Experiences of clinical teaching for dental core trainees working in hospital

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IN BRIEF

- Demonstrates the benefits that dental core trainees (DCTs) rate very highly from the clinical teaching they receive in the clinic and bedside settings.
- Highlights that clinical teaching of DCTs comes from a multitude of inter-professional teachers.
- Suggests chairside and bedside teaching is often a forgotten source of excellent teaching opportunities, which benefit patients and trainees alike.

EDUCATION

There is recognition that the provision of excellence in education and training results in a skilled and competent workforce. However, the educational experiences of dental core trainees (DCT's) working in the hospital oral and maxillofacial surgery (OMFS) setting have not been previously investigated. In this paper, we examine DCT's learning experiences both 'formal' and 'non-formal' within the hospital setting of ward and clinic-based teaching. Are hospital dental core trainees receiving a meaningful educational experience? To conclude this paper, the authors recommend methods, based upon sound educational principles, to maximise the value of clinical sessions for teaching.

INTRODUCTION

The need for quality in the education of doctors and dentists in training has been highlighted in several key papers,[1,2] and there is recognition that the provision of excellence in education and training results in a skilled and competent workforce. The introduction of the COPDEND UK Dental Foundation Training Curriculum[3] sought to develop clinical skills and improve techniques in patient management as key competencies. With this model, the option of working in the secondary care setting allows for experiencing further 'dynamic learning environments' as suggested in the curriculum.[3]

Opportunities for learning in the clinical setting for dental core trainees working within oral and maxillofacial units (OMFS) offers additional experience and skills, such as at the bedside and on the ward, at the chairside and in the outpatient clinic. However, the educational experiences of trainees working in the hospital (OMFS) setting have not been investigated. How frequent is teaching both formally and informally, and how effective is it perceived to be by the trainee? There is a large body of medical literature that sets out to document teaching at the bedside for medical trainees and its development of core competencies.[4–6]. In contrast, the literature that examines the chairside as an opportunity for learning and teaching for dental core trainees has not been investigated. This 'non-formal learning' as described by Eraut[7] is an ideal opportunity to acquire knowledge, examination technique and problem solving skills within the clinical setting with a patient. As the authors believe that a large part of our learning is done out of formal contexts, we ask, are our trainees missing vital learning opportunities?

In this paper, we set out to examine what dental trainees' (DCTs) learning experiences are within the hospital setting of ward and clinic-based teaching, both 'formal and non-formal'. Does the hospital setting really offer a 'dynamic training environment'? As the National Health Service (NHS) adapts to new practices and efficiencies, are hospital dental core trainees still receiving a meaningful educational experience, or is teaching in the clinic or at the bedside being overlooked? Moreover, what value do the trainees place on their experience of clinical teaching? Should we be looking more towards structured and formalised chairside teaching sessions?

To conclude this paper, the authors recommend methods, based upon sound educational principles, to maximise the value of clinical sessions for training and the trainees.

METHOD

In this study, 31 DCTs working in five separate hospitals in the Yorkshire and Humber region documented their experiences of clinical teaching in both ward and outpatient settings. This was by means of a questionnaire (Fig. 1) that was filled out anonymously. The length of clinical experience in hospital was recorded. The trainees were questioned on the number of formal teaching sessions they received from their departments, together with the range of teachers involved. Regarding clinical teaching, the number and frequency of any ward or clinic-based teaching was recorded and the educational benefit was graded from one (poor) to five (excellent) by the trainee for their impression of teaching they received. Ward and patient-based teaching together with clinic and chairside teaching was recorded.

RESULTS

A total of 31 DCTs were included in the study. Twenty-three trainees had been in their position for approximately 12 months and eight trainees had 6 months experience.

Ninety-four percent (n = 29) of the DCTs had experienced some ward based teaching during their employment. Of these, 14 had experienced ten or less episodes of teaching at the bedside (between one and five episodes n = 8; six to ten sessions n = 6, and 13 had experienced more than ten episodes of teaching). Two trainees did not answer the question and two trainees 2 (6%) had not experienced any teaching at the bedside.

A total of 11 (35%) trainees had experienced a formal teaching ward round with patient-based clinical teaching on the ward during their hospital post.

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For clinical teaching at the chairside, eight trainees (26%) had not received any teaching, however, 23 (74%) had experienced some teaching at the chairside. Of these, 12 (39%) had ten or less teaching episodes, (between one and four episodes n = 7; between five and ten episodes n = 5), and 11 (35%) had received more than ten episodes of teaching in the clinic.

