

CAREER-ENHANCING BECOMING A RESEARCH DENTAL HYGIENIST

For 20 years my career revolved around the familiar rhythm of NHS primary care. However, the daily grind of patient appointments, while rewarding in its own way, sometimes left me feeling like I was treading water. The constant pressure to meet targets, the limitations of resources, and the gnawing feeling that I could be doing more for my patients occasionally led to a sense of stagnation.

A move to a clinical tutor role at the University of Sheffield in 2021 proved to be the catalyst for change when the academic environment sparked a curiosity. It unexpectedly exposed me to the world of research, an area I had never previously considered. When the chance arose to work as a clinical research hygienist on the ENHANCE-D trial, I jumped at it! My first research trial was a journey into the unknown that would challenge my preconceptions and ignite a passion for research.

Enhance-D

ENHANCE-D is a large NIHR-funded randomised controlled trial evaluating the effectiveness of different smoking cessation support packages delivered by dental professionals.^{1,2} The trial's focus on smoking cessation resonated with me. I had seen first-hand the devastating impact of smoking on oral health and general well-being, and the potential for dental professionals to play a crucial role in helping patients quit.

What makes ENHANCE-D particularly exciting is that dental care professionals can be principal investigators. While this is not my current role, this opportunity is a significant step forward for the profession and recognises the value of dental care professionals' perspectives, experiences, knowledge and skills in research.

Training and calibration

My first taste of research was a training session at Newcastle Dental School to calibrate our use of the various indices in the participant periodontal assessments. This was not just 'brushing up' on

familiar techniques; it was about ensuring consistency and accuracy across all those involved in data collection. We practised: assessing clinical oral dryness; marginal gingival index; plaque index; recession; periodontal probing depths; bleeding on probing; and clinical attachment loss. We also learned how to collect biological samples, including subgingival plaque and mucosal cells using a buccal brush. It underscored the importance of standardised protocols in research, ensuring that the data collected are reliable and valid.

The training also highlighted the ethical considerations in research. We discussed the importance of consent, participant confidentiality, and data protection; a reminder that while research focuses on collecting data, it must also respect the rights of participants.



Out in the field

Once training was complete, our task was to visit dental practices across Yorkshire and the Humber, and conduct baseline and six-month follow-up assessments. The practices were responsible for delivering the smoking cessation interventions and providing any necessary periodontal treatment.

The initial phase involved contacting participating practices, introducing ourselves, explaining the study protocol, and scheduling appointments for assessments. This required a significant amount of organisation and communication. We had to coordinate our schedules with the practices, ensure that we had all the necessary equipment and materials, and maintain meticulous records of our assessment.

Visiting the different dental practices was eye-opening. Each had its own unique culture and workflow. Some were incredibly organised and efficient when it came to incorporating research into their day-to-day work which helped facilitate participant recruitment to the trial, others found it a struggle. Integrating research trials within primary care dental practices brings a range of obstacles. Specifically, the time demands associated with participant recruitment, the rigorous process of gaining informed consent, and subsequent data collection pose significant challenges to the allocation of practice resources and, additionally, the loss of valuable surgery time. Furthermore, the diversity of patient populations within practices introduces variability in participant willingness, which can complicate recruitment efforts. The length of data collection appointments impact practice workflow and patient availability and requires meticulous planning and resource management. Although participating in research might appear to be a challenging business decision, ENHANCE-D addressed this by offering financial support to practices, compensating to some extent for lost clinical time and resources.

Recruiting participants for the trial presented its own challenges. The criteria stipulated those recruited needed to have at least Stage II Grade B periodontitis who were also smokers. Identifying and recruiting such patients required close collaboration with the dental practices. Once participants were identified by the practice, we arranged sessions to attend to undertake the assessments for data collection.

Conducting the assessments was the most hands-on part of the research. It was a chance to apply the skills I had learned in training and to interact directly with participants. As the practices had recruited them to the trial, they ensured all the necessary explanations and paperwork were completed, and consent was obtained. However, most patients had never taken part in research before, so we were often asked questions which helped us engage with participants, build rapport and show the value of research more generally. Given its methodical nature and need for accuracy, data collection was time-consuming. Having the time to talk, making sure patients were comfortable, and getting to know them was key.

One of the most rewarding aspects of the research was the opportunity to network with other dental professionals.

Sharing experiences and discussing different approaches to patient care and recruitment helped to expand my knowledge.

The research also exposed me to the challenges of conducting clinical trials. Recruiting participants, managing data, and coordinating with multiple practices required a significant amount of effort and attention to detail. I gained a newfound appreciation for the work that goes into conducting clinical research and the importance of collaboration and teamwork.

Reflections

My first experience as a research hygienist has been transformative. It has broadened my horizons and opened up new career possibilities. I have learned so much about research methodology, ethical considerations, and the importance of evidence-based practice. I have also discovered a new appreciation for the role that DH&DTs can play in advancing dental research. For me, it has been a newfound freedom.

The world of research may have seemed daunting at first, but I am now convinced that it is an area where DH&DTs can make a significant contribution. We have the clinical skills, patient interaction experience, and the dedication to improve oral health that are essential for successful research. In addition, we can offer different perspectives and ideas to the research agenda. I encourage other hygienists and therapists to explore the world of research. It is a challenging but ultimately rewarding experience that can enrich your career and make a real difference in the lives of patients. Those interested in opportunities to get more involved in oral health research may wish to join the mailing list for the new NIHR-supported incubator for oral health research which is led from University of Sheffield and Newcastle. The incubator aims to provide support to strengthen oral health research across the UK and to ensure its application in policy and practice, ultimately improving oral health outcomes.³ I am excited to see where this new path will lead and would recommend it to others.

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