DENTAL HEALTH

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DENTAL HEALTH

The mission of BSDHT is to represent the interests of members and to provide a consultative body for public and private organisations on all matters relating to dental hygiene and therapy. We aim to work with other professional and regulatory groups to provide the highest level of information to our members as well as to the general public. The Society seeks to increase the range of benefits offered to members and to support this with a clear business and financial strategy. The Society will continue to work to increase membership for the benefit of the profession.

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EDITORIAL

Soft Touch?

"I wake from restless sleep absolutely panic stricken"… a quote from notes written by headteacher Ruth Perry after an OFSTED inspection that was later deemed by a senior coroner to have contributed to her suicide in January 2023. Her school was faced with being downgraded from 'outstanding', the grade it had achieved throughout her term as head, to 'inadequate' because of a perceived failure in safeguarding, even though a subsequent report found that no child had ever been placed at risk.

This tragedy, brought to mind situations where our own regulator, the General Dental Council, has caused immense pain and suffering to registrants through interminable, labyrinthine processes which are not always, despite the GDC's stated mantra, in the interests of patients.

One particularly spectacular, and costly, failure by the GDC last year was unquestionably about protection of the system rather than the patients involved. I am sure you are all aware of the case Williams vs the GDC. In essence, the dentist had provided the patient with better crowns than she was contractually obliged to provide and had charged a top-up fee rather than a full private fee. One could argue that the patients involved were being extremely well cared for. The semantics are around whether the patient was actually entitled to have white crowns in the first place, but NHS England has allowed a myth to perpetuate that all white restorations on posterior teeth are principally aesthetic in nature thus fostering 'mixing' of treatment ever since the current NHS contract was inaugurated. The profession awaits revised contractual guidance, but it has become clear that the GDC sought to have NHS-England join its case in court.

The GDC apparently does not keep statistics on how many registrants suffer from serious mental illness during the course of investigations into fitness to practice. They do not even record those cases which end prematurely, on occasion, in the suicide of the respondent. I'm sure we all know of cases where registrants have been put through a living hell after being accused of a variety of misdemeanours not always directly related to their ability to care competently and diligently for patients.

The delays involved in pursuing cases through the stages of investigation in the pursuit of registrants must call into question the 'fitness to practice' of our own regulator. If it were not for the dogged determination of some registrants submitting freedom of information requests, we would be entirely unaware of the internal machinations of our regulator. The days when professional members of the GDC were elected to look after the interests of our professions are long gone: elected professional members are there to guide the GDC in its role in protecting the interests of patients.

Which brings me to the catalyst of this editorial. The collapse, and entering into liquidation, of Smile Direct Club has left thousands of patients in limbo; patients mid-way through a course of treatment, patients who have paid for but not commenced treatment and patients who are contractually obliged to continue to pay for a service that can never be completed. In short, a disaster for patients undergoing dental care. How can anyone not believe that this was (and still should be) within the domain of the GDC? And yet how many cases have we seen come before the regulator?

Has the GDC pursued the owners and directors of this company practising dentistry in the UK for numerous failures? Failures that the same regulator might list in the catalogue of misdemeanours thrown at an individual registrant: failures of diagnosis; of comprehensive examination; of note keeping; of failure to specify lead-clinicians; failures around the website in terms of listing registrants and their qualifications and registrations. The list is long and damning and whilst it may not be true on every count for every single case that Smile Direct undertook there is an enormous case to answer as far as the patients are concerned. Where is the GDC in all of this?

At the time of writing this, we are seven days in. Is there any guidance on the website of this bastion of patient protection for those thousands of patients left in the lurch? Any reassurance that the GDC will be pursuing their interests? I think you can probably guess the answers. The concerns of the wider profession over this have been dismissed as self-interest by a regulator hell-bent and blinkered in its persecution of our profession and our registrants. The wider profession has been clamouring for action for some considerable time and nothing has been done.

It's so much easier to persecute a registrant for an inebriated indiscretion on social media, where arguably the greatest harm is to the perpetrator's personal reputation, than to actually, protect patients.

Heather Lewis

Heather Lewis

FROM THE PRESIDENT

BY MIRANDA STEEPLES

Welcome to 2024! Although it is the start of the year, BSDHT is already planning for the end of the year and OHC2024 which will be in Harrogate on 22 and 23 November.

OHC 2023

Last November, OHC 2023 was held in Bournemouth and was a resounding success! The AGM provided the opportunity for much lively debate and discussion. We also welcomed our new Executive and Council team members and bid farewell to others. In the first instance, I would like to thank Sarah Murray for her dedication to the role of acting honorary secretary; Sarah was a great support and I am grateful for all she has contributed to BSDHT. In her place, I'd like to welcome Juliette Reeves as the new honorary secretary. Juliette is no stranger to BSDHT, having previously been an elected council member to the Executive and a longstanding participant in the Education Group.

Also new in post is Kirsty Chappell, who is our most recently elected council member, and we say farewell and thank you to former ECMs Leon Bassi and Claire McCarthy, with additional thanks to Claire for her contributions to the Executive Team. The regional groups have had some new faces step up and take on the regional group representative role, and you can see who your new representative is on the back pages of *Dental Health*. Finally, it gives me great pleasure to introduce you to our new honorary vice president, Professor Iain Chappell, and to thank Simon Hearnshaw for his support over the last three years.

At the OHC2023 350 delegates enjoyed 27 speaker sessions and workshops and 32 trade partners.

I was thrilled to present a number of awards:

- Poster Competition: Vaida Kaunaite (1st), Laura McClune (2nd), Clare Haylett (3rd) (prizes kindly sponsored by Colgate)
- Student of the Year: Jade Francis (prize kindly sponsored by Oralieve)
- Member of the Year: Sakina Syed (this inaugural prize was kindly sponsored by KIN Dental)

Finally, it was an absolute honour and delight to present the Dr Leatherman award to a very to worthy recipient, Elaine Tilling, who gave a fantastic speech about her career and involvement with BSDHT.

It was lovely to welcome representatives from the Irish Dental Hygienists' Association (IDHA) to this conference: president Yvonne Howell and secretary Olivia McGowan. Earlier last year, IDHA were kind enough to invite Simone Ruzario (honorary treasurer) and I to their annual conference in Portlaoise, Ireland, where we all enjoyed a great conference. Possibly the most extraordinary thing for me was that they welcomed about half of their membership to their event! As CPD is not a mandatory requirement in Ireland, these members registered to join their friends not because they have to but because they wanted to, and that was beautiful to me. The theme of friendship and shared experiences was strong at our OHC this year, for kindness, cohesion, and collaboration.

One event I was sadly unable to attend, was the Dental Industry Awards ceremony where the 'Refresh and Refine' educational opportunities was a finalist in the category for the 'Best Postgraduate Short Course'. This event was held on the night before the opening of our conference, and so I had to acknowledge that I cannot be everywhere and do everything, even though I want to! However, I was able to attend GDC Dental Leadership Network event with Rhiannon Jones, and also see BSDHT member, Tracey

Kinsella be awarded a prize at the Robin Davis DCP Research Awards event.

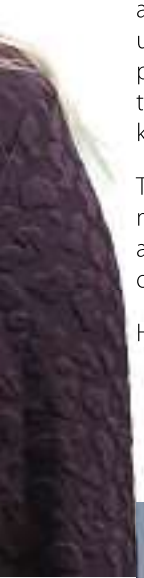
Towards the end of 2023…

Over the last few months, I have attended many events representing BSDHT: I have been a panellist for the Westminster Health Forum online, where my topic was to discuss 'education, training, and sustainability of the dental work force'; Honorary Vice President, Dr Debbie Reed and I jointly presented at Thames Valley and Wessex area training day hosted by the new deputy chief dental officer (England), Dr Shabir Shivji. In addition, I have written articles for the *Dentistry* and *Smile* magazines, for *BDJ Teams,* and regularly contributed to the *BDJ Perspectives* section of the *British Dental Journal.* I was also interviewed on BBC television news promoting Mouth Cancer Action Month. Everything that I do is to raise our profile and increase awareness of us as professionals and as an organisation.

Within this, conversations continue about the exemptions legislation, which is progressing slowly. As soon as there is anything definite to tell you, we will share it. We have regular meetings with the General Dental Council and have asked around the progress further to the consultation on the Scope of Practice. Due to an absence of consensus, there will be additional stakeholder consultations and discussions. However, there is unlikely to be an update on this until, potentially, Summer 2024. Again, once this is released you will be the first to know.

This first year has gone by in a flash of meetings, discussions and adventures and I cannot wait to see what the rest of this year brings.

Happy New Year to you all!



READERS FORUM

Christina Evan, former Editor of Dental Health

It is with great sadness that we announce the death of Christina Evan (nee King) on 6 September 2023, aged 98. Christina was the Editor of the first issue of our journal *Dental Health* in 1962 and remained as Editor until 1972. We send our deepest sympathy to Christina's family.

Patricia Macpherson
Secretary, BSDHT Publications Team

Working to a full scope of practice

I read with interest the paper in the last issue of *Dental Health* (vol 62 no 6): 'Working to a full scope of practice in general dental practice: a report presenting the results of a BSDHT member survey'.

I feel it is imperative that ALL skills taught are utilised on a regular basis. It was interesting to note the comments, under 'discussion', made by a majority of dental hygienists and therapists that they would like to utilise their full scope of practice. It is probably the case that they are working alongside dentists who were taught by dentists who did not have the full knowledge of using dental therapists and indeed had never done so themselves.

Dental therapists need to use all their communication skills to speak with dentists about their full range of capabilities. Dentist colleagues need to be taught by dental therapists about the full scope and range of their skills with the request that they refer suitable patients to them. In other words… be 'bolshie'!

Kind regards to all members of BSDHT

Caroline Clitter
BSDHT Past President 2000-2002

BSDHT

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2023 Were you with us... in the boat?

Tracey with members of BSDHT

RESEARCH AWARDS

The Robin Davies DCP Research Awards 2023 were held on Wednesday 22 November, in London. A celebratory lunch was hosted by Colgate, in collaboration with the Oral and Dental Research Trust.

BSDHT's congratulations go to Tracey Kinsella, a worthy recipient of an award of £5000 to support her work.

She hopes to publish the results of her research next year in the *Annual Clinical Journal of Dental Health* in collaboration with the *International Journal of Dental Hygiene*.

Here Tracey tells us a little more about her research interests.

As a dental hygienist, I am part of a multi-disciplinary team on a critical care unit at the University Hospital of Wales.

Tracey with with Emma Van Eyssen, Colgate Scientific Affairs Manager, UK, Prof. Mike Lewis and Prof. Sir Nairn Wilson

Professor Mike Lewis, University Dental Hospital Cardiff, initiated the collaboration with the medical team, grouping together dental team professionals with the relevant disciplines in critical care.

The project I am engaged with is entitled: *To improve the quality of oral care during mechanical ventilation*. My supervisor is Dr Matt Wise, Associate Medical Director for Research and Development University Hospital of Wales. He is a consultant in adult critical care.

Since qualifying in 1992, I have worked in various hospital environments alongside my clinical role in general practice. This part time work has offered worthwhile opportunities for me to become involved with research, audit and quality improvement.

