

# Perceptions of a simulated general dental practice facility – reported experiences from past students at the Maurice Wohl General Dental Practice Centre 2001–2008

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## VERIFIABLE CPD PAPER

This article assesses the perceived value of a simulated general dental practice centre as reported by past undergraduates over five years. Various aspects of teaching and related outcomes are explored based on responses received from anonymous questionnaires. A team based approach to cooperative learning led by current practitioners experienced in primary dental care was seen as pivotal to the huge success of the teaching model. Moreover the role of cooperative learning and its influence on building individual clinical confidence and acumen was considered highly beneficial as part of the transition from novice to expert. **Methodology** An anonymous questionnaire was distributed to students six months after qualification for a period of five years. The last registered postal address held by the Institute was used for this purpose. The years surveyed were: 2001–2002, 2002–2003, 2003–2004, 2005–2006 and 2007–2008. The questionnaire provided for both qualitative aspects of feedback and a quantitative representation of the overall perception of effectiveness of the General Dental Practice Centre, as expressed by a visual analogue scale. **Results** In total 135 questionnaires were returned representing a return rate of 53%. From the responses received 99% of the students reported that they enjoyed their sessions at the Centre with 96% expressing satisfaction with the teaching regime. The mean visual analogue scale rating the centre overall was reported as 83%, with a year on year increase ranging from 76–92%. Rich qualitative data were derived from free text responses. **Conclusion** A simulated general dental practice centre was highly rated by past dental students in terms of the overall learning experience received and its relevance to later vocational training. By far the most consistently reported attribute was the opportunity to practise close support four handed dentistry with a nurse. Training in practice management and organisational skills were viewed as important with effective teamwork and a friendly environment seen as conducive to building up knowledge and confidence. The role of experienced current primary care practitioners as teachers was seen to be very effective in this setting.

## INTRODUCTION

Ever since the General Dental Council published its document *The first five years – a framework for undergraduate education*<sup>1</sup> there have been a number of innovative approaches to establishing primary care dental education within the current curriculum.<sup>2,3</sup>

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Over 85% of dental students will become primary care practitioners<sup>4</sup> and therefore appropriate recognition of their needs in this regard has long been recognised.

Outreach teaching forms a significant part of many of the present initiatives and has been widely reported in the literature.<sup>5,6</sup>

In this paper, we discuss the model of the Maurice Wohl General Dental Practice Centre (Fig. 1), a multi surgery facility that opened in 1987 where two former private houses were converted into eight self-contained dental units, situated near to King's College London Dental Institute.

Primarily focused on developing the role of the undergraduate as team leader, a cooperative approach to teaching and learning, led by current primary care practitioners, has been shown to be

highly successful with past students.

Feedback from five years of anonymous questionnaires is unequivocal in terms of the very high approval ratings consistently reported.

## Outline of the centre

As part of the Department of Primary Dental Care, the Maurice Wohl General Dental Practice Centre provides pre-graduation students with a year's experience of adult comprehensive whole patient care, in a setting that closely resembles a modern dental practice. Each student is assigned a fully equipped surgery together with individual nursing and reception support. The nurses are a mix of both qualified and experienced, together with trainees from the School of Dental

## IN BRIEF

- A co-operative approach to team learning in a dedicated primary dental care setting is shown to be highly regarded by past cohorts of undergraduates.
- Experienced and committed general dental practitioners were seen to be very effective in the delivery of this style of learning.
- Findings confirm that a close simulation of a real working environment enhances later experiences in vocational training.



Fig. 1 The Maurice Wohl GDP Centre



Fig. 2 Four-handed dentistry at the Centre



Fig. 3 A typical surgery before renovation



Fig. 4 A typical surgery after renovation

Nursing. Patients identified as suitable for the Centre are referred from the dental hospital. The underpinning rationale is to provide as real an exposure to team led primary care dentistry as possible, within the scope and limitations of the undergraduate curriculum. The students adopt the role of a trainee clinical team leader working closely alongside a dental nurse (Fig. 2). Two student hygienists

## Graduate questionnaire

PLEASE TICK THE BOXES AS APPROPRIATE

1. Did you enjoy your sessions at the Centre?  
Yes  No  Don't know
2. Were you satisfied with the teaching experience provided by the Centre?  
Yes  No  Don't know
3. Are you currently on a VDP Scheme?  
Yes  No

If YES - please name which one

[GO TO Q 4]

If NO - what are you doing professionally (please circle)

CDSVT      HO      GPT      Armed Forces VT      Other (please specify)      [GO TO Q 5]

