

Liverpool's twenty-first century curriculum



UNIVERSITY
LIVERPOOL

DENTAL SCHOOL

BDJ Team Editor **Kate Quinlan** spoke to Dr Laura Gartshore and Joanne Bowles about the new, fully integrated curriculum for BDS Dental Surgery and BSc Dental Therapy students at the University of Liverpool in October 2020.

How long has the dental school been running at Liverpool?

Our new curriculum is called the Centennial Curriculum because it's 100 years since the School of Dentistry became part of the University. It's a well-established school from a BDS perspective.

From a dental hygiene or a dental therapy perspective, we're just finishing off the combined diploma in dental hygiene and dental therapy programme. The diploma started in 2004 and that's coming to an end now with the start of our new BSc Dental Therapy. Prior to that, there were separate training courses for dental hygienists and dental therapists, with dental therapy training starting in 1996 as a part time course and dental hygiene training starting in the 1970s (as far as we are aware).

The key difference is that until 2019, the BDS programme had been very separate from the dental hygiene or dental therapy programmes that were running. Now, everything is fully integrated for BDS Dental Surgery and BSc Dental Therapy students for the first three years of their learning. Within these first three years all students are learning within the scope of practice of a dental therapist; those on the BDS programme will continue to years 4 and 5 and will expand their scope accordingly.

Why did Liverpool decide to bring the BDS and BSc students together?

*Advancing Dental Care*¹ and the GDC's document *Preparing for practice*² encourage teamwork and have overarching learning outcomes in line with scope of practice.

The scope of practice for dental therapy and dentistry have a great deal of overlap. In terms of the design and administration of a curriculum, having those students learning together on a day-to-day basis and in the clinical environment is sensible, engaging and appropriate.

There is also, of course, the bigger picture: the changing public health demands, with a focus towards people who require special elements of care, such as the vulnerable, the elderly, and children. There's a great deal of scope for working together in those vulnerable communities and collaborating.

Dental therapists have been allowed to work in general practice since 2002. We're now in 2020, and still, some people have



Dr Laura Gartshore



Dr Laura Gartshore BDS (Hons), MFDS RCS(Ed), MPaed Dent RCS(Eng), FDS RCS(Eng), MFDT RCS(Ed),

FHEA, PhD is Undergraduate BDS Programme Director, Senior Lecturer & Honorary Consultant in Paediatric Dentistry at the School of Dentistry, Institute of Life Course and Medical Sciences, Faculty of Health & Life Sciences, University of Liverpool; Royal College of Surgeons Lady Estelle Wolfson Emerging Leader Fellow; and Chair of the Scientific Committee for the British Society of Paediatric Dentistry Conference 2021.

Joanne Bowles



Joanne Bowles Dip Dental Hygiene (London), Dip Dental Therapy (London),

MA in L&THE, SFHEA is BSc Dental Therapy Programme Director, BDS/BSc CLC Year 1 Lead and Clinical Lecturer – DH/DT and BDS/BSc Programmes, School of Dentistry, Institute of Life Course and Medical Sciences, Faculty of Health & Life Sciences, University of Liverpool.

limited awareness of what dental therapists do. Something needs to be done to promote the dental therapist's role more widely within the profession.

We foresee that in five years' time the BDS and BSc students who have been through the integrated curriculum at Liverpool will fully understand and respect each other's scope of practice and will work together. This new, collaborative way of learning enables that.

directly into year 2 on our graduate entry programme). In this year's intake, we've got 88 students, so our numbers are: 74 BDS and 14 BSc. For 2021 we predict that there will be 88 students and 16 of them will be BSc students.

Did the dental therapy students directly apply for this course or were some moved to this

'The scope of practice for dental therapy and dentistry have a great deal of overlap. Having those students learning together is sensible, engaging and appropriate.'

Was there any resistance to this idea from any parties?

I think that whenever anything is new, whenever you introduce change, there is always some resistance - that has to be expected. The key is understanding and helping people to manage that. We managed the staff's understanding of the overlapping scope of practice of dentists and dental therapists with school-wide 'inset days'. We built this programme as a school. We sat together as a team and we discussed the learning objectives of the classic curriculum, focussing on how we could include these, whilst enhancing student learning and experience in the new centennial curriculum. One of the benefits of bringing in any new curriculum is that you can make things more effective and can improve on pre-existing ways of doing things. There are areas of the classic curriculum that have a great deal of overlap between different areas of dentistry. Recognising this helped us to shift the balance and make the most of the teaching time available within the year. Locally from our NHS colleagues, and within the school, we've had a great deal of support. Everybody was on board in bringing those learning objectives together and designing the new curriculum.

How many students are in the first intake of students learning together?

