

# Micro-educational opportunities in outreach clinical dental education

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## IN BRIEF

- Describes the value of micro-educational opportunities in delivering innovative integrated team education at the University of Portsmouth Dental Academy.
- Discusses both intra- and inter-professional education.
- Describes the use of alternative dental environments to produce well-rounded, flexible and capable new dental professionals.

Outreach education at the University of Portsmouth Dental Academy is providing a valuable platform to offer students 'micro-educational opportunities'. Some of these are highly innovative experiences, which allow senior students across the dental team to take short periods of time away from the clinic to broaden their life experience. The maturity of senior students generates a significant added-value to their educational experiences with minimal loss of clinical time. Another important outcome, which echoes the Marmot review on Health Inequalities (2010), is the population of the City of Portsmouth, particularly the socially deprived, gain better access to oral health advice, prevention and treatment. Our experience suggests these opportunities enhance the undergraduate experience, equipping our new colleagues for a professional life in a changing and challenging environment.

## INTRODUCTION

The Portsmouth Dental Academy was established in September 2010 as a result of collaboration between the University of Portsmouth (U of P) and King's College London Dental Institute (KCLDI).<sup>1</sup> The Academy runs a degree programme in dental hygiene/therapy and a higher education (HE) certificate in dental nursing. Each year, these students are joined by 80 year-five dental students from KCLDI, on a ten-week outreach programme in primary care dentistry and, more importantly, 'integrated team based dental care'. The dental students attend on a residential one-in-four week-long rotation, working alongside the others members of the dental team, to provide holistic care to the local population, disadvantaged groups and the 'hard to reach'.

## MICRO-EDUCATIONAL OPPORTUNITIES

Final year students are a pleasure to work with in outreach as, by this stage, they

have good clinical skills, a good depth of knowledge and are developing a mature approach to oral health assessment and realistic sequential treatment planning for a wide variety of patients. They are approaching the end of their time in higher education and as such they are highly receptive to short educational experiences (micro-educational opportunities), where they can rapidly assimilate the pertinent factors in a situation, gaining a significant learning outcome from a short intervention. More importantly, due to their experience in dentistry, they are able to put these educational events into context in a way more junior students might find difficult. Over the last three years, the Dental Academy has been able to develop what we are terming 'micro-educational opportunities', from which the students can benefit. So far seven projects have been undertaken, including legal and social awareness topics as well as dental outreach in the community.

Naturally, the dental and hygiene/therapy students spend most of their time in the Dental Academy on clinics, providing NHS dentistry within the primary care setting, coming to terms with units of dental activity and key performance indicators that they will encounter in general practice. However, some of their time is devoted to community outreach, offering care to the hard to reach, socially isolated, disadvantaged groups. It

is opportune the findings of the Marmot Review<sup>2</sup> mirror the experiences of our students and give justification to the community programme. The review notes the health gradient is inversely linked to social and economic factors, which determine the conditions of daily life.<sup>2</sup> Most of these factors, childhood conditions, education, employment, income and environment, are positioned beyond the influence of the traditional health system. All healthcare professionals, whether oral or general, have an increasingly important role to play in tackling these inequalities, by working together to deliver a common message, since all non-communicable disease, whether oral or systemic, has common determinants.<sup>3</sup> These determinants are grounded in lifestyle, so all preventative healthcare is based on education and behaviour change. The socially disadvantaged minority experience the majority of non-communicable disease, yet do not seek medical help. Marmot suggests health professionals should abandon the traditional approach and move out to meet the target group on their home ground in the community. Additionally, to promote the desired behaviour change, healthcare workers should cascade knowledge through other professional groups, such as teachers, social workers and carers. The Dental Academy, with the support of the local authorities and the NHS commissioners, has

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adopted this approach, as have other dental schools, and sends students to a number of what have been termed, 'alternative clinical environments' (ACE). While the Dental Academy has a considerable number of students to provide a substantial workforce to support other agencies in the field, each individual student may spend only a short time in each setting, leading to the term 'micro-educational opportunity'.

**THE SETTINGS**

1. The Dental Academy, working with the local authority, selects the schools in Portsmouth and surrounding areas in Hampshire with the highest mean DMFT scores, which naturally lie in the areas of social deprivation. The dental and hygiene/therapy students work together in integrated teams to roll out the U of P's 'Brush-UP' scheme. Currently, 14 primary schools and 2 nurseries in Portsmouth and 2 nurseries in Gosport are enrolled in this supervised tooth brushing scheme, and the aim is to expand this number next year. In each school, the tooth brushing project starts with year 'R' and subsequently involves years one and two. Once Brush-UP is running successfully, the dental students screen year-one children and apply fluoride varnish (Fig. 1). Children requiring treatment are offered appointments at the Dental Academy or their own dentist. This programme satisfies a number of the GDC's learning outcomes<sup>4</sup> and the students definitely find schools to be an alternative and useful clinical learning environment (Fig. 2)