A wide variety of teachers were documented by the DCTs. Teaching was documented by trainees as having been given by consultants (15; 48%), speciality trainees and speciality doctors (20, 65%), nurses (5, 16%), speech and language therapists and physiotherapists (5, 16%).

The trainees were asked to grade how beneficial they felt the clinic teaching had been. Fourteen trainees graded this teaching as five or excellent (45%), 13 graded very good (42%) with a score four, and one ranking this as good. Three trainees failed to grade the clinical teaching they received. This was mirrored with the grades given for bedside teaching, with 36% scoring five and 44% scoring four; the remaining scoring three.

Within three of the departments formal teaching was scheduled to be held weekly, lasting up to 2 hours. The remaining two departments had formal teaching every other week. All trainees were expected to attend three formal regional study days and present scientific and audit related papers.

Please answer the following questions on your experiences of clinical teaching whilst in post:

How long have you been in post?

During your time as a maxillofacial SHO/Trainee, have you been exposed to teaching at the bedside?
Yes ☐ or No ☐ (please tick)

On how many occasions have you had dedicated teaching with a patient at the bedside?

Please rate this as a learning experience on the following scale:
1. Poor ☐ 2. Unsatisfactory ☐ 3. Satisfactory ☐ 4. Good ☐ 5. Excellent ☐

Have you had a dedicated teaching ward round and if so, how many?

Have you been exposed to teaching at the chairside in the out-patient clinic?
Yes ☐ or No ☐ (please tick)

On how many occasions have you had teaching with a patient at the chairside?

Please rate this as a learning experience on the following scale:
1. Poor ☐ 2. Unsatisfactory ☐ 3. Satisfactory ☐ 4. Good ☐ 5. Excellent ☐

Please indicate your teachers for your teaching sessions? (please tick):
Consultant ☐ SpR ☐ Fellow ☐ Colleague ☐ Nurse ☐
Dietician ☐ Speech/Language Therapy ☐ Physiotherapy ☐
Allied healthcare professional ☐ Other ☐

How often do you have formal departmental teaching?

Thank you for taking valuable time to fill in this questionnaire.

Fig. 1 Questionnaire on clinical teaching in maxillofacial surgery

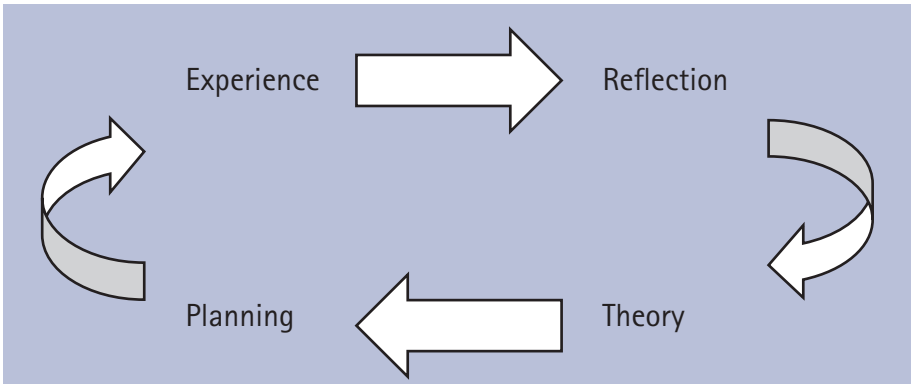

Fig. 2 The experiential learning cycle

DISCUSSION

Teaching in the presence of the patient, either on the ward or in the clinic is the foundation of medical and dental education, and the quality of this and the training received by students and trainees is critical to the safe delivery of care to our patients.

With this in mind, we set out to document teaching and learning experiences of 31 DCTs. We concentrated on those areas where we would expect clinical teaching to commonly occur, notably in the clinic setting and within OMFS hospital practice at the bedside.

From this study there appears to be an overwhelming majority of trainees who have experienced some clinical teaching at the bedside and on the ward. This is not surprising, as for most trainees entering hospital service, experiencing the ward environment can be very daunting. The medical education literature states the benefits of this ward-based teaching as it allows the attainment of a multitude of clinical skills and competencies,[8] all of which are stipulated in the core training curriculum (COPDEND).

