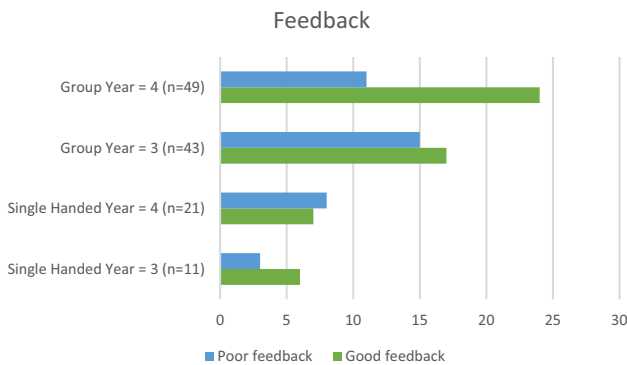


Fig. 15 Feedback (Question 23) Qualitative code count bar chart. Y Axis – Absolute figures of the number of coded answers in each category



Fig. 16 Facilities (Question 25) Qualitative code count bar chart. Y Axis – Absolute figures of the number of coded answers in each category

Table 11 Selected comment examples for Question 25

| Good Comments Exemplars | Negative Comments Exemplars |
|---|---|
| Own room, not required to move on a daily basis, fully kitted room and ability to request equipment if needed | No label printer or prescription printer in my room- as a cost saving measure but very poor with time efficiency and safety with labelling bloods etc |
| Good room and equipment | Poor IT set up, should be improved to a standard that allows a doctor to work well |

practice-based trainees. It was also stated in the comments that in such situations it might be difficult to be negative in a one-to-one relationship and that some trainers were difficult to approach. Solutions to this issue may be to introduce more widespread use of anonymised instruments but also through the introduction of training for all parties on the use of feedback as a structured standard training tool [11, 12].

- Trainees' suggestions to address areas that are deficient

The questionnaire did not mandate the trainees to make suggestions to address deficiencies in training. However, aspects requiring improvement were either implied or, in some cases, specifically suggested by trainees in their responses. These were most notable in four specific areas of the questionnaire.

First, in supervision some trainees noted a lack of oversight and support in a few aspects including while working in out of hours settings; also, some annual leave was taken by the trainer at inappropriate times, such as when the trainee was starting the post. Secondly, in induction trainees noted a lack of a formal induction where in some cases there was no introduction to other staff members, no IT set-up or passwords ready to access the patient records system, and a lack of explanation or discussion around local care pathways or practice policies. Thirdly, some trainees reported that some resources were found wanting and basic infrastructure which is mandated by the ICGP to be available for the trainee was not in place. The final and most notable area was in the definition of roles and responsibilities. Some trainees noted that clear goal setting was not addressed and in one case the trainee was unsure even what the standard for passing was.

Table 12 Selected comment examples for Question 27

| Good Comments Exemplars | Negative Comments Exemplars |
|---|--|
| Clear outline of my daily routine, scheduled 1:1 teaching time once weekly, and schedule weekly scheme teaching which is guaranteed—not fighting to get away for the day etc. as perhaps we would have in hospital posts. Excellent | I believe it is [structured] so I can see the maximum number of patients in the day, education is secondary |
| Very well structured. Formal tutorials and protected time | I have to come in early before clinic for my tutorials. My list is jam packed so if I have a question which takes time to find the answer, I am automatically running behind so there is a disincentive to ask and be involved in training |

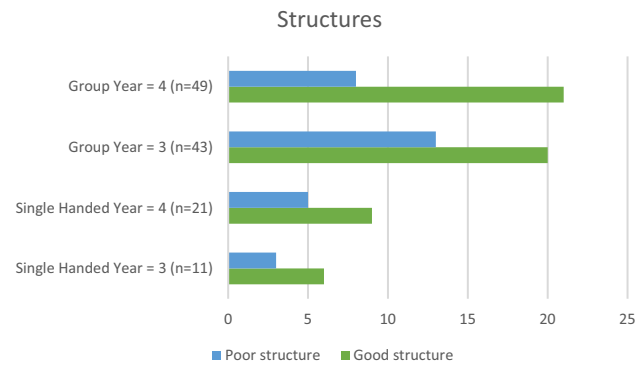


Fig. 17 Structures (Question 27) Qualitative code count bar chart. Y Axis – Absolute figures of the number of coded answers in each category

Are there differences in training standards based on location or practice type?

Any differences noted in location or practice type were marginal and in effect would not amount to a significant

practical difference in training standards. The lack of a significant difference in scores represents the excellent work being done in all locations and in all practice types in this regard.