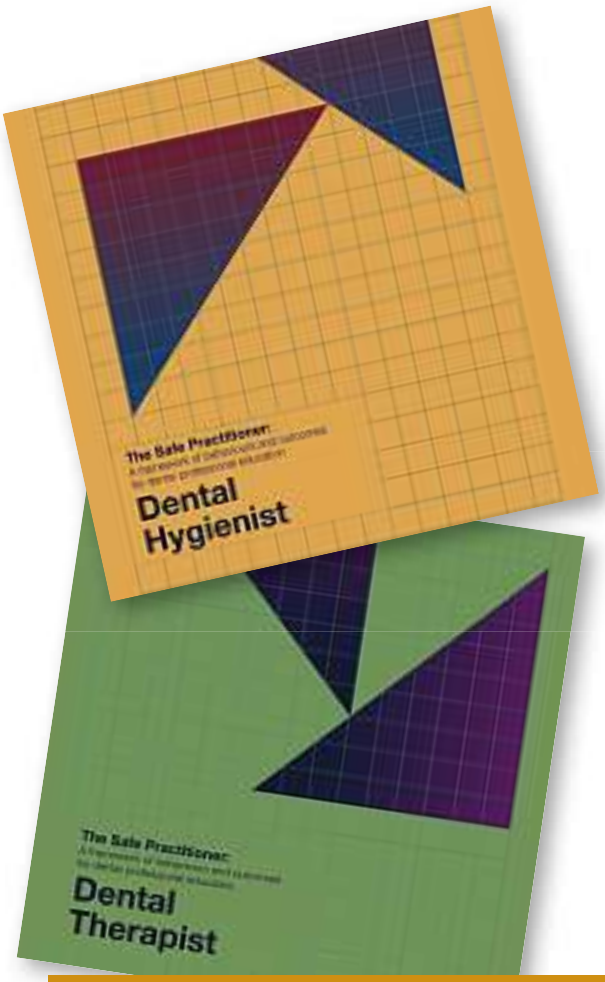
I was attracted to apply for the Robin Davies Award because the EFP Manifesto recommends that hospital staff within acute care environments should be trained to reduce the oral microbial load in ventilated patients. There is a microbial shift during critical illness. Respiratory pathogens arising from oral and periodontal biofilm reservoirs may be aspirated and translocate to the lower airways, leading to ventilator-associated pneumonia (VAP).

The award will support us in our work to test the efficiency of simulation training with nursing staff; it will help with resources and the costs of training the nurses. Effective oral care is an essential element in the prevention of VAP.

Currently, each week I spend seven hours on the critical care unit as I work to complete the project, which is being managed by Audit Management and Tracking leading to Quality Improvement . This is an innovative web-based system designed to support NHS clinical teams. It has enabled our team to structure the project well.

My work involves a particular focus on confidence levels of nursing staff before and after training utilising an evidence-based scale. I plan to evaluate by employing a meaningful competency framework used with critical care nurses. Clinical indices will be completed, including assessing xerostomia.

Research is exciting! It encourages us to think and curiosity is good for motivation. However, it is important to have an excellent supervisor and good collaboration with the wider multi-disciplinary team is essential.



GDC THE SAFE PRACTITIONER: A FRAMEWORK OF BEHAVIOURS AND OUTCOMES FOR DENTAL PROFESSIONAL EDUCATION

Following feedback from professionals and stakeholders, this newly agreed curriculum will take effect from September 2025. The revised learning outcomes and behaviours for each profession can be downloaded below:

https://www.gdc-uk.org/education-cpd/quality-assurance/learning-outcomes-review

SAVE THE DATE

BSDHT 75TH BIRTHDAY CELEBRATIONS

Join us for a fantastic event celebrating BSDHT's 75th birthday! We are thrilled to invite you to The Royal Air Force Club, located in the heart of Piccadilly, London.

Get ready for an afternoon filled with laughter, fun, and reminiscing about the past 75 years of BSDHT's incredible journey. This event promises to be a memorable gathering of BSDHT past presidents, award winners, council, executive team and members.

Don't miss out on this special occasion – mark your calendars now!

Saturday 6 July 2024, 12:00 - 15:30

Numbers are restricted therefore a ballot will open in the New Year.

Tickets cost £27.50 so keep a close eye on BSDHT socials to join the queue to secure your place!

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KENT BRUSHES
FROM ROYAL ROOTS TO ORAL CARE

Steve Wright, CEO of Kent Brushes, explores the fascinating evolution of Kent Brushes, from its royal connections in the world of haircare to its entry into preventive oral care.

Recognised globally for its exceptional craftsmanship in hairbrushes and a history of supplying the British royal family for nine consecutive reigns to date, Kent Brushes has recently broadened its horizons into the world of oral care.

It is a brand name synonymous with quality and tradition and has a rich heritage that stretches back over two centuries. Indeed, Kent Brushes traces its origins back to the late 18th century, when William Kent founded the company.

This incredible legacy not only underscores Kent Brushes' commitment to excellence but also forms the foundation for its expansion into the newest product line - oral care.

A royal legacy

Initially, the company specialised in producing high-quality hairbrushes, setting the gold standard for craftsmanship and developing a legacy of excellence that has shaped Kent Brushes' identity.

With a commitment to using the finest materials and traditional techniques, Kent Brushes quickly gained recognition for its exceptional products.

As was briefly touched upon earlier, one of the most noteworthy milestones in the company's history is its association with the British royal family. Since the reign of George III, Kent Brushes has proudly held the Royal Warrant, a mark of recognition for supplying premium hairbrushes to the royal household.

This endorsement from the British monarchy speaks volumes about the brand's dedication to quality and excellence.

Over the years, the brand has seamlessly blended tradition with innovation, continuously evolving to meet the changing demands of the market, while maintaining its commitment to craftsmanship.

Today, Kent Brushes' products can be found in over 100 countries around the world.

BY APPOINTMENT TO
HER MAJESTY THE QUEEN
BRUSHMAKERS – G B KENT & SONS PLC

KENT.

THE FINEST BRUSHES AND COMBS SINCE 1777

Expanding the brush empire to oral care

While Kent Brushes' expertise in hairbrushes has solidified its reputation, more recently the company saw an opportunity to make use of its craftsmanship and knowledge in an exciting, new market - oral care.

The transition to producing toothbrushes was a natural evolution, given the company's dedication to using high-quality materials and maintaining meticulous standards.

In fact, it's a transition that has been taking place internationally over several years. To offer one nugget of fascinating insight into its evolution, Kent Oral Care has become one of the top selling toothbrush brands in South Korea.

Now coming to the UK, the new SONIK range means Kent Brushes stays true to its legacy of excellence at home.

These toothbrushes have been designed with the same attention to detail and precision that makes the hairbrushes so highly regarded.

Kent Oral Care offers a subscription service, which enables users to sign up to receive replacement brush heads through the post at a frequency that suits them. Subscribing to the replenishment programme offers a range of benefits, including convenience, cost savings, customisation, regular replacements, quality assurance, sustainability, and flexibility.

An enduring spirit of excellence

Kent Brushes' journey from its royal roots in hairbrushes to its venture into oral care is a testament to the enduring spirit of craftsmanship and innovation.

Whether it's a regal hairbrush or a cutting-edge toothbrush, Kent Brushes remains a trusted name that signifies excellence in personal care.

For further information, please visit www.kentbrushes.com/oral-care

BSDHT POSTER COMPETITION 2023

Congratulations to the winners

BEYOND BOUNCING BACK

EXPLORING UNDERGRADUATE DENTAL PROFESSION STUDENTS' PERCEPTIONS OF RESILIENCE

VAIDA KAUNAITE

BSC (HONS) DENTAL HYGIENE AND DENTAL THERAPY

UNIVERSITY OF PORTSMOUTH

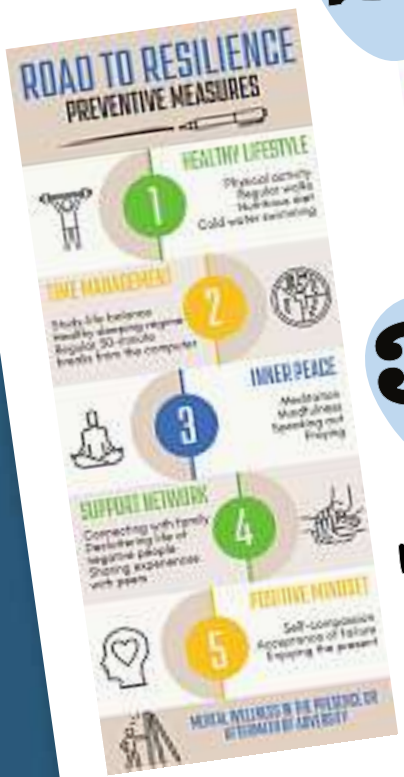
1 Introduction

The first signs of mental health issues in dentistry manifest as early as undergraduate training, thus it is essential to delve into the concept of resilience to equip those studying and working in dentistry with the resources to cultivate a positive mindset.

Aim

To adopt a qualitative approach to explore undergraduate dental profession students' perceptions of resilience.

2 Methodology



3 Results

DH and DHT students' perceptions of resilience

- Ability to bounce back and maintain mental well-being in the presence or aftermath of adversity
- "Ordinary magic" – rooted in everyday, seemingly mundane processes rather than exceptional qualities
- Dynamic and contextual phenomenon
- Vital attribute to maintain a positive attitude and emotional intelligence while coping with academic demands
- Fluctuates due to an interplay of personal, social and environmental factors
- Process existing on continuum

Factors challenging students' resilience:

- Remote learning – isolation and lack of belongingness
- Conflicting tutor opinions – feelings of uncertainty
- Study-life imbalance
- Commuting – time spent travelling instead of studying
- Paediatric clinics – treating anxious children

Factors enhancing students' resilience:

- Challenges – chance to explore strengths and weaknesses
- Positive mindset – hope, acceptance, self-compassion
- Reassurance and empathy from family and friends
- Academically driven setting and vicarious learning
- Knowledge and adequate preparation

4 Conclusion

Students demonstrated an extensive understanding of the multifactorial nature of resilience and identified several resilience-building strategies, which may inform the curriculum of future resilience training targeted towards dental profession students.

A mixed method study to establish the current level, nature and attitude to the provision of treatment under direct access for dental hygienists and dental therapists who are members of the British Society of Dental Hygiene and Therapy.

Laura McClune[1] ,Marina Harris[2] , Debbie Reed[3]

[1]MSc, Dip DH, DCP Teaching Fellow and Research Fellow of University of Portsmouth Dental Academy.
[2]PhD, BSc, RDH, LLM, FHEA. BSDHT publications Team. Associate Professor University of Portsmouth Dental Academy.
[3]EdD, MSc, PGCHE, BA (Hons), Cert Ed, FHEA, CCIPD, FCGDent, ANCUP, GCGI. Reader (Associate Professor) University of Kent.

Introduction

In 2013, after considering the impact on patient safety, the General Dental Council (GDC) removed the barrier to Direct Access (DA) for dental hygienists (DH) and dental therapists (DT).[1] This means that DHs and DTs were permitted to carry out their full scope of practice without a written prescription on the patient having to see a dentist first. DA was, and still is, broadly supported by professional organisations such as the British Society of Dental Hygiene and Therapy (BSDHT). However, dentists had previously expressed their concerns, which included worries around education, competence and the clinical ability of DHs and DTs.[2]

Aim and objectives

To perform an online survey and follow-up interviews to assess the extents level, nature and attitude of dental hygienists and dental therapists on the provision of treatment under direct access.

