

# An evaluation of student, patient and practitioner experience of general dental practice placements

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## IN BRIEF

- Investigates learning in general dental practice.
- Looks at how students benefit from 'real world learning'.
- Examines practice views on undergraduate training in general dental practice.

Modern undergraduate dental curricula strive to provide meaningful clinical experiences for their students. Outreach learning is now well established in most UK dental schools and provides an additional clinical environment in which the whole dental team can develop their skills. This paper evaluates student, patient and practitioner experiences of a general dental practice placement scheme. A number of practices in the Yorkshire region hosted senior undergraduate dental students. All parties were very positive about the experience. The students found the experience in general dental practice to be very different from that in outreach centres, with the experiences of working in well established teams being seen as very beneficial. Practitioners and their teams reported a number of unforeseen benefits and the patients found their experiences to be overwhelmingly positive. Some students reported positive perceptions of their clinical experience, when being interviewed for their vocational training and general professional training posts.

Outreach learning is now well established in most United Kingdom dental schools and provides an additional clinical environment in which the whole dental team can develop their skills. These centres often provide excellent clinical facilities in areas of high dental need, involving patients from diverse socioeconomic and ethnic groups. Our existing outreach<sup>1</sup> centres are in purpose built seven or eight chair centres, where students work supported by one member of clinical staff and several trainee dental nurses. Each centre has a senior qualified dental nurse, and hygiene and therapy students also work closely with the undergraduates. These are often new ventures for both the schools and the Primary Care Trusts (PCTs) and often, 'dental need' is not always translated into 'demand'. A number of studies have shown patient attendance to be an issue.<sup>1,2</sup> The diversity of experience, both clinically and in terms of patient management, is not always that which was

originally expected. There have also been some concerns that although the outreach centres can provide a rich environment for learning, there is a mismatch between the environment within these centres and 'real world' general dental practice experience. In order to evaluate the logistics and potential benefits of placing students in non-adapted established practices, it was decided to carry out an evaluation in Yorkshire involving undergraduate dental students from Leeds Dental Institute.

## AIMS

This article aims to determine the value of general dental practice placements for undergraduate dental students; to explore the acceptability and benefits of student placement to general dental practices; to explore patients' views on treatment by students in general dental practice; and to determine from the students whether they perceive a difference in experience between outreach centres and practice placement.

## MATERIALS AND METHODS

Fifteen general dental practitioners (GDPs) from nine practices agreed to participate in a pilot of 4<sup>th</sup> and 5<sup>th</sup> year undergraduate student clinical placements in their practices. No modifications or investments were made to the practices.

Practices were located in rural, suburban and inner city areas. They were inspected for Health and Safety standards and Placement Agreement documents signed. All practices were or had been accredited as vocational training practices by the local deaneries. All practitioners had extensive general practice experience, ranging from 9–33 years, with a mean of 22 years. Ten practitioners were male, five were female. Two practices were private, three mixed NHS (National Health Service) and private and four exclusively NHS.

All practitioners had been vocational trainers; however, only three practitioners had previously had any involvement with undergraduate teaching. All practitioners underwent induction in their own practices. They were also provided with a comprehensive placement handbook and given access to online learning resources. They spent one day shadowing experienced clinical teachers at the Leeds Dental Institute, during which time they were given training in relation to grading of clinical work, and introduced to the grade descriptors used. The same clinical logbook sheets were used for all work, both within and without the Institute. Peer support meetings were arranged. A sessional fee was paid to cover surgery expenses and the practitioners' reduction in clinical

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output. This fee was determined from data obtained by GDPs in a previous mini-pilot study, and finance for this larger study was provided by the Strategic Health Authority.