4. Please name THREE areas where the Centre has been helpful in your VDP activities

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

[GO TO Q 6]

5. If not a VDP please name THREE areas where the Centre has been helpful to you

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

6. Please name THREE areas where the Centre could offer more help during Undergraduate training

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

7. Please rate the Centre in terms of overall effectiveness by placing a mark as appropriate on the line below:

Very poor \_\_\_\_\_ Excellent

Fig. 5 Maurice Wohl GDP Centre Graduate Questionnaire

also support each clinical session, working to agreed treatment plans and prescriptions. Separate commercial laboratories provide technical services. A clinical director oversees the Centre together with a senior nurse manager, supported by nursing, reception and administrative staff. Ultimate responsibility for the facility lies with the Head of Primary Dental Care. This arrangement permits most day-to-day activities to be carried out within the Centre, but with ready access to specialist services such as oral surgery available from the adjacent main hospital. Two fortnightly sessions over three academic terms allow for approximately one third of the present intake of 180 students to use

the Centre. In order to meet an increased undergraduate and patient demand, the Centre underwent a complete refurbishment in 2005 (Figs 3-4) to include two further surgeries.

A small team of experienced part-time practitioners are exclusively assigned to teaching. Most hold dental postgraduate qualifications and undergone in-service teacher training within the Institute. The nurse manager and her staff, principally through individual chairside interactions, deliver important adjunctive teaching for example cross infection control issues.

The students are randomly selected from the final year cohort and pre-organised into groups of eight. Each

clinical session is preceded by half an hour of small group learning, which can vary from teacher led tutorials to student centred projects. Currently this is confined to dental students with occasional nurse input. A list of relevant topics and subject areas is provided for guidance at the beginning of each term. The teacher can use this facility flexibly in order to foster close interaction with the students throughout their time at the Centre. The emphasis is on building an effective knowledge sharing process through cooperative learning.<sup>7</sup>

The teaching at the Centre firmly embraces the stated aims and objectives of the Department of Primary Care Dentistry, which are included in Table 1. The Centre also delivers specialist teaching in rotary endodontics, practice management, clinical governance together with career advice.

### METHODOLOGY

Six months post graduation an anonymous questionnaire was distributed to students using the last registered postal address held by the Institute. The years surveyed were: 2001-2002, 2002-2003, 2003-2004, 2005-2006 and 2007-2008. Closure, renovations, new commissioning and later cross infection issues were thought prejudicial to meaningful feedback; consequently no surveys were carried out in years 2004-2005 and 2006-2007.

The design of the questionnaire allowed for both qualitative and quantitative aspects of feedback based on an instrument that has been previously piloted and used in other studies. Simplicity of use and ready understanding were sought in order to encourage an adequate response rate. Both open and closed questions were set, together with a visual analogue scale to give an overall percentage rating for the centre (very poor - excellent), as used in previous studies.<sup>7</sup> A rich source of qualitative data was generated from the open questions, which allowed for a thematic approach to analysis.

In total 136 questionnaires (Fig. 5) were collected giving an overall response rate of 53%.

### RESULTS

The results are presented in Tables 2-8.

A total of 283 students attended the Maurice Wohl GDP Centre during the study period. Of these, 256 qualified in June of

Table 1 Primary care departmental aims and objectives	
<b>Aims</b>	
The aim is to teach fully integrated and high quality dental care to undergraduate dental students and professionals complementary to dentistry in a team setting and to ease the transition upon qualification to work in general dental practice (vocational training).	
<b>Objectives</b>	
At the conclusion of the course, the student should:	
<ul style="list-style-type: none"> <li>• Be able to work with team members to plan, prescribe and deliver comprehensive dental care to patients</li> <li>• Demonstrate good time management and an understanding of clinical audit, peer review and business skills</li> <li>• Be competent at a range of restorative dental procedures</li> <li>• Be prepared for General Professional Training and Continuing Professional Education Prescribe appropriate elements of care to appropriate team members.</li> </ul>	

Table 2 Responses to the questionnaires				
Year	Eligible students (no. who qualified)	No. of questionnaires undelivered	Maximum possible response	No. of questionnaires returned
2001-2	45	7	38	26
2002-3	45	6	39	27
2003-4	53	6	47	32
2005-6	57	5	52	21
2007-8	56	6	50	30
Total	256	30	226	136
Response Rate				53%

Table 3 Approval ratings for the general questions			
General questions	Yes (%)	No (%)	Don't know (%)
Did you enjoy your sessions at the Centre?	99	1	0
Were you satisfied with the teaching experience provided by the Centre?	96	3	1

Table 4 The Centre's main areas of strength as identified by the respective percentages of respondents (n = 136)	
Effective four handed dentistry and close support	75%
Training in practice management and organisation in preparation for Vocational Training	57%
Effective teamwork and a friendly learning environment congenial to building up knowledge and confidence	41%
New and innovative treatment modalities being taught and offered (eg HERO files)	33%
Offering integrated total patient care similar to practice	31%
Career advice and training in communications skills	28%
Improvements in clinical skills and acumen learning from the tutors	23%
Setting of the surgery with own patient list	19%

the corresponding year and formed the cohort for this study.