Methods

- Ethics approved by the University of Kent Global and Lifelong Learning Ethics Committee
- Online survey to all BSDHT members
- Data from Google Docs; Excel pivot tables. Filters were used to carry out the descriptive analysis of data from the survey responses
- Interviews participants were recruited from survey participant who had consented to being contacted
- The qualitative research was undertaken using case study methodology. Interview data were analysed using Braun and Clarke thematic analysis model.[3]
- The relationship between codes, categories and themes is detailed in Figure 1
- The relationship between codes, categories and themes is detailed in Figure 1
- Verification techniques: inter-observer and member checking. Reflexivity was considered throughout the analysis

Figure 1. Relationships between codes, categories and themes

Results:

- The response rate to the survey was 16% (n=419)
- Participants opinions on the GDC allowing patients DA were 'very favourable' or 'quite favourable' (78% n=326)
- The majority (70% n=293) perceived their education and training as sufficient preparation for prevailing DA
- 19% (n=80) reported to never prevailing treatment under DA
- 71% (n=299) worked under DA some of the time and 10% (n=40) worked under DA all of the time
- The provision of treatment under DA incurred an additional cost to the patients for those who provided treatment under DA some or all of the time (27% n=13)
- 75% (n=316) of participant had, or perceived to have, practice support to offer DA and 25% (n=103) did not feel supported

Thematic analysis uncovered four themes:

1. How patient care is delivered
2. Limitations to providing Direct Access
3. Lack of understanding of others towards Direct Access
4. Overall advantages to the delivery of care

Discussion

The large majority of participant reflected the opinions of previous research[4,5] with regards to favouring the ability to allow patients DA to DHs and DTs. However, there were mixed opinions to the advantages and disadvantages of DA for patients, DHs, DTs and dentists. Through interestingly, the interviews revealed that DA was considered to be advantageous to clinicians by increasing their sense of autonomy, and for patients it increased their freedom of choice by whom they could be treated.

Conclusion

- Dental hygienists and dental therapists are confident in providing care under DA
- Contractual and other barriers lead to the under utilisation in the NHS
- Thorough qualitative methodology the study gained further insight and a deeper understanding of the participants experiences of working with DA
- The researchers are mindful that the study is not representative of all DHs and DTs in the UK

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- The University of Kent Global and Lifelong Learning (GLL) Ethics Committee for reviewing the study proposal
- Margaret Ross OBE and Stephen Turner for permitting the authors to use their survey
- The BSDHT secretariat for distributing the survey to as members and to BSDHT members for taking part in the survey and interviews
- Funding for this project was provided by the British Society of Dental Hygiene and Therapy

What intervention delivery methods are the most advantageous at improving the oral health of prisoners and the efficacy of prison dental services?

Clare Haylett
Benjamin Tighe
LSBU

Introduction

The oral health of the global prison population is significantly worse than the general population (Treweman and Richards, 2019). Current literature informs us that prisoners often come from predominantly lower socio-economic backgrounds, entering prisons with historical oral health neglect (Robinson et al., 2009; Haidari et al., 2009a), (Hoodkar et al., 2019). Providers are faced with many challenges when trying to deliver dental services (National Health Service England, 2020), and Government strategies emphasise the urgent need for improvements in dental service delivery in prisons, to improve the oral health of prisoners (NHSE, 2022); Scottish Government, 2015; HM Inspectorate of Prisons, 2017). This paper looks to explore strategies focused on achieving these objectives.

Aim

Literature review to evaluate current research explaining the provision of interventions aimed at improving the oral health of the global prison population, to make recommendations to the UK prison service, for a standardised, evidence-based approach to improve prisoners' oral health and efficacy of dental services.

Methods

A PICO table was created and used to help formulate the search strategy and supported the development of the research question.

Searches of Medline and CINAHL databases were carried out and limitations applied. Inclusion and exclusion criteria were applied.

After screening, five papers were identified and included for data extraction. Data was extracted by one reviewer independently and critical appraisal was completed using the Joanna Briggs Institute critical appraisal tool for cross-sectional studies (JBI, 2020).

Results

The papers identified were all cross-sectional studies, and as such considered to be of lower quality, with a higher risk of bias (Evans, 2003). The studies all demonstrated limitations to their study design, including small numbers of participants, utilised convenience samples, and were limited in their scope of evaluation and reporting of results. That said some key findings were extracted from the literature. Oral health promotion delivered face to face achieves enhanced outcomes with compact groups. Graph A provides a visual insight into the different methods of triage and their effectiveness.

Findings showed that utilising staff with non-dental backgrounds to deliver screening, demonstrated poorer results. Often medical nurses had to triage prisoners oral health (OH) needs. Results showed a vast difference in the perceptions of proposed treatment between the medical nurse and the dentist.

A combined approach of oral health promotion and screening is required to help prisoners achieve optimal oral health.

Discussion

After evaluation, positive outcomes for prioritisation of prisoners' dental needs were identified, leading to improved efficiency in the running of dental clinics and reduced waiting times. All the studies differed in their approach to achieve the common objective of improving prisoners' oral health. Key themes emerged from the literature and were compared, poor oral health and demand on services, lack of oral health promotion, screening modalities, the use of multidisciplinary teams, prison environment, and challenges in delivery of care.

Conclusion

The results from this research are not significant enough to make recommendations, but they provide a valuable overview of interventions for improving oral health and prioritising dental services in prisons. Evidence informs us that in recent years there has been an increased focus on prisoners OH, yet currently, there is no standardised system for assessment and prioritisation of OH needs of prisoners in the UK, and dental requirements are not being met during their time in prison (Haigh et al., 2008). Utilising a mixed dental team (MDT) is essential to increase efficacy of dental services (Feindel et al., 2016a) and dental care professionals (DCPs) can play a crucial role, working closely with dentists and other healthcare providers to coordinate comprehensive care for prisoners.

Due to limited, low quality studies in this field, an urgent need for further research is essential, to provide stronger evidence for policy makers.

Recommendations for practice

- Create a prison environment that promotes OH.
- Introduce DCP led OH education programmes, with an emphasis on common risk factors affecting this population, such as smoking, poor diet, drug and alcohol dependency.
- Screening performed by a DCP, on admission to prison, to identify and prioritise specific treatment needs.
- Utilise a MDT approach with healthcare and prison staff.
- Ensure services accommodate needs of short and long term sentences equally.

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IS MOUTH CANCER LINKED TO HPV?

BY JENNIFER JENKINS

As dental professionals we are aware of the main causes of mouth cancer, such as tobacco smoking and alcohol consumption. But what do we know about the role of the Human Papilloma Virus (HPV) in oropharyngeal cancer?

It has been generally known, for some time, that HPV is associated with cervical cancer. More than 100 types of HPV have been described, 40 of which have been encountered in the oropharynx. More recently, HPV type 16 and HPV type 18 are increasingly being implicated in oropharyngeal cancers.[1] It is important to remember HPV is not transmitted via casual contact and that 8 in 10 people have HPV at some point in their lives.[2] However, HPV is not for life! In fact, up to 90% of HPV infections can resolve.[3]

Recognition of HPV in the mouth is rapidly increasing in western societies. We are seeing more patients with a healthy lifestyle, who do not present with 'typical' risk factors for mouth or oropharyngeal cancer. According to the Office of National Statistics website, currently only 13% of the UK population smoke tobacco.[4]

Over the last 20 years the incidence of HPV positive oral pharyngeal cancer has increased from 20% to between 70 and 80%. It has been suggested that in order to halt this trend, and prevent oropharyngeal squamous cell carcinoma (OPSCC), "…there is an urgent need to raise awareness of the alarming increase of HPV-associated head-and-neck cancers". The evidence also found that HPV positive OPSCC is more prevalent in men than women, the figures for this have surpassed the incidence of HPV positive cervical cancer in women.[5] It was not until 2019 that everyone in the UK was entitled to the HPV vaccine, regardless of gender. Previously, only females between the age of 12 and 13 years were offered the vaccination. Many professionals, including Professor Mike Lewis, Professor of Oral Medicine at Cardiff University, lobbied for a change for gender neutral vaccination, so males as well as females could receive the vaccine. The HPV vaccination programme requires two doses 6 – 12 months apart. Interestingly, the vaccine has been banned in some countries including Japan until April 2023, when the vaccination programmed resumed. The Japanese government reversed its decision in light of public protests.[6]

Squamous cell carcinoma (SCC) in the oropharynx

(PHOTO COURTESY OF PROF MIKE LEWIS, CARDIFF UNIVERSITY)

In addition, with up to half the population having some form of irreversible periodontal disease it can be hypothesized that we are likely to treat patients presenting with HPV positive OPSCC. In a periodontal pocket, the epithelium cells, progressing through the cell cycle, enable HPV virus to infect basal cells, which are open to the external environment. If a high-risk type of HPV, such as type 16 or type 18, is present these cells can lose control of replication and grow abnormally.[7]

What can we do to help our patients?

- Signpost patients for barrier methods of protection.
- Open a dialogue and make the surgery a safe space.
- Posters in the waiting room or toilet to encourage patients to seek advice.

Currently, there is no screening for oral HPV as there is for cervical cancer. There are tests available but these are not the

same as cervical smears. It would be beneficial if a screening tool was developed, similar to that for cervical cancer. Cervical cancer is the only type of cancer caused by HPV that can be detected early using a well-established screening test. The other types of cancer caused by HPV may not be found until they cause more serious health problems. HPV vaccination prevents infections that cause these cancers.

The World Health Organization has a target to eliminate cervical cancer by 2030. By this point in time: 90% of girls should be fully vaccinated with HPV vaccine by 15 years of age; 70% of women should be screened using a high-performance test by age 35 and again by age 45. Screening for pre-malignant cells has a direct effect on cancer related deaths. A screening tool designed to detect oropharyngeal cancers would help reverse the incidence.

HPV can present as a cauliflower like pink/white lump - not necessarily malignant but can be an indicator of the presence of oropharyngeal HPV. Unfortunately, as professionals we are unable to tell if a cancer is HPV related without testing the tissues histopathologically.

Much of the evidence to date is not based in the UK and has been the result of research carried out in the USA or Sweden. Although there has been a study in the University Dental Hospital in Cardiff University recently, which aimed to detect the presence of HPV in the saliva.

Author: Jenny is a 3rd year dental therapy student at Cardiff University. She is passionate about breaking down barriers and improving patients' experience. In her spare time Jenny enjoys training her rare breed dog (a Xoloitzcuintli) and creating Instagram content.

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TOP TIPS FOR NAVIGATING A HAPPY COURSE THROUGH WORK AND UNIVERSITY

BY SAMIRAH CHOWDHURY

As a university student, the constant juggling act between academic commitments and personal life often feels overwhelming. Finding the right balance between excelling in studies and maintaining a fulfilling personal life is crucial for our overall well-being. Personally, I struggled with achieving this balance so never feel ashamed if you feel the same!