In the first intake in 2019, there were 73 students: 57 BDS and 16 BSc (although in that year we also took 15 BDS students

programme after applying for dentistry?

There are two very distinct entry routes for the two programmes. Students apply through UCAS for the BSc programme or the BDS programme. There are different entry requirements and applicants know which pathway they are going to be on.

We also have the year zero foundation year. Students can apply for a year zero place that lasts for a year at a local college before entering either the BDS pathway, or the BSc pathway, following their original application. The foundation year has been established for a number of years for the BDS students but has now started for the dental therapy programme. There are up to five places available via the foundation year entry for each of the BDS and BSc application routes. The five BDS and five BSc students started at Carmel College this September and as long as they are successful and meet the requirements that they need in that year, they will start with us next September.

Are applications for the BSc Dental Therapy very competitive and do you receive many applications from dental nurses?

Applications are very competitive for the BSc and the BDS. For the first BSc intake in 2019 we had 200 applicants for 16 places. In 2020 we had 237 applicants for the same number of places. For the BDS programme in 2019 we had 800 applicants for 57 places, and in 2020 there were 944 applicants for 74 places.

We wondered if the introduction of a new



‘We foresee that in five years’ time the students who have been through the integrated curriculum will fully understand and respect each other’s scope of practice’

programme would impact applications – it has done so in a positive way! Yes, there are dental nurses applying, and there are dental nurses getting places, so it is definitely achievable for many different people from many different backgrounds.

It is very pleasing for us to see the high number of applications to the new curriculum. The reputation of the new programme in the public domain was obviously good, and improving.

We also thought that COVID might have had an impact on the number of applications, but we are on a par with last year, so there are no concerns there.

The deadline for entry for the BSc programme for 2021 is not till January so we won’t know final numbers for that until then.

How do the ages of the two groups of students vary? Are there more school leavers in the BDS programme?

Traditionally, the dental hygiene/dental

therapy diploma programme has had more mature students as a cohort. But within the BDS course, we have also always welcomed mature students who come from different pathways and career choices. The BDS programme has traditionally had a graduate entry pathway, and we’ve always had the foundation course option as well. In the BDS group there have usually been a number of doctors in each year who are seeking dual qualification. Furthermore, in the BDS programme it’s common for applicants to have previously studied programmes such as pharmacy, biomedical sciences, anatomy and also dental therapy.

If there’s a dental therapist out there at the moment that wants to do dentistry, they either have to do a five-year programme or they can go to certain institutions and do a four-year postgraduate course. So it’s either four or five years, whereas the way our curriculum has been designed, future Liverpool dental therapy graduates will be able to apply to skill escalate to do a further two years to complete a BDS.

We have just selected our student representatives for the coming year and one of the first year representatives is aged 24 – and so is the BDS fourth year president.

Do you think many of the dental therapy graduates will want to continue to complete the BDS?

I know there is a lot of talk about this, but I’m not sure how many will want to. Dental therapy seems like a fantastic career choice! We don’t know yet: we haven’t got there. We’ve recently surveyed the second year students [the first year of the new cohort] for their opinion regarding the challenges and benefits they foresee of doing so. Student voice is key in our school. I think that their feedback is going to be extremely interesting.

Of note, it would not just be a case of moving pathways: BSc Dental Therapy graduates would have to re-apply to do the additional two years, in a competitive entry system.

There has been some interest from students already, but it has made me realise that we also need to make them aware of what the postgraduate options are for dental therapists. That is true across the board – for BDS graduates as well. Career pathways in the dental profession don’t look the same as they used to. People move, they work in different places, they have different roles, and they develop evolving areas of interest.

What challenges have you encountered as programme directors beginning this new joint course?

[Jo] As dental hygiene and dental therapy was a diploma programme, very different to the BDS programme, staff didn’t really have the opportunity to work together. I was a tutor on the diploma programme and very rarely mixed with staff on the BDS programme. We might have been on clinic at the same time and we’d have a passing conversation, but we didn’t work collaboratively. So a lot of cultural changes have had to happen, and we’ve had away days and training days, and I’ve spoken about dental therapy to all staff within the school. We had to make sure that everybody has the same information and knows the same things, as a way to change people’s thoughts and thinking. As we said earlier, when you make changes, it can be difficult for people to adjust. I think we’re constantly working to remind people of how things are different. But overall, I don’t think there have been that many challenges as programme directors.

We spoke to people in other schools who had recently integrated their programmes. We had conversations with them about challenges that they had, to try and pre-empt any challenges we might be presented with, and address things before they happened. This was extremely beneficial.

[Laura] Traditionally, BDS programmes are very much structured around specialty areas. For example, as a paediatric dentist, I teach children's dentistry. There's traditionally little holistic overlap and one of the things that we've been able to do - which is a big challenge in revising any curriculum - is unpick that structure. For example, maybe the paediatric dentists have some special areas of expertise with child behaviour management, but actually, a lot of what a child needs in terms of preventive care, is taught holistically across the programme.