In this study 11 (35%) trainees had experienced a formal teaching ward round. This learning at the bedside allows a focused clinical context and active participation by the trainee in history taking, physical examination and clinical reasoning.[9] It also presents an ideal opportunity to undertake work-based assessments (WBAs), which form the basis of formative assessments and are educational tools for learning.[10] All DCTs are expected to complete an 'electronic portfolio' and WBAs are an important part of this.

The study also highlights that the DCTs work closely with a range of allied health professionals that includes general nursing staff, physiotherapists and other medical specialists. Many of these also engage in the teaching of DCTs. This broad range of communicating and conversing with different professionals serves those competency domains of 'professionalism, leadership and communication' as set out in the COPDEND curriculum (2013-2014).

Consultants appear to be heavily involved in the teaching programmes, with 15 trainees having experienced dedicated consultant led teaching. Teaching in some capacity is expected from most doctors and is seen as a key part of clinical development. In fact, the General Medical Council[11] stipulates that all doctors should contribute to the education and training of other doctors, which appears to be the case in this study. As a consultant in a busy hospital setting there is a complex balance between maintaining your service output, while providing the trainee with a meaningful educational experience. This can be more closely reflected when looking at teaching in the outpatient setting.[12]

In this study, 23 trainees experienced teaching in the clinic setting, and 11 trainees had received this on more than ten occasions. However, worryingly, almost one quarter of hospital DCTs had not experienced teaching

in the outpatient/chairside setting and seven had received four or less teaching episodes. This may be explained by the fact that although outpatient settings provide increased exposure to patients, service commitments and time constraints mean that the opportunity for learning may be restricted, with little time for discussion of cases, supervision and feedback.[13]

Yet, we would suggest that the chairside offers an excellent opportunity for trainees' teaching and every effort should be made to involve them in this. The educational literature talks of 'constructing' knowledge and deep learning, whereby action and activity enforce this process of learning.[14] Sweet *et al.*[15] highlighted this very fact, with learners believing that they learn best when they are actively involved.

In this clinic setting 'implicit learning' takes place, where there is often no specific intention to learn and no awareness of learning at the time.[16] This is fundamental to the notion of clinical practice, which requires not only the application of explicit knowledge, but also those unarticulated aspects described as tacit knowledge.[17]

Therefore, chairside time allows exposure to a wide volume of conditions and patients. It allows trainees to be actively involved, performing procedures, discussing clinical cases with peers and clinical supervisors and formulating treatment plans.

Utilising this process by reflecting on the teaching is also an important part of the learning process[18] and is encouraged. In our clinics, teaching is based on the experiential learning cycle as described by Kolb.[19] In his work, experiential learning occurs where 'experienced events' are stored as memory and this is used to construct and develop knowledge into semantic memory. This is a valuable basis from which to structure teaching and we provide an example to highlight this process (Fig. 2).

In our study, the thoughts and reflections from our trainees showed how greatly they valued their experiences of teaching within the clinic setting. Their comments ranged from 'it is the best form of teaching' to 'I wish there was more time for this type of teaching', which highlights this. Therefore, it is not surprising that 14 trainees rated this as 'excellent'. Similarly, bedside teaching is equally as highly valued with 80% scoring this teaching as excellent or very good.

As increasing requirements for service provision can impact on the provision of teaching within the clinic setting, our unit has introduced dedicated clinic teaching programmes. As part of a formal teaching session, a specially designed educational clinic with pre-arranged patients allows for a more structured one to one session, with the benefit of developing clinical skills in a time protected environment. This allows the focus to be on trainee learning rather than the service provision.[20] This can be in the form of a structured teaching session with patients specifically invited to attend the clinic for educational and training purposes. Our experience shows that our trainees rate this as an excellent experience.

There is an increasing need to thread this dedicated and targeted education and training throughout the infrastructure of the health care system, and is seen as a major priority. Indeed, commissioners of NHS services will have a duty to ensure that providers of services pay high regard to education and training, which will benefit patients and trainees alike.

CONCLUSION

Clinical teaching is fundamental to the experience of doctors and dentists in training. As clinicians, we must ensure that we deliver quality in the education that we provide, and learning in the presence of the patient is an integral part of this. From this study it appears that trainees receive frequent teaching within the clinical setting and the hospital setting provides a sound educational basis for trainees to develop those core competencies as set out in the COPDEND curriculum. We feel that considerable efforts should continue to be concentrated on the education and training of dental core trainees with the overriding goal of providing excellence in patient care.

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