Setting Realistic Goals

One of the first lessons learned in this quest for balance is the importance of setting realistic goals. The demands of university life can be immense, and it's easy to succumb to the pressure of trying to excel in every aspect. By setting achievable goals, one can create a roadmap that aligns with academic requirements without sacrificing personal time. This involves breaking down larger tasks into smaller, manageable steps and celebrating small victories along the way.

Prioritisation and Time Management

Effective prioritisation and time management are the bedrock of a successful work-life balance. Creating a weekly schedule that allocates dedicated time for lectures, study sessions and personal activities ensures that no aspect is neglected. Time-blocking techniques, such as the Pomodoro technique, can be particularly helpful in maximising focus during study sessions and preventing burnout.

Carving Out Personal Time

The university journey is not solely about academic learning; it's also a time for personal growth and exploration. Carving out dedicated personal time is essential for maintaining mental and emotional well-being. Whether it's pursuing hobbies, spending time with friends, or engaging in relaxation activities, this time away from academia provides a necessary recharge, fostering a holistic approach to personal development.

Balancing Social Life and Academic Commitments

Finding the right balance between a vibrant social life and academic commitments is a perpetual challenge. Social connections contribute significantly to mental health, so fostering a healthy social life is vital. However, it's equally important to maintain a balance to avoid excessive socialising that can hinder academic progress. It is key that we understand and recognise when our body feels 'burnt out'.

Utilising Support Systems

Recognising the value of support systems is integral to navigating the challenges of university life. Whether it's seeking help from professors, joining study groups, or leaning on friends and family, these networks can provide valuable guidance and emotional support. Knowing when to reach out for assistance, whether academically or emotionally, can make the journey more manageable and less isolating.

Reflecting and Adjusting

Maintaining a good work-life balance is an ongoing process that requires self-reflection and adjustment. Regularly assessing the effectiveness of time management strategies, evaluating personal priorities, and making necessary adjustments, ensures that the balance remains sustainable. A lot of people tend to create a downward spiral by overloading themselves with work when they feel as though they are lacking. However, this can lead to burnout and a dislike for studying. Flexibility, adaptability, and being kind to yourself are key to evolving throughout the university journey.

Bringing Joy to Your Studies

Studying may not come easily to everyone, however finding ways to make studying easier and fun will help elevate your mood while learning! This may be done by making colourful mind maps, writing your notes out nicely, or planning study dates with friends. What helped me the most was speaking out loud to my siblings and friends. Overall, by introducing the 'fun' element into your studies, it does not feel like you are working but having fun.

Essentially, achieving a good work-life balance as a university student is a dynamic and personalised journey. It involves many things which can slowly be implemented in your daily life. By embracing these principles, you will not only excel academically but create a fulfilling university experience.

Author: Samirah is a 3rd year dental therapy student studying at Queen Mary University. She is grateful to have the opportunity to write an article for the BSDHT and hopes these tips can help fellow students create a good work life balance.

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BSDHT
HERE TO SUPPORT YOU

BY RHIANNON JONES

One of your many member benefits is the 'enquiries' team. This is a system set up so you can email the BSDHT team with questions related to your professional role. We receive questions on a wide variety of topics including: clinical guidelines; contract queries; professional relationship issues; General Dental Council (GDC) related problems; clarification of our current Scope of Practice; and many more. Head office screen and respond to many of the emails, but most clinical and/or GDC related issues are forwarded to the incumbent president elect.

As you can imagine, most of the enquiries are quite personal and I would not share due to confidentiality, but I thought it might be useful to highlight some of the ways we have been able to help members in the last year.

General Dental Council (GDC)

Sadly, some members have been de-registered for various reasons. Some have fallen short of a few hours

of eCPD or misunderstood the 10 hours over two years system (https://www.gdc-uk.org/education-cpd/cpd/enhanced-cpd-scheme-2018). Sometimes they have been audited to find that the GDC has discounted some of their hours due to lack of proof, or poor quality CPD which does not meet its strict requirements. This acts as a timely reminder to all registrants to consider the quality of CPD and the need to keep on top of their records.
In the near future, you will be able to use your BSDHT account to store your PDP and CPD certificates from any provider. Another thing to check is whether your Annual Retention Fee (ARF) payment has been collected, as some people did not open emails informing them that their payment had not processed. This will also result in de-registration. It can take over six months to complete the necessary steps required to re-register, although the GDC reassure us that they are taking steps to improve this process. It is worth setting reminders for your eCPD and indemnity declaration, and also to check your ARF payments have been processed (if you don't already do this).

Contract Queries

We receive regular emails regarding contracts and questions about promises made at interview that are not honoured. Part of your membership gives you access to an excellent legal advice team and they are best placed to clarify any points/clauses in contracts where a member has a concern. It is always better to take one's time over a contract before signing, than go through the stressful process of contesting it when one or both parties are not happy. Remember that you can negotiate a contract that will suit both parties. In our experience, many practices use the same contract for us as they would for an associate dentist, but there are too many differences. You should expect a bespoke contract with which you both feel comfortable.

Professional Difference of Opinion

These are tricky as there will always be a situation where what you believe is in the best interest of the patient does not align with your employer or referring dentist. In these situations, the guidance provided by the numerous organisations, regulators and professional societies are our first port of call. We all have clinical autonomy and can use our judgement, but what has to be remembered is how we will be judged should a patient or colleague decide to take the matter further. Although it is never comfortable to imagine ourselves having to answer for our clinical actions, it can be a useful way to guide

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RDH

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Jenny Walker
RDH

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our decision making. It is always worth checking current guidance before starting a dispute. You are expected to keep yourself updated with local and national guidelines and when you notice a change or alteration, a collegiate attitude would be to share this new information with the clinical team and vice versa. This team approach is also helpful with regards to other dental hygienists and dental therapists with whom you work. I have seen some posts on social media about fellow clinicians that would undoubtedly raise a brow or two at the GDC! It is worth remembering that the GDC have a stance on professionalism and the use of social media. Each practice should have an agreed way to deal with interpersonal issues that affect patient care. One that allows each person to be heard and also given the opportunity to explain themselves. One idea can be to have a document on each surgery PC with hyperlinks to the latest guidance. Each clinician is using the same document so disputes are less likely. Someone will need to take overall responsibility for updating it as new guidance emerges but it can save many hours of searching, in the long term. You may find that there are no UK guidelines for certain things such as 'how long after a cardiac arrest do I wait before dental treatment'. In these instances, it is often covered by international guidance or 'perceived wisdom'. If you are having any difficulty searching for something specific, please contact us and we will do our best to help you.

Cross Infection Control

Unfortunately, we still receive enquiries from members who are being expected to reuse PPE, wipe ultrasonic handles (instead of sterilise them) and work without a dental nurse. Whilst I am mindful of the shortage of dental nurses at present, it is no defence to use that as a reason for poor decontamination processes. Guidance exists for everything related to decontamination and prevention of cross infection. HTM 01-05 (and its devolved nation's counterparts) provides the guidance we are expected to follow without exception and each nation has its own inspectorate to whose rules we must adhere. We should all be familiar with the symbols for 'single use' items and also keep the decontamination instructions for each piece of equipment we use. In short, never put your own GDC registration and career at risk because of pressure to work in unsafe conditions. Please reach out to us so that we can support you to ensure you and your patients are safe.

Income Protection

The saddest enquiries we receive are those where a colleague has fallen ill or can no longer work and they had no form of income protection or savings to help them. These can be very upsetting to deal with but is helped by knowing that we introduced a Benevolent Fund in 2018. Each member pays £1 a year towards the fund which is accessed through a stringent, but fair, application process. I hope this acts as a reminder to us all that income protection is important and also that your Society is there for you in the hard times too. If you are off work for more than a few weeks or months, it can be worth getting in touch with your indemnity providers as you can sometimes reduce your payments while you are not earning.

Lost the love

Sadly, we all go through peaks and troughs in our professional lives and sometimes wonder if we want to do it anymore. If you ever feel like you don't know what to do for the best, reach out to us. It may be that we just help you to see what improvements are required to make you feel comfortable in work again, or it may be that having a coach or mentor would help. The Society has their own Coaching and Mentoring Team (https://www.bsdht.org.uk/mentoring/) who are all trained to offer support. They are all dental trained so can understand the complexity of your working lives. Remember that there is always someone who wants to listen and help.

We all find ourselves struggling sometimes and even the most organised person can miss a deadline or misunderstand something. Your Society exists to support you, its member. Please remember that we are here if you can't find an answer to your question or need a bit of support. We give such care and compassion to the patients in our care but, sometimes, we need a bit of support ourselves too.

We endeavour to respond promptly although some clinical enquiries can take longer to research. Your enquiry will be handled in the strictest of confidence and your permission to involve another party (legal representative) would always be sought.

Email: enquiries@BSDHT.org.uk

Pictured: The executive team

INVITATION TO BECOME BSDHT COUNCIL OBSERVERS

BSDHT

BSDHT Council would like to invite any interested BSDHT members to apply for the role of council observer.

It has been agreed that the work of the BSDHT Council would be more transparent to members if meetings were open to invited observers.

A number of members of the Society may attend full Council meetings purely as observers. Applicants will be accepted on a first come basis and no expenses will be paid.

Council will meet on Thursday 18th January 2024

To register your interest please email enquiries@bsdht.org.uk

BRUSHING UP ON HYGIENE POVERTY

BY RUTH BROCK CEO
THE HYGIENE BANK

Hygiene poverty is a growing issue in the UK. At the start of the cost-of-living crisis, The Hygiene Bank's research found that over 3.1 million adults were unable to afford basics such as toothpaste, shampoo or laundry detergent.[1] Since that time, the Joseph Rowntree Foundation has confirmed that over seven million of us are going without the basics.[2]

Hygiene poverty is a uniquely oppressive poverty that impacts all areas of daily life. Our research shows that going without personal care products - such as toothpaste, deodorant and laundry detergent - erodes our confidence and sense of self-worth, fosters poor mental health and leads people to isolate from connections and opportunities that could potentially pull themselves out of poverty.

Whilst hygiene poverty can be connected to a wide range of personal care products, from nappies to toothpaste, its impact on the UK's oral health is a particularly acute concern, and a priority focus for the work of The Hygiene Bank in 2024.

> "THE WHOLE FAMILY HAD BEEN SHARING ONE TOOTHBRUSH AMONG FOUR"
>
> (HEALTH VISITOR, 2022)

Hygiene poverty and oral healthcare: A twinned crisis

It is widely understood within the dental profession that poverty and poor oral healthcare are explicitly related and mutually compounding issues. The 2020 Public Health England *'Inequalities in Oral Healthcare'* report confirms that the impacts of poor oral health "disproportionally affect the most vulnerable and socially disadvantaged groups in society", a reality witnessed at a grassroots community level by our volunteers, projects and community partners.[3]

The impact of the current cost-of-living crisis on the relationship between poverty and poor oral healthcare is also being increasingly highlighted by leading healthcare experts. Last year, Camilla Kingdon, President of the Royal College of Paediatrics and Child Health, told the *British Medical Journal* that the current state of children's oral healthcare was a 'national disgrace', adding that, "It reflects diet, and it reflects a family's ability to buy a toothbrush and toothpaste because when you're struggling to feed your family, that toothbrush and toothpaste becomes a luxury item. It is simple but very visible, alarming evidence of how the cost-of-living crisis is impacting children's health."[4]

This observation is reinforced by Dr Anwen Cope, who authored a report in *The British Dental Journal*, writing that the cost-of-living crisis has the potential to "impact significantly on oral health and to widen oral health inequalities". Dr Cope specifically calls out hygiene poverty as an obstacle to daily toothbrushing.

