

Title: GP registrars teaching medical students- an untapped resource?

Short title: GP registrars teaching medical students

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Competing interests JR and MJ run UCL community based teaching programmes. JR is the Royal Free Hospital TPD and is the programme director for the ITP programme. JR was a stakeholder interviewee.

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Abstract

Background

Placements in general practice are fundamental to undergraduate (UG) medical education yet medical schools have difficulty recruiting teaching practices. Developing programmes of “near peer teaching” (NPT) may be a solution. Health Education England (HEE) and UCL run a NPT programme in 5 GP training schemes with 6 month Innovative Training Posts (ITP) in medical education.

Aim

To evaluate the role of GP innovative training posts in providing undergraduate medical education.

Design and Setting

Focus groups and semi-structured interviews with GP specialty trainees (“trainees”), medical students and educational stakeholders in North London.

Method

This qualitative study explored stakeholders’ perspectives of a near peer teaching initiative in general practice. Transcribed interviews were analysed thematically.

Results

We interviewed 26 stakeholders. Students valued trainee’s generalist expertise and helping make explicit areas of medicine. Trainees adopted more student-centred approaches, for example addressing students’ assessment-oriented agendas, in contrast to senior doctors. They also provided accessible career guidance for students. Trainees expressed benefits to their development; their identity as learners and educators, advancing their clinical knowledge and negotiating competing demands. Teaching and learning for trainees were inter related; as identified by “to teach something well is to understand it well”. Educational leaders were supportive but needed to champion such initiatives

Conclusion

Formalisation of near peer teaching in general practice is relatively novel. There are strong educational benefits for these learners and teachers clearly influenced by the social context of learning. There are suggestions of positive career role modelling for students by trainees.

Key words Undergraduate medical education, family practice

Background

“Near Peer Teaching” (NPT) is a term used in medical education to describe senior learners mentoring more junior learners (1). In hospitals junior doctors make significant contributions to medical student teaching, yet for those who move to GP training posts opportunities to teach become limited. (2) This is in spite of the RCGP curriculum stating that ‘GP specialty trainees (GPSTs) ... are ideally placed to deliver teaching’. (3)

NHS Health Education England (HEE) a postgraduate educational commissioner has identified the need to increase medical student GP placements. Their 2016 report “By choice not by chance” (Wass) recommended promoting GP recruitment through improving undergraduate (UG) student GP exposure.(4) However, capacity for UG placements is limited by service pressures and GP shortages. Postgraduate (PG) training is often seen as a more attractive option to practices as trainees contribute directly to service provision and attracts a training grant. (5) If postgraduate training practices were better incentivised to teach medical students there could be significant UG teaching capacity gain. Some UK GP training programmes now offer Innovative Training Posts (ITPs) where trainees develop areas of expertise, including medical education, with their workload split between education activities and clinical work. (6)

Ten Cate and Durning have identified that the reduced distance between teacher and learner fosters learning (7) and social congruence theory suggests learners are more at ease with these near peer tutors. (8) Trainees are the main near peer tutors encountered by undergraduate students in General Practice but are themselves under significant pressure to balance the delivery of clinical care and their own training needs in accordance with various regulatory bodies such as GMC (General Medical Council- the UK medical regulator and the Royal College of General Practitioners (RCGP- the professional and examining body for UK general practice) (9). This impacts on the availability of trainees as accessible near peers for UG students in general practice and somewhat limits the flexibility to innovate.

What is known about trainees teaching medical students?