Qualitative themes

Outside of the broadly strong praise for the excellent efforts being made by trainers, three common themes were developed throughout the study within the coded qualitative responses: the impact of COVID19, time constraints, and excessive workload. These were unsurprising as they are challenges which were encountered by all healthcare professionals. As far back as 2007 stress management, team working, and workload were all factors which were identified as a challenge to GP training and that remains the same today in the midst of a pandemic [13].

Most of the codes in relation to COVID19 are noted under the modelling section as the usual side by side working arrangements which allow effective monitoring were disrupted. Similarly, excessive workload comments

Table 13 Selected comment examples for COVID19 Effects

Ways in which COVID19 affected training

- Videos consultations are difficult to carry out
- Decreased patient contacts
- Trainers are doing excellent work to continue training despite increased workload
- Minimal chance to do practice procedures during COVID
- Induction week was cancelled due to COVID
- Due to COVID trainer does not see patients however expects trainee to see all

Table 14 Selected comment examples for workload-related effects

Excessive Workload Comments

- Too busy. Feel like I'm working as an employee not a trainee
- Would strongly like designated time to observe, not just be an extra body for work
- Busy practice—workload of reg meant difficult to get time off etc. Study Leave / Annual Leave absolutely not here to learn, I'm here to work and be an extra pair of hands
- Not understanding that I am a 3rd year
- Overloading my day with appointments

Table 15 Selected comment examples for time constraints

| Comments relating to time constraints |
|--|
| Too busy. Feel like I'm working as an employee not a trainee |
| Busy practice and time constraints meant few opportunities to observe |
| Time constraints mean little time for feedback |
| More structure to tutorials, often curtailed by day-to-day pressures of the practice |

centred on poorly structured posts and trainees broadly commented that at times they felt they were overloaded. These effects were also mentioned by respondents in relation to supervision, support, entrustment, and modelling. Time constraints were most notable in the areas of supervision, dialogue, and post structure with many stating that it was a ‘busy practice’ which is reflective of real-world general practice today.

Study design and methodology

- Study strengths

The study structure and methodology were appropriate. The structure addressed the research questions stated and the methodology for this was appropriate.

This is the first study of its kind to employ a mixed methodology in studying the perceptions of GP trainees’ learning environment in postgraduate training in Ireland. The research tool chosen was short yet comprehensive which allowed it to be more flexible and accessible to trainee respondents.

- Study limitations

There were limitations to the study design and procedures. The study tool used was an adaptation of the original version. Although adapted after an expert panel review, it was not validated for the study population in postgraduate GP training itself. The study instrument used was somewhat

rigid in nature. Respondents were forced to think a response framed by the nature of the questions rather than develop their own personal rhetoric.

The structure was somewhat limited in gaining more depth to the study responses. By design, this survey type takes a snapshot of the sample population and cannot determine correlations. The survey did not include the opinions of GP trainers as it was beyond the scope of the current work. It would be interesting and worthwhile to include their views in future research to give a more global perspective and to help investigate deficiencies in the training environment from the trainers’ perspective. The restrictive nature of the ethical approval process meant that it was not possible to contact any respondents after the survey was completed and thus precluded member checking which would have been a valuable tool to explore the credibility of the qualitative results.

Conclusions and recommendations

The current research findings were broadly positive and supportive of the good work being done in GP training and by trainers in Ireland today. Further research will be needed to validate the study instrument and to further refine some aspects of its configuration. The implementation of such a survey on a regular basis may have merit as part of the quality assurance process in GP education alongside existing feedback structures [2].

Appendix

Quantitative Data Summary for Questions 8 to 26 inclusive

| Question | Frequency / Percent | Strongly agree | Agree | Somewhat agree | Neither agree nor disagree | Somewhat Disagree | Disagree | Strongly Disagree |
|----------|---------------------|----------------|-------|----------------|----------------------------|-------------------|----------|-------------------|
| Q8 | Frequency | 59 | 49 | 12 | 1 | 0 | 2 | 2 |
| Q8 | Percent | 47.2 | 39.2 | 9.6 | 0.8 | 0 | 1.6 | 1.6 |
| Q10 | Frequency | 51 | 38 | 18 | 5 | 3 | 4 | 6 |
| Q10 | Percent | 40.8 | 30.4 | 14.4 | 4 | 2.4 | 3.2 | 4.8 |
| Q12 | Frequency | 64 | 39 | 16 | 3 | 2 | 1 | 0 |