Dr Cope's report goes on to observe that the improvements seen in oral healthcare over the past forty years can be largely attributed to the twice-daily use of fluoride toothpaste. Her warning regarding the impact of the cost-of-living crisis is stark, "If those who are most susceptible to dental caries can no longer afford a toothbrush and toothpaste, then inequalities can only widen".[5]

The Hygiene Bank is rooted in local communities across the UK and our projects and community partners have observed the reality behind the sentiments of Dr Kingdon and Dr Cope. From families sharing one toothbrush, to school-aged children never having owned their own toothbrush, the UK is currently experiencing an oral health crisis that is fuelled by hygiene poverty and exacerbated by the cost-of-living crisis.

Hygiene poverty and oral healthcare: A twinned solution

Since our inception in 2018, The Hygiene Bank has worked to tackle hygiene poverty in the UK. While we work to improve access to all products needed to feel clean, a core part of our work has been driven by the inequalities in oral health provision; toothbrushes and toothpaste are consistently our most in-demand products.

In addition to regular and consistent nationwide donations of oral healthcare supplies, The Hygiene Bank has actively championed dedicated oral healthcare campaigns in disadvantaged communities as part of our work to tackle hygiene poverty.

The Hygiene Bank Nottingham, with funding from NHS England, delivered over 16,800 dental care items in 2023. Similar dedicated oral health campaigns have recently proved successful in Doncaster, Kent, and South London. Each of these campaigns has combined educational resources with access to dental products.

There is evidence that community-based initiatives such as those implemented by The Hygiene Bank could successfully help reduce oral health issues in the UK. In her report, Dr Cope reflects that Oral Health Improvement Programmes such as *Designed to Smile* (Wales) and *ChildSmile* (Scotland) have provided some evidence that a dual approach of providing access and education can improve the oral healthcare for young families.

Collaborating for change: Nottingham

Public Health England data for Nottingham shows that 34.2% of five-year-olds had visually obvious dentinal decay.[6] At the Hygiene Bank, we believe that this is an injustice that blights childhood, and it is proven that it has lasting impacts on the child's long-term health and wellbeing.

Recognising that access to toothbrushes and toothpaste could play a key role in addressing the issue, The Hygiene Bank Nottingham collaborated with Nottingham City Council and Nottinghamshire County Council to secure £100,000 of ringfenced funding to buy dental care packs.

In 2023 alone, The Hygiene Bank co-ordinated the distribution of over 16,800 toothbrushes and toothpaste within the city, ensuring that the products and educational resources reached those most in need.

> "THE WORK THAT THE HYGIENE BANK IS DOING [TO IMPROVE ORAL HEALTH CARE] IS ABSOLUTELY FANTASTIC." COUNCILLOR LINDA WOODINGS
>
> (BASFORD WARD, LABOUR & CO-OPERATIVE)

Join our collaboration for change

These collaborative, localised initiatives highlight the immense potential to reduce hygiene poverty and drive greater oral health in our most disadvantaged communities.

We need the dental community's insight and support to help drive change. Over the course of 2024, we want to develop a dedicated oral health campaign – bringing together health expertise, product supply and education - which we will pilot in an area of deprivation to foster measurable change.

As a starting point, we would love to hear how you are improving the oral healthcare of vulnerable or disadvantaged children and families in your local community.

You can support The Hygiene Bank in many ways

1. Donate: funds, products or samples
2. Host a public drop-off point in your dental practice
3. Support your local project: Reinforce local donations with locally delivered oral health education

4. Raise awareness about hygiene poverty with your network: Introduce us to brands, trusts and organisations you think could help

5. Empower change: Be a spokesperson for reducing inequality. Share your insights, experience, and observations on hygiene poverty in the UK.

About The Hygiene Bank

The Hygiene Bank is a community-led charity and social movement tackling hygiene poverty in the UK. Driven by the belief that everyone deserves to feel clean, we are working to end hygiene poverty in the UK.

We have a national network of over 190 local projects that collect, sort, and distribute donated hygiene basics to over 1,200 community partners that support people experiencing poverty or crisis.

Ruth Brock was interviewed on the Eastman Dental Podcast. If you have time to listen, it's on all the usual podcast platforms: S3 EP5- The Hygiene Bank with Ruth Brock – The Eastman Dental Podcast – Podcast.

Contact: enquiries@thehygienebank.com

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MEET THE DIB-BERS

BY FRANCES ROBINSON

The BSDHT Diversity, Inclusion and Belonging (DIB) advisory group aims to be truly representative of the BSDHT diverse membership. We aim to highlight issues affecting our communities and bring them to the forefront of our Society's work. Whilst being allies for all diverse communities, and championing each other, we aim to raise awareness on all things 'inclusion.' So, who are the DIB-bers and what makes them tick?

Franklin Amadi (he/him)

Franklin is a dental hygienist and started his career in dentistry in 2015 as a trainee dental nurse. He currently works in general practice and in the community dental service as an outreach dental therapist.

Franklin believes in the importance of diversity, inclusion and belonging because, ultimately, we all have mouths and the level of service we receive should not depend on the body in which that mouth is carried. There are known inequalities in healthcare and where this concerns a person's protected characteristics it is unacceptable that this remains the status quo.

"I am Black. However, I find it is my identity as a man, and a Catholic, which is often of greater intrigue. My first-hand experience with these protected characteristics helps me empathise with those who have others and allows me to work to educate colleagues and friends on such issues as bias and the role it can play in practice."

Anna Charters (she/her)

Anna qualified as a dental hygienist in 2006 from the Eastman Dental Hospital. Since then, she has worked in Suffolk within NHS and private practices. She has been a pro-active member of BSDHT most recently holding the role of trade liaison in her regional group. She has also been a school governor for an SLD additional needs school in Suffolk.

"I am ashamed to say that I didn't know much about Autism until I had a child who I suspected had Autism at the age of 14 months. At three and half my son was finally diagnosed. He is pre-verbal and uses an ACC talking device. Although he doesn't use verbal language it doesn't mean he has nothing to say! His understanding of language is amazing - he understands everything that is said to him. We've been learning and gaining knowledge, attending all workshops and courses available to us, and joined SEN support groups."

Anna has been lucky to meet some amazing professionals and members of the public but sadly, it is her experience that some lack knowledge, compassion and understanding. These negative experiences drive her to improve inclusion and understanding in any way possible. When she became aware of the BSDHT DIB group, she was keen to be involved. As someone with experience of living with a child with neurodiversity, and supporting their development and learning, Anna has a raft of strategies and has many ideas to support individuals with sensory and communication difficulties.

Ben Marriott (he/him)

A dental nurse for 10 years, Ben qualified as a dental hygienist in 2023 from Cardiff Dental School. He was awarded the Diploma in Dental Hygiene Programme Prize for Excellence and also the BSDHT Graduation Award.

Ben is a neurodivergent, disabled, bisexual, nonbinary trans man who is interested in fostering inclusion across all areas of dentistry. Ben is multi-physically disabled with several autoimmune diseases. He is involved in the inflammatory bowel disease community, having had numerous operations and stoma bags throughout the course of his life. He currently works in practices across South Wales alongside presenting on such issues as trans and nonbinary inclusion in dentistry. He is keenly interested in working with general practices,

primary care services and universities to ensure these spaces are trans and nonbinary-friendly. Having completed both a degree in biochemistry and a diploma in dental hygiene as an undiagnosed and unmedicated sufferer of ADHD, Ben is invested in exploring how ADHD impacts students, clinicians and patients.

Outside of dentistry Ben enjoys exploring the outdoors, photography, playing guitar and helping to organise alternative events for the LGBTQIA+ community.

Frances Robinson (she/her)

Frances is a dental hygienist and since graduating in 2015, has worked in private practice, completed an MSc in dental public health at UCL and was the first dental care professional to become a clinical fellow, working with HEE for a year. She is an associate fellow of the College of General Dentistry and is the current chair of its Faculty of Dental Hygiene and Therapy.

She is a lead oral health practitioner in the NHS CDS outreach service in North East London and also works in private practice. Through these two contrasting roles, she has met a heterogenous group of patients and service users. A seasoned volunteer for various dental charities, Frances has worked across the world in low resource settings as well as a refugee camp. It was her work both nationally and internationally that led her to public health and provoked thoughts of how professionally we, as BSDHT, can best serve those that need us.

Influencing policy, engaging with key stakeholders and advocating for vulnerable and 'health inclusion' groups is a passion of hers. It was both her professional experience, and a personal affiliation, as a gay woman that led her to join the BSDHT DIB group. Frances believes that a diverse group of people generates diversity of thought.

Simone Ruzario (she/her)

Simone is a dental hygienist and dental therapist with almost three decades of experience in the dental profession and industry. She currently practises in Bedfordshire and Hertfordshire.

Simone has a BSc in medical microbiology and an MSc in public health. She is BSDHT honorary treasurer and serves on the Executive. Simone is a founding member of the Diversity, Inclusion and Belonging Advisory group and is instrumental in driving awareness and change within the dental profession. She is an active member of the Black Dental Network, supporting the business development team.

Simone has a deep passion for seeing individuals thrive and succeed at all levels and truly believes in the power of representation, especially at senior levels.

Miranda Steeples (she/her)

Miranda has worked in dentistry for 17 years, both as a dental nurse and now as a dental hygienist and dental therapist. She qualified from the University of Leeds in 2009 and works in general practice in the South East of England. She is the current President of BSDHT. Miranda completed an MSc at the University of Kent in advanced specialist healthcare and enjoys

Left to Right: Anna Charters, Ben Marriott, Frances Robinson, Miranda Steeples and Simone Ruzario at the BSDHT OHC in Bournemouth last November. Previous page Franklin Almadi

volunteering for Mini Molars Cambodia, providing dental care to children. She is a member of the Faculty of Dental Hygiene and Therapy for the College of General Dentistry and the coordinating committee for the Alliance for a Cavity Free Future UK Chapter.

Miranda is interested in diversity and inclusion because while not affected by discriminatory issues that others may face, she notes having to deal with casual everyday sexism. From 'dumb blonde' jokes in her youth to now, being of a certain age, people questioning why she is not married with children and feeling sorry for her. Her mantra is: "This has to stop!" Gender cuts though all areas of discrimination that people face, becoming an intersectional issue. If we accept the existing gender pay gap, for example, what hope do other groups facing discrimination face?

When not thinking about oral health, Miranda enjoys salsa dancing, Pilates, live music, theatre and supporting her beloved Brighton and Hove Albion football club! Miranda is a voice and ally.

Help us to represent you

We want you, our members, to feel represented by the DIB board. Do we do this? Do you see similar or recognisable characteristics echoed in the team? The DIB-bers are a friendly bunch so why not reach out to them? If you have any areas of diversity and inclusion that you would like to raise or see as an educational piece, get in touch, we would love to hear your ideas!

