

Dental research: 'you've got to give it a go'



Dental hygienist **Susan Bissett** is a PhD student at Newcastle University and Team Lead for the Dental Clinical Research Facility. In 2014 Susan was the first ever dental hygienist to be awarded a four-year Doctoral Research Fellowship by the National Institute of Health Research (UK). Susan is Mum to two teenagers.

Interview by Kate Quinlan

Did you plan a career in dentistry when you were still at school?

It wasn't as clear in my mind as that but I was always interested in healthcare. When I was about 19 I saw an advert for a dental nurse in a local dental practice and I thought 'oh that would be such a cool thing to do'. The principal dentist was a really excellent teacher; he did sessions working with the undergraduate dental students during his week as well so he was incredibly patient. I was instantly fascinated by it all. In the first week that I worked there I remember assisting with an apicectomy. I'd never seen anything like it before and it just blew my mind! I absolutely loved it.

Did you start your dental nursing qualification straight away?

Yes. It was a permanent job and within weeks of starting at the dental practice I'd enrolled on the dental nursing course and on the oral health educator course at night classes. I can remember I had to get a special dispensation to be able to do the OHE course because normally

they recommend just doing one of the courses at a time. After a year I'd qualified as a dental nurse and an oral health educator.

Did you continue working as a dental nurse for a while?

I stayed at that practice for a little while after I'd qualified but I instantly wanted to progress further and found out about the dental hygiene programme that was running here at the dental hospital. I applied for that and went for an interview. My progression onto dental hygiene was quite swift. I wanted to be more hands-on and loved the fact that people would be coming to see me as opposed to me taking the patient through to see someone else and then assisting.

There is very little opportunity for career progression for dental nurses and dental hygienists. Going on to being a hygienist from being a dental nurse was something you could do when I qualified, as long as you had your nursing qualification, five GCSEs and passed the interview. At the time becoming a hygienist was

through a one-year diploma programme. It was very intensive and you couldn't really do any paid part time work; you sacrificed everything to do the course and catch up with your homework and revision all weekend. It was full time, 9-5 with minimal holidays.

I was living with my parents at the time - I finished my dental nursing job, sold my car to pay for the books and everything and didn't do anything but study for a whole year! But it was definitely worth it.

Did you quickly find employment after qualifying as a dental hygienist?

When I qualified I worked three jobs - it's very common for hygienists and therapists to work a day here, a day there at different practices. I had three jobs for the majority of the time I was working in practice and in hospital. It was fantastic to be qualified but as with a lot of courses the learning doesn't stop when you get your qualification, it goes on - learning how to adapt to shorter appointments and working unassisted - because you don't often get a dental

nurse to help you (in fact that's quite rare) - learning how to manage your salary as I was self-employed, and so on. When I look back it was surprisingly tough for the first year or so and a bit of a shock to the system.

An accountant did come and speak to us at the end of the diploma course and I was a student member of the British Dental Hygienists' Association, as it was at the time, and they gave an awful lot of support in being newly qualified and coping with everything.

I very soon started working as a tutor hygienist as well, teaching on the diploma programme that I had been a student on.

I worked full time until I had my first child and then part time after that until I got involved in research. I took very little maternity leave - I was very fortunate that I was fairly healthy throughout both of my pregnancies and was able to keep working until a couple of weeks before my due date. I was then back to work within three months. This was for various different reasons but it was a gradual return to work. Whenever you've had time off work, to return is quite an anxious thing. For me, it was less anxious than I have seen with other people, maybe because I wasn't away too long. You're very much back in the swing of things very quickly but obviously there is also the downside when you have to leave your baby crying and rush off to work. Your life becomes a constant juggling situation - a normal story for anyone who chooses to have a family and work. You just deal with one day at a time. Even when your kids grow up and become teenagers they still seem to need an awful lot of support and care. It's the same pressure but just different problems.

When did you first start to develop an interest in undertaking research?

Around 2007 I heard about a research team who were wanting another member. It was called the Tooth Fairy Project and they wanted donations of either exfoliated or extracted primary dentition. They wanted to analyse the donations for lead content [derived from vegetables as a result of lead content in soil and potentially from meat as well]. So I was enrolled on to that project to go out to schools and promote it and encourage kids to get involved. It was fantastic being part of the team. Having worked in three different places during the week, you're this person who turns up and then goes away, so suddenly to be an important member of a small team felt really good. I'm not saying that I wasn't an important member of a team in the practices where I worked, but in the research team you're all working to a common goal and want the project to be successful. I loved the meetings

and going out to the schools and doing talks to children. It was a real opportunity.

Unfortunately they didn't get enough teeth. We thought the parents might give them to us but there seems to be a phenomenon out there of people wanting to keep their children's teeth as little mementoes. When you're designing a project you can't always predict how recruitment will work out.

Did this lead to your involvement in further research projects?

I got wind of the fact that a dental hygienist was leaving another project which was to do with diabetes and periodontal disease and there was a vacancy. I was instantly attracted to that but it was a temporary contract and full time so it meant giving up my other jobs to work for a year. It's something that you've got to think seriously about when you've got a mortgage and bills to pay. It really excited me though and I went for the interview and got the job.

Again I felt a great connection with the research team members and it was about getting the best outcomes for patients and the best outcomes for the study. Everybody's working together to make that happen. This combined effort is something I really enjoy being involved in.

you could be in practice full time and do the course. But for me I went to the face-to-face teaching days, about eight over the year, and the rest of the time you're doing self-directed learning and assignments. I completed my Masters in Clinical Research in August 2012 with Distinction.

Were there other DCPs on the clinical research programme?