The total number of received questionnaires was (n = 136) from 256 distributed giving a response rate of 53%.

One hundred and thirty-three out of the 136 respondents (98%) at the time of survey were undertaking VT/GPT while the remaining respondents were all House Officers.

**Table 5 Identified areas of strength**

## Four-handed dentistry and close support

'Mine was a very useful experience: having a dental nurse made all the difference'  
 'Nurses were very friendly and good at their jobs. They were motivated and helpful at all times'  
 'Enjoyed my time at centre. Reception staff and nurses had all been helpful and most importantly friendly to the students'  
 'Everything was so organised, and the staff were the best. We had wonderful tutors and the nurses were amazing. I really looked forward to coming here in the final year. I felt it was one place where everyone was actually wholeheartedly making an effort to make things easy for us while we were learning. It is the one aspect of my undergraduate training that I really miss. I feel it has given me very valuable experience for general dental practice – if only we could work in an environment like this more often!  
 'With four-handed dentistry properly executed, my learning was much more focused and intense'  
 'Four-handed dentistry made it easier for me to talk to my clinical teachers and ask the right questions because everything was so well-coordinated: I learn more like this'  
 'I was more focused and less rushed, especially when the surgery set-up was laid out for me beforehand. I felt relaxed whenever I worked at the GDP Centre and genuinely felt that I learnt my clinical skills much quicker in this environment'

## Practice management and organisation in preparation for vocational training

'GDP Centre has proven to be the most useful when in VT'  
 'The skills I learnt have greatly helped my transition to VT and General Practice and even my trainer commented on how I had found this transition much easier than his previous VTs. I put it down solely to my experience at the Maurice Wohl GDP Centre'  
 'My GDP Experience taught me how to work in a dental team properly. After all most of us are in general practice and it is wonderful to be able to have some insights into real practice the way we were taught at the GDP Centre'  
 'There are many instances in practice I have looked back at the many things you taught me at the GDP Centre: seminars, clinical teaching, having a chat afterwards to reflect how my clinical sessions went all were immensely helpful'

## Effective teamwork and a friendly learning environment conducive to building up knowledge and confidence

'The GDP Centre was very helpful as it was a true representation of the practice environment, and it made it really easy for me to settle down quickly in the VT practice'  
 'Most useful part of my five years training was working in the Maurice Wohl GDP Centre'  
 'My experiences at the Centre were very positive and I gained a lot of confidence in many areas. Staff were always very positive and supportive, while not checking on students all the time which made me feel trusted and competent'  
 'Excellent quality of teaching by clinical teachers who will go out of their way to help. Very helpful nurses. Excellent experience'  
 'One of the reasons I enjoyed Maurice Wohl GDP Centre so much was because it was actually personal and I felt like clinical teachers actually wanted to reach out rather than feeling like one of the many in a flock of sheep like in other departments.'  
 'The seminars were all excellent, very informative and relevant to practice which is what we really need for the rest of the curriculum as well'  
 'Enjoyed my time at the GDP Centre. Reception staff and nurses had all been helpful and most importantly friendly to the students. It really works well as a team'  
 'Well, I did not have to stress myself whenever I was at the GDP Centre, and this calm and civilised environment gave me an insight as to how the dental team should work together'  
 'This was the best clinical experience I had; it is a true representation of what practice life is like. I really had a great time there'  
 'I was taught very well by my clinical teachers. They were very experienced but also very approachable. I found coming to Maurice Wohl the best clinic in my timetable'

## Experience of integrated total patient care similar to practice

'The centre would be great for introducing new ways of practising for final years. It allows us to get a real feel of what it is like in the real world (except that there are tutors present!)'  
 'Mine was a very useful experience. Staff made the environment welcoming and helpful. The amount of clinical supervision was exactly right. Well done to everyone!  
 'Working at the GDP centre was by far the best part of undergraduate training as a dentist. It was exactly what you needed to get into vocational training and beyond'  
 'I thoroughly enjoyed working at the GDP Centre and felt that it helped me prepare for real life dentistry. All the staff were very friendly and helpful and it was a pleasure to work there'