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WORKING TOGETHER TO REDUCE CHILDREN'S SUGAR INTAKE AN ONLINE RESOURCE FOR PARENTS

BY COLETTE REYNOLDS

It is widely accepted that good nutrition is important to support growth and development during childhood. The first years of life are a critical period for establishing good dietary habits, tracking into adulthood and influencing growth, general health and developmental trajectories.[1] Poor nutrition during a child's early years is associated with an increased risk of a number of negative outcomes including: obesity; hypertension; diabetes; and coronary heart disease.[2]

Many children do not receive good nutrition, or have good dietary habits. Much research has focused on sugar as the most important dietary factor in developing dental caries.[3] However, in the last few years sugar has been recognised as a central risk factor in the development of other diseases and conditions such as obesity, type 2 diabetes, cancer, cardiometabolic and kidney diseases.[4,5]

Despite the evidence, children are still consuming too much sugar[6] and far exceeding the maximum recommended daily intake.[7] This pattern often starts at a very young age, with many toddlers' sugar intake exceeding the maximum recommended amount for older children, i.e., aged twelve and above.[8]

Education helps overcome these challenges. Specifically, oral health education has been shown to be effective in improving the knowledge, attitude and practise of oral health and lead to significant outcomes e.g., reducing plaque biofilm.[9] While dietary advice for the prevention of oral diseases is advised as part of routine patient education[10], in practice, the reality is that clinicians are frequently subject to time constraints. In addition, while dental professionals believe that nutritional counselling is important, research indicates that many do not believe they are competent in this task.[11] A central concept of dental education should be the development of multidisciplinary teamwork (as highlighted in various reports including: 'Towards a Vision for Oral Health in Ireland 2018').[12] Key concepts from various disciplines could include nutrition, psychology and health promotion.

Reduce Children's Sugar in Positive Ways

Many parents and caregivers are also unsure how to positively reduce their children's sugar intake, including what to say or do. It is important that they are equipped with the knowledge, skills and confidence to help create healthy eating habits to improve their children's health wherever possible.

Building on my education in psychology and health promotion, as well as nutrition and health coaching, in 2017 I was inspired to set up a private coaching practice called Growing Healthy Eaters. Through this service, parents and caregivers are empowered to create lifelong healthy eating habits for children.

Reduce Children's Sugar in Positive Ways is an online course that focuses on helping parents and caregivers implement straightforward, practical and achievable actions in positive ways to reduce children's sugar levels.

Within the constraints of a dental appointment, it is often difficult to empower patients adequately. Priority may be given to the impact of the frequency, amount and types of sugar. However, other areas are also very important such as: how we talk about sugar and sugary foods with children; planning ahead for occasions such as Easter; practising mindful eating; and how we deal with specific challenges such as having a 'sweet tooth'.

This online resource offers positive strategies for:

- ✔ How to deal with the many, varied challenges of sweets, treats, desserts and sweetened foods and drinks
- ✔ How to deal with occasions of excess, such as Easter, and planning ahead for events such as birthday parties

- ✔ How to deal with everyday challenges such as mindless eating, having a 'sweet tooth' and child-sized portion sizes

Course outcomes include

- ✔ Have a greater understanding of how to create lifelong healthy eating habits including how to talk to children about balance and sugary foods
- ✔ Be more confident dealing with everyday challenges including how to deal with a 'sweet tooth' and mindless eating
- ✔ Have the skills to handle occasions such as parties and Christmas more successfully

This online resource can form part of the toolkit dental hygienists and dental therapists offer to parents. It includes the expertise of a psychologist, specialising in helping children with healthy eating challenges. This means you can provide your patients with more in-depth support around the challenges of sugar.

Dental Affiliate Programme

A Dental Affiliate Programme is also available to facilitate multi-disciplinary collaboration and make it easier to work together to support parents regarding their children's health, including their dental health.

Dental hygienists and therapists have the opportunity to be part of the Dental Affiliate Programme.

- ✔ It simply means you inform parents and caregivers of the course
- ✔ Support will be provided about the various methods that can be used to inform patients. These methods include informing patients onsite or online, such as with email receipts
- ✔ For every patient that buys the course, **a referral fee for each course** will be automatically paid to the dental hygienist or dental therapist

Readers of *Dental Health* can gain **free access to this course**, find out more about working together to reduce children's sugar and become part of the Dental Affiliate Programme.

Author: Colette Reynolds has a BA in psychology, an MSc in health psychology, and a PhD in health promotion. She is a psychologist and founder of Growing Healthy Eaters. She is a mother to two boys and is based in Galway. She has always had a huge interest in healthy eating and nutritious foods.

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BY JO DAWSON

MOVING OUT OF MY COMFORT ZONE

IS CAKE GOOD OR BAD?
... AND OTHER COPING TOOLS FOR CHALLENGING SITUATIONS

Throughout life, there will be times when we find ourselves in challenging situations and we feel overwhelmingly anxious and fearful, despite having accepted and agreed to be there. A familiar gut wrenching feeling in the pit of our stomachs that makes us want to change our minds and run away! This could be for any number of reasons. For example, you may have agreed to: give a speech at your best friend's milestone birthday or wedding; or to write an article; or to give a lecture in front of your peers in a big auditorium. It may be that you have applied for a fantastic job but the interview requires a power point presentation to a room full of strangers. Or you may be about to treat your very first patient as a newly qualified registrant.

We have all faced challenges that we can never forget! I recently found myself in such a situation. In the days leading up to the event, I was crippled with anxiety. Even after it was all over, I was clearly identifying with imposter syndrome! I should have been reassured that I had done a good job. The feedback was really positive. I had acquitted myself very well, clearly articulating my points of view and warmly sharing my experiences with the listeners. So why was I feeling so low?

Imposter syndrome

The next morning, I had an online webinar as part of a business course I was doing and coincidentally the topic was

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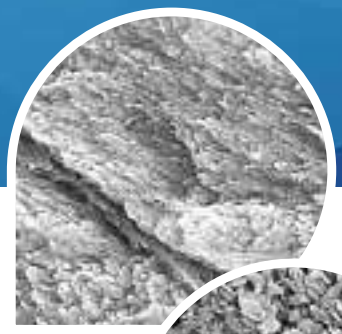

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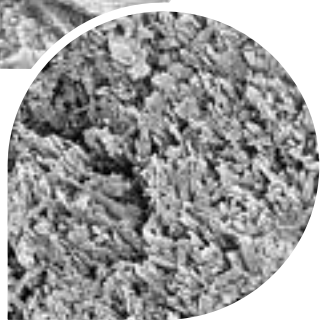

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7
YEARS OF RESEARCH

3
INTERNATIONAL PATENTS

24
CLINICAL STUDIES AND CASES

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A study conducted at the University of Milan, Oral Microbiology and Biomaterials Laboratory:*

The IRCCS Galeazzi Orthopaedic Institute found that Curasept Biosmalto (Caries, Abrasion and Erosion line) was **the only system to have shown a biomimetic type of action - due to its unique ability to promote the remineralisation of a tooth surface** with newly formed hydroxyapatite crystals.

The formation of S-HAp microcrystals was seen in a regular, compact appearance with the same structure and orientation as the existing natural enamel prisms.

This proven greater biomimicry is probably linked to the **benefits of Magnesium and Strontium; which were not contained in the other tested formulas.**

* Study on 'Biomimetic Mousses and Toothpastes for Enamel Remineralisation'. Authors: Ionescu Ac., Izzo D., Pulcini MG., Dian A., Brambilla E. University of Milan, Oral Microbiology and Biomaterials Laboratory. IRCCS Galeazzi Orthopaedic Institute, Dental Clinic. Academic Board, Naples. Journal of Osseointegration 2019.

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imposter syndrome. I was still feeling at a low ebb and did not want to participate. But then we were told there would be breakout rooms in groups of three and my guardian angel must have been watching! I was sent to a breakout room of just two and the other attendee was Ruth Hughes, a positive psychology coach. Immediately she understood how I was feeling and suggested we drop the planned imposter chat and talk over my experience the previous day. When we spoke, it became apparent I needed more time with her, so we arranged for a laser-coaching session later that day.

Coaching strategies

Ruth began our 1:1 with some ground rules. She made it clear this would be coaching not counselling. She asked questions and helped me to reframe the previous day's scenario. I had to think about my actions going forward, make my own decisions and ensure I did not use emotive self-deprecating words.

Using 3 quick and easy-to-grasp psychological tools she helped me enormously, very quickly. What a Superhero!

- **Tool No 1: Acceptance & Commitment Theory (ACT)**

E.g. is cake good or bad? Cake itself is cake. Whether it is good or bad depends upon what our goal is and the context in which we come to view the cake. My starting point therefore was to pay attention to my thoughts. Does my opinion change depending on the situation in which I find myself?

Over a longer time period I learnt to identify my personal values and how they motivate me into related action.

There is a free online quiz: VIA Character Strengths Survey & Character Reports | VIA Institute. Of the list of 24, you guess your top three strengths before you do the quiz.

- **Tool No 2: David Rock SCARF model**

If our status, certainty, autonomy, our relatedness and our sense of fairness are adversely impacted a 'threat' message is passed to our brain. It seems that all of mine were targeted that day!

Status: This was severely impacted by comparing myself with amazing previous guests

Certainty: I did not know what was going to happen and was not fully prepared

Autonomy: I was not physically comfortable

Relatedness: I found it difficult due to the unfamiliar physical situation

Fairness: I felt at a disadvantage

It is normal to feel upset and traumatised in unfamiliar stressful situations. In fact, my feelings and emotional responses were 'textbook'. Because of my emotional state I was judging the whole experience as 'bad'. But it was not bad, it was just how it was.

- **Tool No 3: CALM model (Greg Henriques -Psychology Today)**

Curious: Remain non-judgemental but ask, "Why did I feel like this? Why did it happen the way it happened?"

Accepting: I had choice: "Oh, it was awful…" or alternativly I could reframe it as, "What a great learning opportunity!"

Loving: Be kind towards myself and the others involved. I should not blame myself.

Motivate: It is important to reframe and think about how I could move forward considering what I had learned from this amazing experience.

Reflections

So how do I feel now? Looking back, I was uncomfortable. On a positive note, my passion for my projects is clear. Comparing myself to others was unhelpful. I needed to focus on how I might come across to my fellow clinicians. Hopefully, they would have found me relatable.

Moving forward, I would ensure I was much better prepared.

But the greatest learning from this whole experience is that I now have these three psychology tools. Because they are such simple memorable acronyms they can be used instantly, in the moment, in the thick of any challenging situation, to dispel negative emotions and reset my mindset to achieve my goal.

I hope you find them helpful too.