Nineteen students were selected by the practitioners at 'Job Shop' style events, held at the Dental Institute. All students participated on a voluntary basis, having first satisfied minimum clinical requirements. All but one student who satisfied the minimum requirements were included in the volunteer group. This student did not feel confident to work yet in a practice setting. Recruitment of students continued for a period of seven months, and those who initially did not fulfil the minimum requirements were able to apply later, once these had been achieved. Students underwent a Practice Health and Safety Induction. The use of a pre-start questionnaire and assessment enabled individual aims and learning outcomes to be drawn up by the student and practitioner. Students attended 11 fortnightly sessions during the pilot scheme.

Appropriate patients were introduced by the general dental practitioner, and the patients signed a form indicating that they understood the implications of being treated by a student and that they consented to it. Unless exempt from payment, all patients made a financial contribution to their course of treatment, which was not usually wholly provided by the student. Evaluation forms were collected from students, practitioners and patients. The themes explored on the evaluation forms were identified during the previous mini pilot study.

## RESULTS

The results of the surveys are presented, using the actual comments made whenever possible.

### Practitioner survey

Of the practitioners that took part, five were female and ten male and the mean time since graduation was 22 years (range 9–33 years). All the practitioners in the study felt that the placements were worthwhile and all would recommend student placement to colleagues. They found that after the first couple of sessions, there was little disruption to the running of the practice.

The practitioners scored student attributes out of a possible score of five. The results are shown in Table 1.

**Table 1 Practitioner feedback**

	Student previous experience	Quality of student work	Patient management skills	Professionalism
Mean score out of 5	4.1	4.2	4	4.4

**Table 2 Student feedback**

	Highly valued the experience	Would recommend to peers	Felt well supported	Different to Outreach centres	Greater productivity
Percentage of respondents	100	100	100	100	100

**Table 3 Differences between outreach centres and practice**

	Greater independence	Excellent team-working	More demanding patient base	Whole family experience	High attendance rates	Appreciative patients	Personal tutelage	Contributing to the team
Percentage of respondents	26	53	32	26	32	26	26	42

**Table 4 Patient opinion of student treatment**

	Apprehensive before student treatment	Apprehensive after student treatment	Rated their treatment as excellent or very good	Trusted that quality of treatment assured	Student was courteous and professional	Gave good explanations and reassurance	Treated them in a caring manner	Happy to be treated by a student in the future
Percentage of respondents	27	0	100	100	100	100	100	100

### Benefits to the practices

All of the practices felt that they had benefited from taking part in the pilot study. Most felt that being a 'teaching practice' enhanced their practice profile and reputation within their local communities. The atmosphere of many of the practices changed and practitioners felt having students within the practice energised the team and 'gave the practice a new lease of life'. There were tangible benefits for the practice teams, with practitioners and the dental nurse operating in a joint teaching role, particularly in relation to practice protocols. All staff were very committed to making student placements a success.

Obviously there were some drawbacks. In the early days there was a time investment on the part of the general dental practitioner, although this quickly diminished as the students settled in. One respondent said that they had difficulty in finding appropriate patients, but did not expand on their comment.

The aspects of placement that the practitioners enjoyed most were the enthusiasm of the students for their practice placement and their chosen career, and seeing the students develop within their practices. The opportunity to contribute to dental education was highly valued and they particularly enjoyed developing their own teaching skills and providing discussions and tutorials for the students.

### Impact on the team

All the practice teams thoroughly enjoyed their experiences with the students. As with the practitioners, other team members felt that they had really contributed to dental education. They felt that the students integrated well within the practices and one reported that working with a student was a 'breath of fresh air'. They were hugely supportive of student placement and some reported missing 'their' student when the placement ended.

### Student survey

All participating students provided feedback (n = 19). The students valued general dental practice placement highly. This is shown in Table 2.

#### Student comments

- 'An experience never to be repeated'
- 'It has been an invaluable experience which I feel extremely lucky to have been given the opportunity to take part in'
- 'I thoroughly enjoyed my placement and feel it has been of great benefit to me'
- 'I have gained so much experience'
- 'It has been greatly admired by many potential VT trainers' (three respondents)
- 'The best thing that I have done in dental school' (three respondents).