| Question | Frequency / Percent | Strongly agree | Agree | Somewhat agree | Neither agree nor disagree | Somewhat Disagree | Disagree | Strongly Disagree |
|----------|---------------------|----------------|-------|----------------|----------------------------|-------------------|----------|-------------------|
| Q12 | Percent | 51.2 | 31.2 | 12.8 | 2.4 | 1.6 | 0.8 | 0 |
| Q14 | Frequency | 54 | 56 | 9 | 2 | 2 | 1 | 1 |
| Q14 | Percent | 43.2 | 44.8 | 7.2 | 1.6 | 1.6 | 0.8 | 0.8 |
| Q16 | Frequency | 44 | 43 | 23 | 5 | 5 | 2 | 3 |
| Q16 | Percent | 35.2 | 34.4 | 18.4 | 4 | 4 | 1.6 | 2.4 |
| Q18 | Frequency | 31 | 35 | 25 | 12 | 13 | 5 | 4 |
| Q18 | Percent | 24.8 | 28 | 20 | 9.6 | 10.4 | 4 | 3.2 |
| Q20 | Frequency | 64 | 40 | 15 | 3 | 2 | 0 | 1 |
| Q20 | Percent | 51.2 | 32 | 12 | 2.4 | 1.6 | 0 | 0.8 |
| Q22 | Frequency | 37 | 44 | 21 | 4 | 8 | 8 | 3 |
| Q22 | Percent | 29.6 | 35.2 | 16.8 | 3.2 | 6.4 | 6.4 | 2.4 |
| Q24 | Frequency | 47 | 36 | 20 | 7 | 7 | 7 | 1 |
| Q24 | Percent | 37.6 | 28.8 | 16 | 5.6 | 5.6 | 5.6 | 0.8 |
| Q26 | Frequency | 45 | 41 | 22 | 5 | 5 | 6 | 1 |
| Q26 | Percent | 36 | 32.8 | 17.6 | 4 | 4 | 4.8 | 0.8 |

Quantitative data summary for each individual question by year of training

| Question | Year of training | Strongly Agree | Agree | Somewhat Agree | Neither Agree nor Disagree | Somewhat Disagree | Disagree | Strongly Disagree |
|----------|------------------|----------------|-------|----------------|----------------------------|-------------------|----------|-------------------|
| Q8 | 3 | 44.44 | 44.44 | 9.26 | 0 | 0 | 1.85 | 0 |
| Q8 | 4 | 49.3 | 35.21 | 1.41 | 1.41 | 0 | 1.41 | 2.82 |
| Q10 | 3 | 38.89 | 27.78 | 20.37 | 0 | 3.7 | 3.7 | 5.56 |
| Q10 | 4 | 42.25 | 32.39 | 9.86 | 7.04 | 1.41 | 2.82 | 4.23 |
| Q12 | 3 | 51.85 | 33.33 | 11.11 | 3.7 | 0 | 0 | 0 |
| Q12 | 4 | 50.7 | 29.58 | 14.08 | 1.41 | 2.82 | 1.41 | 0 |
| Q14 | 3 | 40.74 | 44.44 | 12.96 | 1.85 | 0 | 0 | 0 |
| Q14 | 4 | 45.07 | 45.07 | 2.82 | 1.41 | 2.82 | 1.41 | 1.41 |
| Q16 | 3 | 27.78 | 44.44 | 20.37 | 3.7 | 1.85 | 0 | 1.85 |
| Q16 | 4 | 40.85 | 26.76 | 16.9 | 4.23 | 5.63 | 2.82 | 2.82 |
| Q18 | 3 | 22.22 | 31.48 | 20.37 | 11.11 | 11.11 | 1.85 | 1.85 |
| Q18 | 4 | 26.76 | 25.35 | 19.72 | 8.45 | 9.86 | 5.63 | 4.23 |
| Q20 | 3 | 50 | 27.78 | 16.67 | 3.7 | 1.85 | 0 | 0 |
| Q20 | 4 | 52.11 | 35.21 | 8.45 | 1.41 | 1.41 | 0 | 1.41 |
| Q22 | 3 | 29.63 | 38.89 | 16.67 | 3.7 | 3.7 | 5.56 | 1.85 |
| Q22 | 4 | 29.58 | 32.39 | 16.9 | 2.82 | 8.45 | 7.04 | 2.82 |
| Q24 | 3 | 37.04 | 29.63 | 14.81 | 7.41 | 3.7 | 7.41 | 0 |
| Q24 | 4 | 38.03 | 28.17 | 16.9 | 4.23 | 7.04 | 4.23 | 1.41 |
| Q26 | 3 | 37.04 | 37.04 | 16.67 | 5.56 | 1.85 | 1.85 | 0 |
| Q26 | 4 | 35.21 | 29.58 | 18.31 | 2.82 | 5.63 | 7.04 | 1.41 |