Author: Jo is a dental nurse and oral health educator in Cambridge. In her spare time she runs oral health promotion projects in the community through her not-for-profit social enterprise Awesome Oral Health CIC www.awesome-oral-health.com

Contact: jo@awesome-oral-health.com

Some useful resources:

- BSDHT Coaching and Mentoring. Email Emma Slade: MC1@bsdht.org.uk
- Smile Revolution Yoga | Smile Revolution (smile-revolution.net)
- Ruth Hughes: www.curious-human.co.uk. or email office@curious-human.co.uk or book in a complimentary half-hour chat to find out more and see if coaching might work for you at https://calendly.com/office-448/30min.
- Overview - Post-traumatic stress disorder - NHS (www.nhs.uk)
- Therapies we offer – Acceptance & Commitment Therapy (ACT) — Talking Change
- David Rock's SCARF Model - Using Neuroscience to Work Effectively With Others (mindtools.com)
- Gregg Henriques.com - Gregg Henriques

PRACTICAL TIPS FOR PREVENTION AND MANAGEMENT OF CARDIAC PATIENTS IN THE DENTAL SETTING

BY EILISH DUFFY

Global advances in medical care, and an increasingly ageing population, have impacted a rise in non-communicable diseases (NCDs), including cardiovascular related disease (CVD). The United Nations has now set a target to reduce the incidence of the four major NCDs by 25% by the year 2025.[1] As healthcare professionals we can all play an active role in meeting this target. Almost 17.9 million lives are lost annually to a CVD[2] although it is believed that 80% of such deaths are preventable.[3]

CVDs include a group of disorders of the heart and blood vessels including coronary heart disease, cerebrovascular disease, rheumatic heart disease and other conditions.[2] The impact of a cardiovascular related disease is profound and can affect a person's quality of life. A recent study in Vietnam found that quality of life was negatively impacted in individuals who had been diagnosed with hypertension, a manifestation of cardiovascular disease.[4] CVDs account for the most premature NCD deaths every year.[5] Furthermore in 2021 CVD was estimated to cost the EU €282 billion with losses in productivity being associated with early mortality and incapacity for work estimated at €32 billion, or 12% of the total costs. These startling statistics are on an upward trajectory with 55% of the total costs, or €155 billion, attributed to direct health and long-term costs. This equates to 11% of total EU-health expenditure.[6]

With CVD being ranked the most common medical ailment presenting in the dental setting,[7] it is important that we are confident in our risk assessments and treatment of our patients.[8]

Heart disease as an umbrella term includes:[9]

- Congenital heart disease
- Rhythm disorders
- Valvular disease
- Peripheral artery disease

Patients presenting with any of these conditions should be treated with caution to ensure safety and comfort throughout dental procedures as suboptimal management may lead to delays in treatment[10] or more complex medical issues.

Treatment objectives for patients with cardiac disorders should include identification of all risk factors relating to their oral health status.[9,10,11]

Clinicians should focus on individually tailored patient care according to identifiable risk factors, treatment needs and what the patient can manage at any given visit.

Table 1: **Modifiable and non-modifiable risk factors for cardiovascular related disease and periodontal diseases**

	Modifiable	Non-modifiable
Heart disease[3]	High blood pressure High blood cholesterol Smoking / Tobacco use Obesity Physical inactivity Diabetes Diet	Age Gender Genetics, Ethnicity
Periodontal diseases[12]	Plaque biofilm Diabetes Smoking / Tobacco use Obesity Alcohol Stress	Age Gender Genetics Ethnicity

Medical history screening

A comprehensive medical history will identify and may help mitigate the risk of acute medical incidents as well as early identification of risk factors. A family history of NCDs should be recorded to identify any potential risk of comorbidities that may impact dental treatment.

Although not always easy to obtain, honest information from the patient regarding recreational drugs is of the utmost importance. Cocaine, for example, is a local anaesthetic drug by nature which stimulates the central nervous system and the cardiovascular system. The risk for dental clinicians is that it can remain in an individual's circulation

for 1-2 days.[13] Therefore, the use of dental vasoconstrictors is contraindicated as it may lead to myocardial infarction.[14]

It must be noted there are areas of cardiac care not covered in this article and local guidance should be sought regarding the management of such conditions.

Stress

Increased stress levels may lead to a temporary increase in blood pressure. Lifestyle habits such as over eating, tobacco use, or drinking alcohol, often associated with stress, can lead to further increases in blood pressure.[15,16] The role stress plays in systemic disease, particularly cardiovascular disease, has been understood for many years[17,18] however behavioural change techniques can be employed in the management and treatment of dental disease.

Smoking

Blood pressure will rise acutely following smoking or chewing tobacco; the chemicals released can damage the lining of the artery wall[19] and have been associated with atherosclerosis.[20] The narrowing of the arteries can increase blood pressure.[19,20] Given the common risk factors associated with cardiovascular disease and periodontal diseases (Table 1), prevention of NCDs including CVD should be included in the treatment planning process for dental patients through risk assessment and early intervention of behavioural change.

Hypertension

Patients with a known diagnosis of hypertension should have their medications and their current medical status recorded at each visit.[21] Clinicians should ask patients when they last had their blood pressure checked, what the reading was and note if their cardiovascular health is regularly being monitored. Recent evidence suggests that patients with active

Table 2: **Classification of blood pressure measurements**

Category	Systolic (mmHg)		Diastolic (mmHg)
Normal BP	<130	and	<85
High – Normal BP	130-139	and/or	85-89
Grade 1 HT	140-159	and/or	90-99
Grade 2 HT	≥160	and/or	≥100

Abbreviations: BP: blood pressure; mmHg: millimetres of mercury

Data from: 2020 International Society of Hypertension Global Hypertension Practice Guidelines[21]

periodontitis may not reach therapeutic hypertension goals despite taking medications for this condition[22] and if patients are not attending for regular blood pressure screening, they may be unaware of this.

As well as risk assessing a patient through a medical questionnaire, some evidence supports routine screening of blood pressure, and vital signs, including pulse, at every visit to the dental surgery.[15] Although it may be advantageous to record the blood pressure for every patient, there are barriers involved in the process including, additional time required and appropriate protocols in place for onward referrals. It must be noted a single blood pressure screening is not a diagnosis and should be referred onward appropriately for further investigations and medical management.

Obesity

Obesity is defined as having a BMI >30.[23] Evidence shows that as BMI increases, the risk of hypertension also increases compared to normotensive patients.[24] Given the links to diet, behavioural change and prevention strategies employable in dentistry for dental diseases this is another area to be considered for early risk assessment intervention by the dental team.

Local anaesthetic

Patients who take cardiovascular medications and are reaching therapeutic levels of management are generally not considered at an increased risk of cardiac events with the use of a local anaesthetic.[25] However, patients with the following histories are considered high risk: a recent history of myocardial infarction; coronary bypass surgery; cerebrovascular accident within the past six months. This group of patients should not be given a local anaesthetic with a vasoconstrictor until their medical condition is considered stable and controlled by an appropriate medical professional. Patients with uncontrolled hypertension, angina, arrythmias and hyperthyroidism also should not have local anaesthetic with a vasoconstrictor administered until medical stability has been achieved.[26] Treatment should be delayed until the risk is stable.

Periodontal Pathogens and Cardiovascular Disease

P. Gingivalis, T. Denticola and *T. Forsythia*, gram negative anaerobic oral bacteria associated with periodontal diseases, are also thought to have a common association with cardiovascular related diseases.[27] There is evidence to suggest periodontal pathogens have the ability to invade the endothelium calls and contribute towards atherosclerosis and subsequently hypertension; *P. Gingivalis* has been shown to invade vascular tissues. Furthermore, an increased host inflammatory reaction has been linked to periodontal pathogens and systemic inflammation is linked to the atherosclerosis.[27]

Multidisciplinary management of dental patients

The dental team is well positioned to risk assess cardiac patients and identify preventative strategies early, where applicable. However patients with more complex needs will require medical management in acute settings.

In terms of multidisciplinary working, there is more often than not a disconnect between the dental team treating patients in community-based settings and those responsible for medical care in either GMP practices or consultant level care. Early screening for risk factors for NCDs, in particular cardiovascular and cardiac related illness, will enhance patient centered care for all professionals involved in their care and ultimately improve treatment outcomes. The dental team plays a pivotal role in the prevention of NCDs through screening, risk assessment and referrals to other healthcare professionals where applicable and necessary.

Summary

The evidence associating the risk of periodontal diseases to an increased risk of cardiovascular diseases is growing and so the treatment modalities across all healthcare will need to reflect this to enhance prevention of the burden of disease.

Author: Éilish is a lecturer in dental studies at the Technological University of the Shannon (TUS) Ireland. She has a BSc in oral health sciences and a Masters in dental hygiene. Éilish is passionate about oral systemic health and in particular prevention. She previously worked in the area of research investigating links between type 2 diabetes patients, foot ulcers and periodontitis.

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ETHICAL CONSIDERATIONS OF E-CIGARETTE USE FOR HARM REDUCTION IN SMOKERS

BY BENJAMIN MARRIOTT

Introduction

The modern iteration of electronic cigarettes, commonly known as e-cigarettes or vapes, was invented in China in 2003. Shortly after, they were introduced to the European market and have been growing in popularity ever since.

They are designed to provide inhaled doses of aerosolised nicotine. The nicotine and flavouring agents are suspended in a propylene glycol or glycerine solution and drawn over a battery-powered atomiser to produce aerosol. E-cigarettes are available with different concentrations of nicotine, and some have no nicotine formulations.[1]

Estimates suggest that current e-cigarette use among the general adult and young populations in Europe ranges from 0.2% to 27%, currently 7.4% in England. Estimates for daily use ranged from 1% to 2.9%. Current smokers of conventional cigarettes showed the highest prevalence for the use of e-cigarettes, ranging from 20.4% to 83.1%, followed by ex-smokers at 7% to 15%.[2]

E-cigarettes are commonly used in attempts to stop smoking, but evidence about their safety and effectiveness is limited. As dental hygienists and dental therapists we see patients on a regular basis and are well-placed to offer ongoing support and encouragement during the smoking cessation process, as encouraged by the UK National Health Service (NHS) 'Make Every Contact Count' initiative.[3] It is important that we remain current with the latest evidence-based information on this topic, as we are often the first to be asked for advice regarding e-cigarettes.

Nicotine Content

Nicotine is a highly addictive substance and the level of nicotine contained in e-cigarettes is often difficult to quantify as labelling is inconsistent. Some are marked percentage per volume (e.g. 2%), and others by concentration (e.g. 20 mg/ml). Newer formulations use nicotine salts which allow higher levels of nicotine to be inhaled with less irritation to the throat than previous versions.[4]

The UK Medicines and Healthcare products Regulatory Agency (MHRA) introduced regulations which restrict the capacity of the tanks to 2ml, and restrict e-liquids to a strength of no more than 20mg/ml (2%), for e-cigarettes sold in the UK. However, it has been found that the concentration of nicotine in the e-liquid may also be inconsistent to that shown on the label, with some products being recalled from supermarkets after testing showed they exceeded the allowed nicotine levels.