Near peer teaching models in primary care increase teaching capacity and are established internationally in Australia, (10) (11), Canada (12) and the USA. (13) Some UK trainees are involved in UG teaching (11) (2) (14). The proportion of UK trainees involved in UG teaching vary from 10% (2) to over 50%.(15). UK Foundation doctors (doctors within 2 years of graduation) teaching students in GP is rarer. (16)

GP trainee perspective

Evidence suggests that the majority of trainees want to teach, (15) to: enhance their training, (17-19) develop teaching skills, (19) and to enhance their self-worth. (18) Teaching also reduces some trainees' sense of professional isolation. (20) Studies suggests that about half to three quarters of trainees (41%) receive training to teach.(15) (21) There are conflicting reports on trainees' perceived need to develop their teaching skills, (10) in contrast to other learning needs such as MRCGP preparation (MRCGP Membership of the RCGP final "board certifying" assessment). Trainees are reported as having more confidence than their trainers in their teaching capabilities, (22) (18) however, this varies according to the content being taught. Trainees also describe barriers to teaching including lack of access to students, and limited teaching resources.

Medical student perspective

Near peer teaching is popular amongst medical students both in the UK (11) and internationally.(21) Students appreciate the more informal style and near peer nature of trainee teaching. (11) However, this model may not be appropriate where students or trainees themselves have additional learning needs such as remediation. (20)

GP/GP trainer perspective

Internationally this model is supported by GPs/ GP trainers ("trainers") (21). However, UK GPs express anxieties about the additional workload. (5) Trainers reflect the need to develop teaching skills in their trainees.(10) Work from Australia emphasises the importance of the (physical and teaching) environment (11), and the need for structural support (finance, administration). (18, 21)

In summary, there is growing evidence that trainee teaching of medical students in primary care has benefits in terms of service capacity, trainees' overall learning and confidence and is welcomed by students. Questions remain unanswered include how senior stakeholders with responsibility for trainees training regard these models and their impact on trainees' progress to certification. Additionally, what particular aspects do medical students in primary care value in near peers, and do current trainees see teaching as a positive influence on their potential future GP careers?

Study aim

To evaluate the role of GP innovative training posts in providing undergraduate medical education, an example of near peer teaching, from the perspectives of the key stakeholders.

Teaching model: HEE London and UCL (University College London) Medical School in London run a near peer programme in 5 GP training schemes with 6 month Innovative Training Posts ("innovative post") combining training and UG teaching. The innovative post holders teach small groups on the UCL 'Medicine in the Community' course during the 6 year undergraduate medicine MB BS course in

the fourth year which is the 1st clinical year at UCL. This is a year-long placement during which students attend GP practices for a day once per month, for 9 days per year (tinyurl.com/y4ed9xna). The intended learning outcomes (ILO) are around developing students' basic clinical skills and their core knowledge related to their medicine & surgical firms. This is not therefore a "GP firm" but a community supplement to students' basic clinical teaching firms. Career influence was not an intended outcome for the course but was implicit.(4)

Methods

This was a qualitative study consisting of a series of semi-structured interviews or (where stated) focus groups with stakeholders including;

- a. GPST ITPs (GP trainees on the innovative training post)
- b. Medical students taught by trainees (focus group and interviews)
- c. GP Trainers who supervised GP trainees
- d. Medical School leads (UG leads, Post Graduate leads (Training Programme Directors (TPDs)) and HEE- Regional "Deans".

Participants were identified purposively from stakeholder groups as follows; by course leads for students and trainees (MJ JR) and by using professional networks (JR LK MJ SA) for HEE Deans, and undergraduate leads. We also recruited senior educators out with the local programme. Participants were invited by email and interviewed (by one of LK, MJ and JR) either face to face or by telephone. We use the term "educator" to refer to GP trainers and programme directors and "senior educator" to refer to undergraduate leads, and HEE leads and Deans. See COREQ checklist for interviewer credentials.