Qualitative data summary for each individual question by practice location

| Question | Location Type | Strongly Agree | Agree | Somewhat Agree | Neither Agree nor Disagree | Somewhat Disagree | Disagree | Strongly Disagree |
|----------|---------------|----------------|-------|----------------|----------------------------|-------------------|----------|-------------------|
| Q8 | Mixed | 36.67 | 50 | 13.33 | 0 | 0 | 0 | 0 |
| Q8 | Rural | 51.16 | 39.53 | 9.3 | 0 | 0 | 0 | 0 |
| Q8 | Urban | 50 | 32.69 | 7.69 | 1.92 | 0 | 3.85 | 3.85 |
| Q10 | Mixed | 30 | 30 | 26.67 | 3.33 | 3.33 | 3.33 | 3.33 |
| Q10 | Rural | 46.51 | 30.23 | 13.95 | 2.33 | 2.33 | 4.65 | 0 |
| Q10 | Urban | 42.31 | 30.77 | 7.69 | 5.77 | 1.92 | 1.92 | 9.62 |
| Q12 | Mixed | 53.33 | 30 | 13.33 | 3.33 | 0 | 0 | 0 |
| Q12 | Rural | 55.81 | 25.58 | 13.95 | 0 | 2.33 | 2.33 | 0 |
| Q12 | Urban | 46.15 | 36.54 | 11.54 | 3.85 | 1.92 | 0 | 0 |
| Q14 | Mixed | 30 | 56.67 | 13.33 | 0 | 0 | 0 | 0 |
| Q14 | Rural | 41.86 | 37.21 | 6.98 | 4.65 | 4.65 | 2.33 | 2.33 |
| Q14 | Urban | 51.92 | 44.23 | 3.85 | 0 | 0 | 0 | 0 |
| Q16 | Mixed | 23.33 | 56.67 | 13.33 | 0 | 3.33 | 3.33 | 0 |
| Q16 | Rural | 44.19 | 20.93 | 20.93 | 6.98 | 4.65 | 2.33 | 0 |
| Q16 | Urban | 34.62 | 32.69 | 19.23 | 3.85 | 3.85 | 0 | 5.77 |
| Q18 | Mixed | 30 | 20 | 23.33 | 10 | 10 | 6.67 | 0 |
| Q18 | Rural | 20.93 | 27.91 | 27.91 | 4.65 | 13.95 | 4.65 | 0 |
| Q18 | Urban | 25 | 32.69 | 11.54 | 13.46 | 7.69 | 1.92 | 7.69 |
| Q20 | Mixed | 40 | 40 | 13.33 | 6.67 | 0 | 0 | 0 |
| Q20 | Rural | 58.14 | 23.26 | 13.95 | 2.33 | 0 | 0 | 2.33 |
| Q20 | Urban | 51.92 | 34.62 | 9.62 | 0 | 3.85 | 0 | 0 |
| Q22 | Mixed | 23.33 | 43.33 | 16.67 | 6.67 | 6.67 | 3.33 | 0 |
| Q22 | Rural | 41.86 | 25.58 | 13.95 | 2.33 | 6.98 | 9.3 | 0 |
| Q22 | Urban | 23.08 | 38.46 | 19.23 | 1.92 | 5.77 | 5.77 | 5.77 |
| Q24 | Mixed | 43.33 | 23.33 | 16.67 | 6.67 | 6.67 | 3.33 | 0 |
| Q24 | Rural | 34.88 | 32.56 | 18.6 | 2.33 | 2.33 | 6.98 | 2.33 |
| Q24 | Urban | 36.54 | 28.85 | 13.46 | 7.69 | 7.69 | 5.77 | 0 |
| Q26 | Mixed | 30 | 30 | 23.33 | 13.33 | 0 | 3.33 | 0 |
| Q26 | Rural | 41.86 | 34.88 | 11.63 | 0 | 4.65 | 6.98 | 0 |
| Q26 | Urban | 34.62 | 32.69 | 19.23 | 1.92 | 5.77 | 3.85 | 1.92 |