I'd say that everybody is working better together now. Scope of practice has been important, practically, as well. The example that springs to mind is that we have a medical emergencies programme that runs in every year of the programme, so we've had to look at things like prescription-only emergency medicines. I think that's been very helpful, because it increases everybody's awareness of scope of practice, and, as they say, when you teach you learn. So if students need to know that, the staff need to know that too. We have the school staff on board with the new curriculum, and we also need to ensure that external speakers are fully informed and understand who their audience is, so that everyone feels welcome and included. Also, we don't distinguish students as BDS or BSc. It is a collaborative learning course. So, the entire first year cohort is referred to as CLC1 (collaborative learning core), before progressing to CLC2 and CLC3. The final two years of the BDS programme will be identified as BDS4 and BDS5. We avoid any separation of the groups.

Do you think BDS and BSc students socialise together too?

Yes, they are making really good friendships and living in mixed BSc-BDS households. In February we were at the annual ball (before lockdown) and most of the first years were there, and that's something that hasn't happened before. They're more part of the school now from year 1.

At the end of the day, one of the core aims of the joint curriculum is that everybody works together without ever

having known a distinction, so it's great that students are socialising together and forming friendships across the profession.

How has Liverpool met the challenges of 2020 and the pandemic?

The one positive about lockdown was its timing with the Easter holiday. We had a little bit of leeway during the student break in order to get our programmes online. We reacted very quickly, and we had University and GDC approval for commencing the way forward within a matter of weeks. We moved online and like everyone else on the planet, we had lots of new platforms to get used to.

Lectures, seminars, and symposia are online but as of September, we have been able to re-introduce the students back to the school to do simulated learning. We have also commenced live patient activity that is currently limited to the fifth year BDS students. We hope to change that soon depending on how the pandemic progresses in the near future.

We have also created a wealth of new resources and have been given access by the University to other, new online resources. We have popular virtual learning environments, and the staff have been very innovative. We've had case-based discussions, podcasts, simulated suturing and things have been developed which we didn't have before. We have also kept up our one-to-one supervisory and support meetings using Teams, so we touch base with students quite a lot.

We gathered student feedback across the full five years in July with respect to how they felt online teaching was going. The overwhelming majority of students wished to continue online teaching, which was hugely supportive of the staff's efforts across the board.

So that was really nice to see. The students enjoyed the flexibility of the self-directed learning, especially those who unfortunately during lockdown had to pick up extra caring responsibilities or work to support their families. Quite a few students were also redeployed into various areas, particularly those who were already qualified as doctors or pharmacists.

We're trying to do as much as we can in a 'new normal' way. We are absolutely doing our best for the students to give them the best experience possible.

We're very fortunate in that we have very good relations with our graduates who also

keep in touch with us and with our students as they help them prepare to graduate to this new world.

Do you think that you'll be recommending the integrated way of learning to other institutions?

I think the important point to remember is that there has been integration between programmes for many years. All we are doing differently is full integration of teaching and learning for the first three years.

[Laura] I would encourage other schools to consider this. For me, it makes sense to fully integrate. If you're going to have collaborative, multidisciplinary future working, then full integration from the outset is the wise way to go. Our roles as programme directors are perhaps best described as ensuring that programmes evidence meeting the designed learning objectives in a quality assured way. We ensure that what is planned is actually delivered. We're very lucky to work together. It is certainly not a job for one person, and we have a very wise Dean who brought us together on that. I would recommend that schools considering this come together to discuss their objectives, and to make sure that every individual knows that the area that they teach, and which is important to them, will be included in the new curriculum. I think that is key - that everybody has a role. Each component of our new curriculum has a staff lead and deputy staff involved in helping them to deliver. So, there's no member of staff in the building that isn't responsible for some part, and that works well. We have a strong relationship with the local NHS team and that has been imperative. I think we're very lucky in that respect. That is the key to all of this: teamwork, the whole way, from staff to students.

References

1. Health Education England. Advancing Dental Care: Education and Training Review. Final report. April 2018. Available at: https://www.hee.nhs.uk/sites/default/files/documents/advancing_dental_care_final.pdf (accessed November 2020).
2. General Dental Council. *Preparing for practice: dental team learning outcomes for registration* (2015 revised edition). 2015. Available at: [https://www.gdc-uk.org/docs/default-source/quality-assurance/preparing-for-practice-\(revised-2015\).pdf](https://www.gdc-uk.org/docs/default-source/quality-assurance/preparing-for-practice-(revised-2015).pdf) (accessed 8 November 2020).

<https://doi.org/10.1038/s41407-020-0472-0>