## Career advice and training in communications skills

'My clinical teacher was fantastic - very approachable and encouraging, and throughout the year, he gave us such an insight into general dental practice, led by example, showing how we should effectively communicate with patients and the rest of the dental team. This, I believe, is the hidden curriculum and the value that makes the GDP Centre so popular with the students'  
 'The career advice and all the tips on how to secure a VT position including reviewing our CVs for us proved to be priceless'  
 'I really appreciated the guidance I was given (throughout the year) by my clinical teachers in terms of practical advice on all aspects of VT. Without their timely advice at the most crucial moments (often at short notice) I really would have struggled in securing my VT post'  
 'They were incredible not just as clinical teachers but for advice and support through what can be a stressful year. Their insight into VT and career development really was a godsend'

## Clinical skills learnt from the teachers

'The tutorials I found especially helpful were those where we observed the tutor performing some aspects of a clinical procedure'  
 'My clinical teacher was excellent. Learnt a lot, had an enjoyable final year and he also gave us the clinical freedom to make our own decisions a lot more. This was the best preparation for VT'  
 'I thoroughly enjoyed my time at Maurice Wohl and found staff always polite, helpful and approachable. I found this an invaluable experience and would recommend the scheme to anyone. There are skills that I solely developed working at Maurice Wohl that I currently found extremely useful in the practice. I hope the project continues to flourish for many years to come'

**Table 5 Identified areas of strength**

Continued from page 374

**The learning environment**

'Mine was a very useful experience. Staff made the environment welcoming and helpful. The amount of clinical supervision was exactly right. Well done to everyone!  
 'The Maurice Wohl GDP Centre was a pleasant "breach" from the dental hospital environment. It allowed good relationships to develop between staff and students and overall was a nice experience.'  
 'Everything was so organised, and the staff were the best. We had wonderful tutors and the nurses were amazing. I really looked forward to coming here in the final year. I felt it was one place where everyone was actually wholeheartedly making an effort to make things easy for us while we were learning. It is the one aspect of my undergraduate training that I really miss. I feel it has given me very valuable experience for general dental practice – if only we could work in an environment like this more often!  
 'I benefited a lot from the good one to one and small group clinical teaching'  
 'It is lovely to be able to truly carry out comprehensive total patient care for patients from start to finish. You take credit for what you have done right and you see your own limitations, too. Not only that, we had the same clinical teacher(s) every week with some excellent and consistent chairside teaching. I really learnt a lot and it was wonderful and reassuring'

The analyses of the findings from the respondents are shown in Tables 3–8. An overwhelming majority of ex-students were satisfied with the teaching provided and enjoyed their learning experience at the Centre.

**DISCUSSION**

It is clear from the survey responses that the overwhelming majority of students enjoyed the experience of being at the Centre and were very satisfied with the teaching received. Looking at the thematic responses by far the most reported observation was the ability to work with a nurse in a close support environment (75%).<sup>7</sup> Before 2004–5 exclusive access to one to one nursing was not consistently available for every student treatment session and this was reflected in the general feedback. Since that time better nursing distribution has largely eliminated this feature (Table 6). Students appreciated the 'total care' team based approach to treatment. This is perhaps not to be unexpected and has been commented on elsewhere.<sup>8</sup> Training in the art of practice management and organisation was seen as the second most important factor (57%). The advice and guidance given by individual clinical teachers was perceived as being both relevant and important to future career development. It is clear from the feedback received that the teachers were especially identified as strong positive role models, exerting significant influence over their students. The fact that consistency of chairside teaching was possible under this regime is thought to be a major contributor to the success of the model.

The natural role for a simulated general dental practice is to smooth the transition

**Table 6 The Centre's main areas for improvement as identified by the respective percentages of respondents (n = 136)**

More GDP sessions for students	36%
Better equipment for the Centre	61% (Before renovation) 2% (After renovation)
More seminars on practice management	25%
To be able to see more patients and/or those requiring more complex treatment plans	24%
Better availability of nurses	28% (Up-to 2004) 6% (Since 2005)
More clinical teachers are required	14%
Better choice of dental materials	10%
More clinical/ practical demonstrations	6%
Better organised tutorials	2%

from dental school to vocational training and this aspect is commented on favourably in the survey. As part of the so-called continuum of dental education,<sup>9</sup> the centre prepares the undergraduate for the working conditions they will encounter next. It is not meant to reflect a hospital or clinic environment and is readily identified as a familiar dental practice. It does share many of the attributes of an outreach setting, but would best fit the description of being an extended clinical environment. The learning environment itself appears to have featured strongly in the feedback (41%). From our experience as clinical teachers we have observed that effective team based learning takes place in a setting that is perceived as nurturing, supportive and non-threatening.<sup>10</sup> In our view a significant role in developing crucially important individual clinical skills is linked to acquiring appropriate levels of personal confidence, allied to a sense of judgement. These attributes are often difficult for many students to acquire