Quantitative data summary for each individual question by practice type

| Question | Location Type | Strongly Agree | Agree | Somewhat Agree | Neither Agree nor Disagree | Somewhat Disagree | Disagree | Strongly Disagree |
|----------|---------------|----------------|-------|----------------|----------------------------|-------------------|----------|-------------------|
| Q8 | Group | 48.39 | 37.63 | 10.75 | 1.08 | 0 | 1.08 | 1.08 |
| Q8 | Single | 43.75 | 43.75 | 6.25 | 0 | 0 | 3.13 | 3.13 |
| Q10 | Group | 37.63 | 30.11 | 17.2 | 4.3 | 3.23 | 3.23 | 4.3 |
| Q10 | Single | 50 | 31.25 | 6.25 | 3.13 | 0 | 3.13 | 6.25 |
| Q12 | Group | 46.24 | 36.56 | 12.9 | 3.23 | 1.08 | 0 | 0 |
| Q12 | Single | 43.75 | 43.75 | 6.25 | 0 | 3.13 | 3.13 | 0 |
| Q14 | Group | 41.94 | 48.39 | 8.6 | 0 | 1.08 | 0 | 0 |
| Q14 | Single | 46.88 | 34.38 | 3.13 | 6.25 | 3.13 | 3.13 | 3.13 |
| Q16 | Group | 33.33 | 35.48 | 20.43 | 5.38 | 3.23 | 1.08 | 1.08 |

| Question | Location Type | Strongly Agree | Agree | Somewhat Agree | Neither Agree nor Disagree | Somewhat Disagree | Disagree | Strongly Disagree |
|----------|---------------|----------------|-------|----------------|----------------------------|-------------------|----------|-------------------|
| Q16 | Single | 40.63 | 31.25 | 12.5 | 0 | 6.25 | 3.13 | 6.25 |
| Q18 | Group | 26.88 | 26.88 | 19.35 | 9.68 | 10.75 | 4.3 | 2.15 |
| Q18 | Single | 18.75 | 31.25 | 21.88 | 9.38 | 9.38 | 3.13 | 6.25 |
| Q20 | Group | 48.39 | 34.41 | 11.83 | 3.23 | 2.15 | 0 | 0 |
| Q20 | Single | 59.38 | 25 | 12.5 | 0 | 0 | 0 | 3.13 |
| Q22 | Group | 30.11 | 35.48 | 16.13 | 3.23 | 7.53 | 6.45 | 1.08 |
| Q22 | Single | 28.13 | 34.38 | 18.75 | 3.13 | 3.13 | 6.25 | 6.25 |
| Q24 | Group | 37.63 | 29.03 | 15.05 | 4.3 | 6.45 | 6.45 | 1.08 |
| Q24 | Single | 37.5 | 28.13 | 18.75 | 9.38 | 3.13 | 3.13 | 0 |
| Q26 | Group | 37.63 | 32.26 | 19.35 | 4.3 | 3.23 | 3.23 | 0 |
| Q26 | Single | 31.25 | 34.38 | 12.5 | 3.13 | 6.25 | 9.38 | 3.13 |

Distribution of MCPI_{adapted} Scores

| Subdividing Factor | N | Median | 25th Percentile | 75th Percentile |
|--------------------|-----|--------|-----------------|-----------------|
| Overall total | 125 | 83.333 | 73.333 | 95 |
| Year 3 | 54 | 84.167 | 75 | 93.333 |
| Year 4 | 71 | 81.667 | 71.667 | 96.667 |
| Group Practice | 93 | 83.333 | 71.667 | 95 |
| Single handed | 32 | 82.5 | 74.167 | 92.5 |
| Mixed rural–urban | 30 | 80 | 70 | 90 |
| Rural | 43 | 85 | 71.667 | 96.667 |
| Urban | 52 | 84.167 | 73.333 | 90.833 |

A: Q9 Supervision

B: Q11 Reception

C: Q13 Support

D: Q15 Entrustment

E: Q17 Monitoring

F: Q19 Modelling

G: Q21 Dialogue

H: Q23 Feedback

I: Q25 Facilities

J: Q27 Structures

Figure 17. Workload related Codes

| | |
|--------------------|----|
| A: Q9 Supervision | 10 |
| B: Q11 Reception | 1 |
| C: Q13 Support | 3 |
| D: Q15 Entrustment | 0 |
| E: Q17 Monitoring | 2 |
| F: Q19 Modelling | 4 |
| G: Q21 Dialogue | 8 |
| H: Q23 Feedback | 3 |
| I: Q25 Facilities | 1 |
| J: Q27 Structures | 6 |

F Time Constraint Codes

table(s) with caption(s) (on individual pages);

figures; figure captions (as a list)

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Declarations

Conflict of interest The authors declare no competing interests.

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