2. Oral health promotion utilising both Oral Cancer Awareness Month and Oral Health Awareness Month. These are great examples of events where young professionals in training can work together to provide an integrated approach to raise awareness, both with patients and the public in general, particularly in Sure-Start children's centres, schools, drug rehabilitation units, offender units and care homes

3. Isolated young people are a social group the local authority particularly wanted the Dental Academy to target following a social marketing survey of young people. This is undertaken



**Fig. 1** A final year dental student screening a year-one pupil in an alternative clinical environment



**Fig. 2** Students and dental nurses working in a school hall delivering a fluoride varnish programme

in a number of settings, such as offering dental screening, oral health advice and treatment to offenders at the local probation office, to clients of the young offenders team, as well as to residents in a residential drug rehabilitation unit. These are further examples of ACE

4. The Dental Academy actively recruits patients from deprived postcode areas. As part of this strategy, students campaign on the street in central Portsmouth to talk to passers-by and sign them up to become patients. Oral health advice is also given. This complies with the GDC requirement of teaching students about the wider

contribution their practice can make to dental and healthcare in the surrounding community<sup>4</sup>

5. Currently, service users in residential care homes are part of what Steele has termed the 'heavy metal generation'.<sup>5</sup> They have mouths requiring careful maintenance, without which there will be rapid deterioration. Once capable and able to look after their mouths, the elderly or those with dementia become incapable and rely on others to care for their mouths. These mouths are dental time bombs as has been recently discussed in the letters columns of the *British Dental*





**Fig. 3** The University of Portsmouth School of Law mock court room with roles being taken by students studying law and dentistry

- Journal*.<sup>6,7</sup> Staff in care homes commonly lack the skill to develop oral care plans or provide oral care. The Dental Academy presently works in five homes, sending in teams of students to educate care workers and to mentor them as they provide oral care for their residents, helping them brush teeth and clean and name dentures. This is not only a great learning opportunity for students, but an example of knowledge transfer
6. Individual students taking the lead and responsibility for individual or small group audit projects, rather than 'dental school type, whole year audits', across the teaching of integrated team care within the Academy. The results of these audits have been presented both at KCLDI student audit days and UPDA staff development days. This in itself offers the students a further opportunity to deliver presentations to their peers as well as more senior members of the dental team
  7. Students have been given the opportunity of interacting with the University of Portsmouth's Law School to understand the English legal system and in particular to participate in a civil trial, where the dental students had the chance to act as expert witnesses. The interaction with the Law School is highly innovative and certainly not part of their core curriculum, but allows inter-professional education. It is

an example of another opportunity that can be embraced when working in a fresh and teaching intensive environment, such as the University of Portsmouth. The University has a fully operational replica law court, which even has a recently renovated royal crest, which used to grace the Eastleigh County Magistrates Court. All students, joined by members of staff, have a tutorial from a senior lecturer in the Law School about the English legal system and the differences between civil and criminal cases. They later take part in a staged event (Fig. 3) in the court room to see what really happens in a court of law, as opposed to the popular 'TV image'. While law students, bewigged and gowned, acted the parts of barristers and solicitors and a retired judge presided over the proceedings, four dental students developed the expert witness reports, acting for, and against the claimant. This is an unusual experience for the students, which should help to prepare them if they should consider acting as an expert witness in court in the future.

## DISCUSSION

As KCLDI dental students attend the Dental Academy for one week in four and the hygiene therapy students are time tabled extensively, the experience of these education events may be considered a short intervention, namely a 'micro-educational opportunity'. Not all dental students participate in every event because they are additional to the main focus of gaining vital clinical skills in primary care at the chair side, which is so important for their transition to dental foundation year one training.<sup>8</sup> However, feedback from the inevitable reflection by these most able students and the discussion they will have with colleagues, both on the train to and from London, as well as over breakfast and evening meals in their halls of residence, allows time for these experiences both positive and negative to be dissected and disseminated.

We recognise many of the micro-education opportunities described above are self-explanatory and may not be innovative to those who work in primary care

settings, but they are to undergraduates. They also allow future members of our profession to experience alternative clinical environments, as well as participate in activities to which many practices across the country regularly contribute.

As Cabot and Radford stated in 1999,<sup>9</sup> today's graduates have different competencies to those of previous generations of dental graduates. Outreach teaching provides exciting clinical opportunities in primary care and for micro-educational opportunities, which otherwise might not exist. We believe experiences such as these enrich students' education and enhance teaching staffs' interaction with students. The students fully embrace the opportunities with enthusiasm and energy.

## CONCLUSION

These experiences certainly broadened our students' undergraduate education and enhance multi-professional care. In the course of these projects the students are offering the population of the City of Portsmouth and Hampshire a new dimension in access to dental care. We believe the development of such opportunities will create the future generations of dental professionals, with the diversity of skills to thrive in this ever-changing world.

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