#### Preparation for GDP placement

One hundred percent of the students felt that they were well prepared for their placements. Although 25% of them felt a little nervous before the placement, all quickly settled in and gained confidence.

#### Support for student learning

Although all students felt well supported, 80% of them felt that the support given far exceeded their expectations. A number of students (26%) perceived this high level of support as personal tutelage and felt that this encouraged them to reach their potential. Students particularly appreciated the clinical and organisational input from experienced nurses and saw this as a valuable part of the experience.

#### Clinical productivity

The quantity of clinical work produced per session increased almost three fold in a general dental practice setting (range 1.6 to 4.6), relative to output in the Dental Institute. Reasons cited by the students were mainly around working with a single experienced nurse on a regular basis and practice operational efficiency. The range and availability of equipment was also improved in the practices. In terms of quality of work, the grades that the students received for the work carried out in the practices were similar to those that the individual students were receiving in house.

### Differences between practice and outreach centres

All students felt that the GDP placement experience differed from that in outreach centres and gave the reasons shown in Table 3.

#### Joining an existing team

All students quickly assimilated into the existing team. They felt that the whole team was instrumental in the ease of their integration and felt that they had contributed to the team dynamic. They were able to see emergency patients, easing the booking congestion for the dentists, and they also enjoyed discussion with other team members while jointly developing new techniques.

#### Patient survey

Forty-eight patient questionnaires were returned, many patients having been seen over several appointments by 'their' student.

A small proportion of patients who had not been treated by students before felt slightly apprehensive, none felt this way after being treated. All rated the quality of their treatment highly and would be happy to be treated again by a student in the future (Table 4).

#### Patient comments

- 'Acted like a fully qualified dentist – very happy overall'
- 'Excellent! – very thorough' (two respondents)
- 'I felt very at ease being treated by him' (three respondents)
- 'I cannot speak too highly of her'
- 'Very professional. I am sure that he will be a great success'
- 'Pleasant manner, confident and courteous' (four respondents)
- 'Polite, caring and efficient. He took everything in his stride.'

### DISCUSSION

Although there is a body of literature in relation to the value of outreach placements in dental education, there is little available on the value of placements in general dental practice.<sup>3</sup>

The results of this study clearly demonstrate that the students greatly valued the opportunity to undertake general practice placements. Although the student

experience varied from practice to practice, they all had experiences beyond that which could be provided in the LDI or outreach centres including:

- The opportunity to provide dentures for patients in residential homes on a domiciliary basis
- Working alongside practitioners with a special interest in orthodontics, removing appliances, fitting retainers, and monitoring retention
- Working with practitioners with endodontic specialty training, using microscopes and other more advanced endodontic equipment
- Seeing practitioners manage their own professional development
- Use of additional oral surgery techniques and instruments
- Emergency management of aesthetic restorative failures
- The value of 'the team'.

The students valued the experience so much that they were willing to make long journeys to rural practices to undertake these placements. They also felt that when applying for vocational posts, their prospective employers looked favourably on this additional experience.

Having had experience of both outreach centres and individual general dental practices, this group of students were in a position to comment on the differences between the two types of experience. Eaton<sup>4</sup> stressed the importance of 'real world' experiences as part of the undergraduate curriculum and predicted that placements in general dental practice would be a thing of the future in his paper in 2005. Elkind *et al.*<sup>5</sup> also stressed the importance of replicating the primary dental care practice experience, and what better way to do this than place students in existing successful practices?

Participating students recognised that in practice, patients are often more demanding or had higher expectations,<sup>7</sup> however, they also found that these patients were more appreciative of their efforts. One of the differences between practice and outreach centres was the increase in patient attendance rates and this could also have influenced the increased clinical productivity<sup>8</sup> that the students experienced.

Teamworking with an established team was also highly valued and this has been

found to also be the case in outreach centres.<sup>1,6</sup> Having the same experienced dental nurse had benefits beyond excellent chairside support. They were able to act as co-supervisors, being there to act as a go-between between student and practitioners and also to offer appropriate advice.