Analysis

Interviews followed a topic guide, which was developed and informed by the literature. Interviews were transcribed verbatim, anonymised and data thematically analysed (23) deductively informed by Ten Cate (7) and inductively from our data. Organisation of the data was supported by word processing, spreadsheet and Nvivo software. Two independent researchers (LK, MJ) repeatedly revisited the data to refine themes, explore nuances and uncover relationships between themes. There was an ongoing dialogue between all the researchers throughout the data collection and analysis period (which happened simultaneously over time) which was discursive and reflexive in nature. This inductive approach allowed for the responsive refinement of the interview guides and

deeper exploration of emergent themes. We carefully identified verbatim quotes, which captured the themes. Towards the end of the period of data collection and analysis we noted that there were few, if any, novel themes arising from interviews and this suggests that saturation of the data was likely.

The study is reported to COREQ guidance (attached).

Results

Table 1 about here

Interviews ranged from 15 to 38 minutes in length and the focus group was 24 minutes in duration.

We identified four overarching themes as follows:

What and how students are taught?

The impact on students.

The impact on GP trainees.

The impact on the primary care environment.

What and how students are taught?

The students allocated to near peers were early in their clinical career and the focus of teaching was primarily in helping them develop core clinical knowledge and skills,

“catering to our normal curriculum” (student).

Trainees were comfortable teaching these areas and were perceived by students and colleagues as being well placed to do this. Students had strong sense of what is “valued knowledge”,

“they (the trainees) knew what we needed to know” (student).

This was knowledge that has currency in hospitals such as guidelines for managing sick patients, and knowledge for passing undergraduate exams. The teaching provided by trainees often had a secondary care focus,

“relevant to hospital medicine”. (trainee)

GP trainees were less comfortable teaching areas that were specific to primary care such as its organisation or areas such as managing long-term conditions. Some students could see the value of gaining an understanding of generalism,

“someone who’s doing GP and knew all the examinations because I doubt an ENT doctor would be able to do a very good examination” (student).

Educators worried that students were not exposed to experienced GPs who were,

“heavily skilled in the art of GP” (Training programme director).

This was mirrored by a student,

‘the major hypothetical disadvantage is that a near peer doesn’t have the depth of knowledge that a senior clinician will have’ (student).

Students however worried that,

*“quite often people (students) had GPs (non trainee tutors) who were quite set in their ways”
(student).*

In contrast the age of these trainees was directly alluded to,

*“whereas somebody who’s quite young, not that, you know soon out of medical school”
(student).*

The teaching and learning environment was key and this was shaped by enthusiastic teachers,

“Well the thing is with me is I really enjoy teaching...” (trainee).

Students valued trainees who are seen as “guides”, having recently been through this transition to become a doctor,

*“it’s still quite fresh in their mind so they can put themselves in the medical students’ shoes”
(student).*

This extended to careers advice, where GP trainees were uniquely perceived as being able to give comparative advice on early hospital and GP career paths,

“I say how life is as a doctor, both in hospital and in primary care... an insight on the best of both worlds” (trainee).

The luxury to do this teaching in protected time was identified by all,

‘I think the real draw and .. attraction is the protected time’ (trainee),

and contrasted to “on the hoof” hospital teaching. An advantage of the longitudinal course was that students’ progress was monitored and supported by their trainee tutors over a period of time,

*‘end of the year they knew what our weaknesses were so they did a targeted revision session”
(student).*

Additionally, there were perceived to be pastoral elements to the group, and one trainee described the group as being like a family. While appreciating GP teaching, students frequently expressed concern about missing “valued” teaching opportunities in hospital.

In summary, the NPT teaching was felt to confer advantages with trainees having experiences and learning agendas closely aligned with students, leading to student-centred teaching. Some concerns were raised by senior educational stakeholders about the teaching being less generalist focussed. Trainees also shared their thoughts about career progression and choices, which was a perspective that students valued.

The impact on students

Participants felt that the impact of trainees teaching on students was largely positive,

“relaxed environment meant that I have felt comfortable asking 'silly' questions” (student).

They felt able to discuss their concerns,

‘We aired a lot of things they (the students) felt worried by’ (trainee).

GP trainees felt this allowed to,

“challenge them (the students)” (trainee).