when undergraduates.<sup>11</sup> Most of the clinical teaching takes place on a one to one basis within the surgery confines, allowing for a more personalised and potentially more in depth encounter than perhaps would be the case on a busy open clinic. This style of teaching can legitimately be described as 'relationship teaching'.<sup>12</sup> It also provides considerable scope to involve trainee dental nurses in the cooperative learning process, particularly in regard to the enhancement of close support skills and compliance with cross infection control measures. Thus the learner becomes a stakeholder in the learning process.<sup>13</sup> The success of the cooperative strategy is heavily dependent on encouraging both students and nurses to think and to take ownership and responsibility for their decision-making. This in turn requires the teacher to adopt a slightly less hands-on approach to overall supervision. Interventions are indicated more where issues relating to specific learning points or patient safety are deemed important. The

role of the teacher in this setting is thus more likened to that of a guide and trusted colleague, allowing for a more natural development along the pathway of novice to expert.<sup>14</sup>

The physical layout of the Centre also tends to foster a sense of personal ownership and belonging. We would postulate that in our experience the closer a teaching model simulates real working conditions, the more team performance tends to reflect that encountered in real life.<sup>15</sup> The emphasis is on creating a positive learning platform whereby all members of the dental team can flourish.<sup>16</sup>

Areas for improvement were generally focused either on upgrading the existing equipment (61% before the renovation, 2% after) or for the opportunity to have more sessions at the centre (36%). More seminars on practice management were seen as desirable as well as the opportunity to treat more advanced cases.

Access to these facilities by the entire student body is not possible under existing arrangements. The small increase in numbers of surgeries is insufficient to accommodate the training needs of the whole dental team within the existing building. There is a lack of physical potential to further expand the site sufficiently in order to address these issues. As a response to this the Dental Institute together with the University of Portsmouth in 2010 will be jointly opening an expanded outreach facility in that city. This will provide a further 20 chairs as part of a developing programme of outreach teaching between the two institutions. In years to come the opportunity to make comparisons between the two modes of delivery can be considered.

## CONCLUSIONS

A simulated practice environment as evidenced by feedback received from five years of past students strongly confirms the success of this teaching model. It works well because of the team approach to delivering high quality comprehensive adult care, led by current primary care practitioners. Considerable efforts have been made to achieve an optimum learning environment in which the undergraduate can safely develop and progress with confidence to the next stage in their professional development.

**Table 7 Identified areas for improvement**

More GDP sessions for students	
'More GDP Sessions (please)'	'Realistic treatment plans similar to what we are expected to do in practice: I just wished I had more GDP sessions when I was a dental student'
Better equipment for the Centre (before the renovation of the surgeries)	
'The Centre must be invested in and the equipment must be updated, especially the suction and surgery lighting. Please don't let the best of learning experience of the GKT course crumble to pieces'	'Continue as you are and modernise the surgeries'
'Please get better suction and revamp the surgeries'	'The equipment should be upgraded'
'Lovely teachers, staff and patients: pity about the equipment'	
More seminars on dental practice management	
'The GDP Centre is the only unit that is staffed exclusively by teachers who are also dental practitioners. They give very sensible advice about contemporary issues in practice. The more of the same the better: concentrate the seminars on these issues. We really need this knowledge before we qualify and we are not getting it elsewhere in the course'	
To see more patients requiring complex treatment plans	
'More crown and bridge cases please'	'I would like to have been able to see more patients at the GDP Centre, especially those who require more complex treatment, as we do not get enough exposure to these clinical cases elsewhere in our training'
'Giving the students the freedom of booking patients the time that they need will allow them to gain more independence and also encourage time management and preparation for each procedure. It may also result in them seeing more patients which would prepare them for VI when they will be expected to see 15–25 patients per day'	
'Perhaps to increase the volume of patients we see as the year progresses to improve our efficiency'	

**Table 8 Percentage overall rating for the Centre (n = 136)**

Mean Visual Analogue Scale score for the Centre in terms of overall effectiveness expressed in percentage (within a range from 0: very poor to 100: excellent)	83
Breakdown for the Visual Analogue Scales for the years they were used	
Year	Mean VAS Score (out of 100)
2002–3	76
2003–4	81
2005–6	82
2007–8	92

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