No, it was very heavily medical - lots and lots of doctors. The year before there had been a huge nurse intake and then suddenly lots of clinical fellows who were wanting to do a research component to their fellowship enrolled on this course. Yes, it was a bit intimidating being around lots of doctors at that point. The course is very clever in that at the end of the first year, your last assignment is to design a research proposal, something you could carry out in your workplace, so if you continue to year 2 and 3 the curriculum takes you through the processes of getting all of the research funding, governance and approval sorted out for your project and then carrying out your project, which becomes your Master's thesis. Once I had got my proposal I really wanted to carry it out.

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That was in 2009 and my contract kept getting rolled over. My job has progressed so now I'm Team Lead for Oral and Dental Research in Newcastle upon Tyne Hospital Foundation Trust. It's a managerial role, managing our research facility, the staff who work in it and liaising with other researchers. We didn't always have a research facility here; that's something that happened during my time here. It opened in 2011.

I got on to the clinical research programme the second year that it had been running. It was a three year programme and you could exit after year one with a certificate in clinical research, year two with a diploma or year three with a Masters ... and I only ever thought I would do year one. It's a really clever course because there's an e-learning route - so

Did this lead you to start your PhD?

Yes, my PhD has followed on from my Master's degree and it was an original idea of my own. It's all to do with the fact that if someone has diabetes and doesn't really go to the dentist or other dental professional then you're very unlikely to be told about your increased susceptibility to periodontitis. That's because medical teams don't know about the evidence linking diabetes and periodontal disease, even though it has been there for over 20 years. Medical people don't read dental journals and it has all been dental researchers working in this area. Basically my PhD is about trying to get medical teams to talk to their patients about gum disease and how it can affect your glycaemic control and of course diabetes is all about trying to be stable and keep your blood sugar at a

certain level. So if there's a massive amount of inflammation going on in your mouth there's a knock-on effect to your blood glucose levels. Patients don't know about this, even though it can be so easily treated, with results within weeks. The benefits are really significant.

I needed funding to do a PhD. I ended up applying for a National Institute of Health Research (NIHR) doctoral fellowship. The ideal programme to go on is a clinical academic training programme, but I wasn't eligible as a dental hygienist. They were strongly advertised to allied health professionals such as nurses and midwives but originally I was told I'm not allied to medicine so I can't apply. It has changed now, DCPs can apply, but this is why I chose the doctoral fellowship route.

I was intimidated by the thought of my application being alongside all the high-flying doctors and dentists. But I was reassured that nurses and occupational therapists went for these fellowships as well, and being the only dental hygienist to apply may have worked in my favour. You're very much judged by you as a person and what your project is about and whether you can be a champion and encourage people from the same background to come forward. It's a privilege to be able to be in that position.

How did it feel when you were given the fellowship?

It was like a lottery win, a life-changing moment. Doing a PhD was like something that 'other people' do so to get that opportunity was really something. I think it's about seeing and recognising an opportunity and not wanting to let it pass you by; to go for it, even if it's scary and you don't think you stand a chance - you've got to give it a go.

Can you summarise an average week in your life at the moment?

My PhD is part time. My working week is supposed to be 25% team lead and 75% PhD. However, that is very difficult to restrict yourself to so there are some weeks when I really struggle to get PhD work done when there are other demands. As we are a really small team I spend a lot of time with researchers, guiding them through the governance surrounding research. Getting all their approvals through is hard work as it's so highly governed. There are reasons why it's like that but the system keeps changing so everyone is always in the dark and I can guide them to a certain extent and help them. I also manage the facility staff so of course there are always things coming up with staff and recruitment and training etc.

For my PhD, I'm trying to write thesis

chapters. There are three stages to it and I've just completed phase one of three. I'm working on presentations for various people, writing and preparing for the next phase.

There is always lots going on and never enough hours in the day. In a way you've just got to say that's what I've got done today and I'll do more tomorrow. Working in the evening and at weekends is hard because home is super busy too.

How can other DCPs get involved in research?

Getting more DCPs involved in research is something I feel really passionate about. If by example I can in any way influence people, then I'm really pleased to be able to help in that way. Research is rewarding to be involved in and very satisfying. To be doing your own project is amazing.

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Getting started is very tricky. There are no Academic Clinical Fellowship training positions and you need dedicated time for research. You cannot do research only at weekends or only in evenings. Also if you're based in a university, as I am, you've got access to support and people who can help. You can't do research on your own. You need supervisors and experts in the subject area; you need mentors and to put together an idea and speak to all sorts of people in the areas where you might be recruiting people to answer surveys, or patients in a department, for example ... it's like the layers of an onion: you are in the centre, but there are many people involved, some more so than others, but all essential.

If you're a dental hygienist in a practice with appointments back to back and barely a break to go to the toilet, it is very difficult to get involved in research. There are many challenges, but people do need to get involved and make this happen. I hope a programme might be developed that might encourage DCPs and people working in practices to get involved, making it accessible for them to do so. I don't know the answer and I wish I did. We need to keep working at it.

What are your plans for the future?

I imagine that I would like to continue with

my PhD project. I'd like to do some more feasibility and pilot work or do a randomised controlled trial with that project, so it's about where I would get the funding to continue. The application for my NIHR doctoral fellowship took me a year. Within the next year I've got to start thinking of doing another application form for more funding - that's how research works and it's competitive and I may not get the funding.

I hope that there will always be a role for me here being a team lead. My wish list is to stay working in research, get my PhD which will be amazing, continue to work in research, help other people with their projects, and maybe help support and continue the battle to get more DCPs involved in research.

What do you like to do outside work?

Outside of work is house work! You have your week schedule and your weekend schedule and I've never managed to do everything I wanted to by Monday morning.

My favourite things to do are walk my dog out in the country, being around nature, and spending time with the kids, catching up on our favourite programmes, cuddled up on the sofa ... oh and going to charity/vintage shops - I love getting a bargain!

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