GP trainees did this by having a non-hierarchical learning environment meeting students’ learning agendas,

‘we were able to work out what we both wanted.., what we wanted to learn and ...be taught’ (student).

Whereas senior GPs were perceived to,

“trivialise our concerns about exams a bit too much” (student).

In summary, this model was felt to create a safe and collaborative learning environment in which students could challenge and be challenged, and students could address their learning needs with their near peer tutor.

The impact on GP Trainees

The impact on GPSTs appeared positive with reports of benefits to their skills, learning, resilience and self-esteem. GP educators and trainees had some anxieties about loss of clinical exposure but took a pragmatic view,

“you’re going to learn less in terms of clinical.. do less than your peers” (trainee).

GP trainees felt teaching and protected time would help with exams. Senior educators and trainees perceived developing teaching skills as having multiple benefits; to help prepare these doctors for independent learning;

‘importantly (trainees) develop the skills that they need to learn and work for a lifetime in GP’, (HEE Dean)

developing their role as a future educator,

‘if they want to talk about ...whatever that we deviate down these, these pathways of discovery that ...I can discuss it with them’ (trainee),

and developing resilience and having a protective role from burnout,

‘teaching is something that does kind of restore your batteries’ (Training programme director).

It was perceived to be career enhancing and may impact on GP Trainees' employability,

*"If I were to go to a practice and I was a trainer ... that ..would also make me more employable"
(trainee).*

The negatives for trainees were around increased stress, particularly near exams,

*"I think it (teaching) made it, made the 6 months much more stressful than it could have been"
(trainee).*

To summarise, developing themselves as educators presented a number of benefits to trainees; consolidating their knowledge, improving their skillset as lifelong learners and developing their own teaching practice. They did have concerns that focussing on teaching might conflict with their own developmental needs as a trainee in some areas.

The impact on the primary care environment

There were conflicting views on the wider impact of such schemes on the GP environment. A key motivation was persuading medical students to become GPs,

'we're going to have less people applying for GP training so that kind of long vision was there' (UG lead).

The aspiration was to set a clear career GP trajectory,

'got an ST (trainee) on my programme who was a medical student in my practice... see the next stepping stone' (Training Programme Director).

There was a hope that career choices could be actively shaped by getting students away from the gravitational pull of hospitals,

'the setting of the teaching is important ... should take place in ivory towers (hospitals) or whether it should happen in the real work context of where patients receive care' (HEE Dean).

Delivering education or training was perceived as having an impact in raising standards of care in practices,

"A practice that teaches is a better practice" (Training Programme Director).

However, opportunity costs were identified; for HEE (the educational commissioner), with its remit for the whole NHS workforce (doctors nurses etc), funding this scheme would impact on resources for training other disciplines. Concerns were also raised about spreading GP educators too thinly,

'it's hard to get enough teachers' (UG lead),

and whether a PG organisation should focus resources into UG education,

'one of them is financial .. how do we continue to afford these kind of programmes without it impacting on the production of GPs' (HEE Lead).

The regulatory environment was a constraining factor too,

'will the training programmes allow you to do that?' (UG lead).

Other resources were at a premium in practices and so trainees struggled with space to see patients or run tutorials,

'there's often space issues.' (Training Programme Director)

To summarise, there were mixed views of the impact on primary care environment of such schemes. They were felt to potentially divert funds from other priorities, particularly postgraduate training. Conversely, they were seen as a long-term investment that would improve GP recruitment, and may improve patient care and clinical standards.