It would also appear from the practitioner comments (Table 1) that the eligibility criteria for students to apply for the scheme were set at the correct level. The necessity for minimum levels of clinical experience was not always appreciated by students who were not ready for this type of experience. Strategies to manage student expectation of who would benefit most from this will need to be addressed. Due to the limited number of places available in the pilot scheme there were inevitably some students who were disappointed. If placements of this type were to be extended as an integral part of the curriculum, students who were not yet ready for placement with the main cohort would need additional 'in house' clinical opportunities to achieve the required minimum level of clinical experience. Some students felt that achieving the required level of experience would be a good motivator for them.

It is interesting that having students in the practice and managing the quality of the experience had unexpected benefits for both the practices and the teams and overall was perceived as a very positive experience. The whole team felt involved in providing a rewarding experience for the students and it is clear from the feedback that the students valued these efforts in return. This finding reflects those found in an earlier PDS pilot study.<sup>3</sup> Fitting into an existing team is a skill that all graduates will need to learn and our students managed this well. They were invited to practice social events and away days, as well as 'in house' training sessions. They were able to see an ethos of life-long learning being implemented within the general dental practice setting.

As was found in previous studies,<sup>3</sup> the practitioners taking part were unanimously in favour of having students placed in their practices in the future. All the student practitioner relationships were successful and all practitioners acknowledge that selecting the right student for

their practice, team and patients was a key element in this.

They perceived being recognised as a training practice by the university as a positive attribute and wanted to advertise this fact by the display of certificates and plaques. They enjoyed case based discussions and sharing knowledge and felt that the presence of students had an invigorating influence on the practices. Practitioners with many years' experience were happy to have the opportunity to 'give something back' to the profession, and related well to the students. Obviously in the early placement sessions, the students needed a greater degree of support than they did later in the placement. The practitioners felt that longer periods of placement would ultimately compensate for the time invested in supporting the students in the early days. Most practitioners would have preferred to have students for the whole year. Initially the practitioners would only lightly book their own treatment session or would devote the session to administration in order to increase their availability to supervise the student. A previous pilot study<sup>3</sup> had a practitioner supervising three students and providing no treatment themselves on that session, but with a single operator we found that after appropriate induction it was feasible for practitioners to treat some patients during the session. Over a period of weeks as they felt more confident about the amount of support that the student was likely to require, they were able to increase their own output accordingly.

One concern that practitioners had initially was how to ask patients if they would like to receive treatment from a student. Advice was given by the Institute as obviously we introduce patients to student treatment routinely. Once the GDPs overcame this concern, they became more confident in approaching patients and were often surprised at how happy patients were to take part in this experience. Only one practitioner felt that recruiting the 'right' patients for his student was difficult, and it was interesting that he was the least experienced practitioner and the one who had most concerns about recruitment.

As other studies have shown,<sup>3</sup> our patients were unanimously happy with

the quality and manner of their care. Many patients appreciated the increased time devoted to their treatment, however, a small number were less happy at the increased appointment length. Patients, too, felt that they were contributing to the education of the dentists of the future and sent the practices and the Institute letters of commendation for the students and the placements. The patients trusted their GDP to ensure adequate supervision and quality of care; for many patients, this was the key to acceptance of student treatment. Some patients were particularly pleased with the care shown towards their children. The fact that all patients would be happy to be treated by students in the future will hopefully make practitioners more comfortable about introducing patients to students for treatment in the future.

## CONCLUSIONS

All students found the placements to be of great value in their preparation for independent dental practice. All of the participating practices were happy with the placements and would recommend student placements to other practitioners. Patients were very happy to be treated by students in the future. The patients perceived the quality of the treatment that they received to be high. The students found the experience in general dental practice to be very different from that in outreach centres. Other unforeseen positive outcomes were perceived by the practices, students and patients.

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