Discussion

Summary

This study has shown that a near peer teaching model be successfully incorporated into GP trainee and medical student curricula. Such posts are well received by trainees, their trainers and have significantly helped to address regional shortfalls in UG placements. Near peer learning provided by trainees aids students' learning and role modelling, and was accepted (and encouraged) by senior educators. At the senior level advocating for such models is seen as a challenge, but one that must be met for the benefits of long-term community workforce planning. There appeared to be an orientation towards GP trainees teaching students "hospital medicine", which was likely to be related to their inclination to attend to the students' learning agenda, and also as a result of their own clinical experiences, which will have been predominantly hospital based. Perhaps this phenomenon is not particularly problematic for such junior medical students as it allows for the role modelling of GPs as knowledgeable clinicians, but it is important that students see primary care as 'core' within the curriculum, as supported by authentic GP clinical learning experiences. The university faculty have a role to play in clearly signposting important primary care learning outcomes and supporting trainees to deliver these outcomes, while retaining their strengths as learner-centred teachers.

Some Trainers fear that having their trainees teach harms their own learning, however by contrast trainees feel it actually enhances their learning and wider professional development. These divergent perspectives warrant further research. The "core category" or "basic social process" from our results is that there is an overarching process of vertical integration of learning (student, trainers and GP trainers) in these environments. (10)

Strengths and limitations

A particular strength of this study is its triangulation of in-depth qualitative data from all major stakeholder groups including, for the first time, senior educators. One researcher was from an outside institution and was within her first five years of completing GP training. This allowed for a different dynamic when interviewing trainee participants, as she was considered one of their near peers, and she was not involved in the delivery of either the UG programme or the innovative post programme. However, this funding model is a local one and so our findings may not be deliverable in other deaneries. We are also unable to say anything about students' educational outcomes with this methodology. A possible weakness is that there may be responder bias from students due to our recruitment methods. Additionally, these innovative posts are usually competitively selected, so we are likely to have recruited the most able trainees; anecdotally struggling trainees could perhaps be distracted by this teaching from satisfactorily completing GP training. Two researchers may have been influenced in their analysis and interpretation of the data due their roles as members of Faculty, but efforts were made to maintain reflexivity through recruitment of one researcher from an outside institution, as discussed, and through repeated discussion and negotiation regarding the data and themes. Our findings illuminate the experiences of near peer teaching in primary care from different stakeholder perspectives and could inform other forms of GP near peer teaching.

Comparison with existing literature

This study reinforces previous reports on the benefits of near peer teaching and replicates them in a contemporary UK setting. Rushforth's review (14) recommended "more information on the perceptions of teachers and learners regarding trainees", this study therefore fills this gap. Beyond increasing teaching capacity the educational benefits includes developing "communities of practice". (24) Additionally, it was not perceived to disrupt GP trainees' "externally regulated learning" such as MRCGP. (9) There may be educational and career benefits of junior doctors acting as near peer tutors. (7)

Supporting change

One aspect which this study uniquely adds to this literature is the senior educator stakeholder perspective, as projects of this nature require high level sustained structural and financial support. (21) The role of faculty or medical schools is in aligning resources with their educational mission (25) to provide the educational climate for students to learn. (26) This requires leadership, and building constituencies among stakeholders as seen in this study. (27) Those in leadership roles have to "unfreeze" and then "refreeze" curricula during change (28) and "supportive leadership from the top levels" is required during change, (29) again all echoed in this study.

Implications for research and/or practice

This study has implications in terms of the impact of near peer teaching on students' attitudes to General Practice as a career choice. Educational databases such as UKMED (ukmed.ac.uk) could be shaped to capture these long-term outcomes. However, shorter term the impact on participating trainees on retention, their summative assessment and future educator roles needs exploring, to address the drift away of newly qualified NHS GPs. Consideration needs to be given regarding what aspects of the UG curriculum are most appropriate for delivery by trainees, as well as the unique developmental needs trainees have as teachers, and this warrants further exploration. Additionally the divergence of GP trainee and GP tutor viewpoint regarding the benefits and competence of trainees as teachers needs further illumination. At a policy level recognition of a service role in UG teaching within GP training could hugely impact on GP UG teaching capacity and empower Deans to support such programmes. Our focus has been on trainees teaching medical students, but our findings could be extrapolated to learners at different levels / disciplines learning simultaneously. (11)

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