Health Effects of E-cigarettes

Concerns about the safety of e-cigarettes grew after an outbreak of serious respiratory disease in the US in 2019. The disease was termed E-cigarette or Vaping Use-Associated Lung Injury (EVALI), and 2600 people were hospitalised with 60 fatalities between March 2019 and January 2020. It was discovered that EVALI was not caused by vaping nicotine, but by vaping the chemicals THC (cannabis) and Vitamin E Acetate. Once these chemicals were withdrawn, cases of EVALI diminished.[5]

UK Regulations prohibit the use of these chemicals in e-cigarette liquid, along with any chemical known to pose a risk to human health in both heated or unheated form. Diacetyl was another such chemical which was shown to cause the irreversible lung disease bronchiolitis obliterans ('popcorn lung'), and this was banned in UK vape products in 2016.[6]

Cancer

The most widely discussed benefit of e-cigarettes over cigarettes use is the reduced risk of cancer. E-cigarettes deliver lower levels of carcinogens than cigarettes[7] and lower levels of carcinogens are found in the bodies of e-cigarette smokers.[8] However, it cannot be claimed that e-cigarettes pose zero risk of cancer. Lung carcinogens such as nicotine-derived nitrosamine ketone (NNK) have been found at low levels[7] and known bladder carcinogens have been detected in the urine of e-cigarette users but not non-users.[9] Nicotine, while not a carcinogen, has been shown to promote the growth of blood vessels that supply tumours and speed tumour growth.[10] A 2014 study that assessed the aerosol from 12 different brands of e-cigarettes, showed that while they contained some toxic substances, the levels of the toxicants were 9-450 times lower than in cigarette smoke.[7]

Cardiovascular Disease

E-cigarettes work by creating an aerosol of ultrafine particles to carry nicotine to the lungs. These particles are

sometimes smaller than the those found in conventional cigarettes. These ultrafine particles can trigger inflammatory processes and are directly implicated in cardiovascular disease and acute cardiovascular events. Daily e-cigarette use increases the odds of having a myocardial Infarction (odds ratio 1.79) approaching that found with conventional cigarette use (odds ratio 2.72).[11]

Pulmonary Disease

Conventional cigarette smoking is well known to cause multiple forms of interstitial lung disease (ILD), an umbrella term for diseases that cause scarring of the lungs.[12] Cigarette smoke is an inflammatory stimulus which recruits macrophages, inflammatory cytokines and tumour necrosis factor to lung tissue.[13] Studies have shown that e-cigarette use leads to a similar cytokine stimulation. E-cigarettes have been shown to be a causative factor in the development of various types of ILD.[4]

E-cigarette use has been implicated in other severe forms of lung injury such as acute respiratory distress syndrome (ARDS) and diffuse alveolar haemorrhage (DAH).[14]

E-cigarette use has also been shown to exacerbate asthma, chronic obstructive pulmonary disease (COPD) and bronchitis. Studies have shown that e-cigarette users are twice as likely to have COPD as non-users.[15] E-cigarette use also doubles the risk of chronic bronchitis symptoms, with higher risk associated with higher use, and these risks were shown to persist among former users.[16]

Oral Health

Relatively little is known about the erosive potential of e-cigarettes. There are over 10,000 different commercially available flavours. Enamel erosion occurs below a pH of 5.5. A recent study looked at 45 different e-cigarettes and found that the majority of undiluted samples in the study had a pH of below 5.5.[17] Dilution of the most erosive sample required 35ml water with 2ml e-cigarette fluid to produce a non-erosive sample. The authors of the study suggest that e-cigarettes should carry a warning about the possible cariogenic and erosive effects. Further research is required to elucidate the specific effects of e-cigarettes on tooth tissue.

Cigarette smoking is well-known to be one of the major risk factors for periodontitis as it affects the vasculature and immune responses of the gingival tissues. A pilot study in 2016 looked at smokers who switched to e-cigarettes for two weeks. The results showed an increase in bleeding on probing and an increase in gingival crevicular fluid levels. This contradicted the idea that the nicotine component was the source of reduced gingival bleeding, and suggested that it may be caused by other features of smoking.[18]

Propylene glycol and glycerine from e-cigarettes absorb water in the oral cavity, reduce saliva flow

and accelerate the growth of biofilm, which can lead to oral dysbiosis and increased risk of periodontitis. One of the first longitudinal studies into the effects of e-cigarettes on periodontal health showed that e-cigarette use alters the microbiome in a similar manner to cigarette use, and may contribute in a similar way to the progression of periodontal diseases.[19]

Summary of Health Effects

About two-thirds of premature deaths caused by cigarette smoking are from cardiovascular and non-cancerous pulmonary diseases.[11] Whilst long-term data is not available for e-cigarettes, initial studies suggest that e-cigarettes have similar risks in both of these regards. It is important to make patients aware that these risks exist and to allow them to make informed choices. For the cigarette smoker, who has tried and failed at quitting smoking, it is ethical to suggest switching to e-cigarettes as a form of harm reduction, due to the reduced cancer risk. There is an incorrect perception of safety amongst many e-cigarette users. It is therefore important that we, as healthcare professionals, are not seen to endorse e-cigarettes; it should be made clear to patients that the aim is harm reduction, not elimination, and that the end goal is still to limit e-cigarette use, reduce nicotine content and quit e-cigarettes as soon as possible.

Nicotine Replacement Therapy

Nicotine has been used in the form of nicotine replacement therapy (NRT) for over 30 years, including in pregnant people, and is regarded as extremely safe even for long-term use.

A tobacco harm reduction strategy is in place in the UK. Traditionally this involves smokers being prescribed nicotine patches, gum or lozenges, but e-cigarettes are now playing an increasing role. The NICE (2021) draft guidelines on 'Tobacco: preventing uptake, promoting quitting and treating dependence', includes nicotine containing e-cigarettes as a stop smoking intervention for adults.[20]

E-cigarettes vary in their ability to deliver nicotine to the user's blood and brain. Many factors affect this such as the power of the device, the composition of the liquid and user behaviour. Devices that deliver nicotine as effectively as cigarettes are more likely to be effective substitutes for conventional cigarettes.

Manufacturers claim that e-cigarettes can assist conventional cigarette smokers to quit and switch to a 'safer alternative' source of nicotine. Limited data is available about population use of e-cigarettes, which includes dual-use of both cigarettes and e-cigarettes concurrently, and also e-cigarette use amongst those who have not previously smoked. The data currently available shows that daily e-cigarette use in smokers and recent ex-smokers was reported at 2% the first time it was measured in 2011, rising to 15.5% in 2016 and reducing slightly to 12% in 2021.[20]

A systematic review from 2016 does support the view that e-cigarette use in attempts to quit can aid smoking cessation[21] and that it may be more effective when compared with other nicotine replacement products. One study assessed the difference between e-cigarettes and conventional NRT when accompanied by behavioural support. Results showed the rate of sustained 1-year abstinence was 18.0% in the e-cigarette group and 9.9% in the nicotine-replacement group. Among participants for whom full abstinence was not achieved, more had a carbon monoxide–validated reduction of smoking by at least 50% in the e-cigarette group than in the nicotine-replacement group. However, the small number of trials, low event rates and wide confidence intervals around the estimates mean that confidence in the results is low. This is an important area of study that will require continued surveillance of incoming data surrounding e-cigarette use and cessation attempts. Currently, a recently funded large multi-centre randomised control trial is underway in the UK to investigate e-cigarettes as a cessation aid in dental settings and any impacts on oral health, particularly the response to periodontal therapy in those with periodontitis.[22]

Conclusion

Dental settings are a strategic place for smoking cessation interventions to take place. However, the use of e-cigarettes remains a divisive topic among public health professionals and researchers. Furthermore, e-cigarettes are a relatively new product, they contain chemicals not previously found in combustible cigarettes, and there is a lack of long-term data about their effects on health. Overall, there does appear to be a general consensus that the harms to both general health and oral health are lower for e-cigarettes than for conventional cigarettes.

There are some major barriers for researchers. Some funding currently only covers the costs of research into smoking cessation, so those studying e-cigarettes and their cessation often have difficulty securing research grants.

The wide availability of e-cigarettes and the fact they are sold directly to consumers, rather than as a licensed medical device to aid smoking cessation, means that they are difficult to regulate and assess. Rapid product development, and the fact that it is an emerging topic has meant that studies in the area have struggled to keep up with the public demand for evidence-based information. It is important to ensure that we let the public know that this is the case, and there may be potential harms that have not yet been reported.

In line with the suggestions in the NICE 2021 draft guidelines, we should be comfortable suggesting e-cigarettes as an alternative to current smokers as a form of harm limitation. It is important to note that cessation of both cigarettes and e-cigarettes has been shown to be more effective with behavioural support[23] and we should encourage referral to local stop-smoking services for both cigarette and e-cigarette users. E-cigarettes sold in the UK are well-regulated and we should advise against the use of e-cigarettes purchased abroad. It is pertinent to advise against the vaping of cannabis (THC) due to its links with EVALI.

It is important to note the specifics of e-cigarette use in the patient's notes, including the type of e-cigarette, concentration of e-liquid, frequency of use, total per week, similar to how we record for cigarette smokers. This will enable us to monitor and encourage e-cigarette cessation, and continue to support our patients as new information emerges.

Author: Ben is part of the BSDHT Diversity Inclusion and Belonging working group and is the Trade Liaison Officer

for South West South Wales. He has an interest in health inequalities and is a passionate advocate for transgender and nonbinary inclusion in healthcare.

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AIM

The aim of this paper is to highlight the effects of e-cigarette use and their associated oral health issues.

LEARNING OBJECTIVES

Readers should be able to:

- Identify the structure and composition of e-cigarettes.
- Discuss the harmful effects and potential risks of e-cigarette use.
- Discuss the risks versus benefits of using e-cigarettes as a tool for smoking cessation .

LEARNING OUTCOMES

By the end of this article, readers will be able to:

- Discuss the links between e-cigarettes and periodontal diseases and other oral conditions.
- Discuss the effects of e-cigarettes on general health.
- Be aware of the relative success rates of different forms of nicotine replacement therapy.

Aligned to GDC development outcomes:
A, C

To take the CPD please follow the link or scan the code:
https://www.surveymonkey.com/r/DH-JAN-2024
Deadline for submission is 29 February 2024

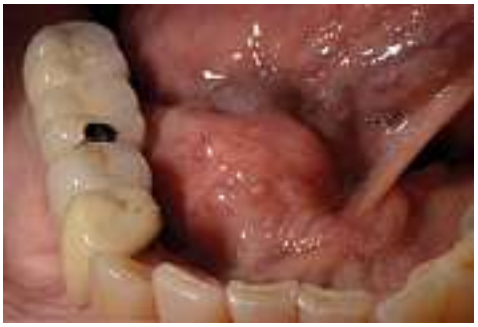
CLINICAL QUIZ

A palpable swelling in the floor of mouth was noted during routine soft tissue examination. A mandibular occlusal radiograph revealed a radio-opacity.

Q1. What is the diagnosis?

Q2. What symptoms might the patient complain of at meal times?

Q3. What treatment is required.



THIS QUIZ WAS KINDLY SUBMITTED BY PROFESSOR MIKE LEWIS

SEND YOUR ANSWERS TO THE EDITOR BY 30TH JANUARY. PLEASE INCLUDE YOUR ADDRESS.

Email: editor@bsdht.org.uk **Postal:** The Editor, Dental Health, BSDHT, Bragborough Hall Business Centre, Welton Road, Braunston NN11 7JG.

ANSWERS TO CLINICAL QUIZ NOVEMBER 2023

The winner is: **Gabriella Privitera**

Q1. Is facial drooping a sign of a stroke?

A1. *Yes-facial drooping is a sign of stroke.*

Q2. What does the acronym FAST stand for?

A2. *The initials stand for:*

- *FACIAL WEAKNESS: Can the patient smile? Has their mouth or eye drooped?*
- *ARMS: Ask the patient to lift both arms-does one drift downwards?*
- *SPEECH: Is the patient's speech slurred? Can they understand what you are saying?*
- *TIME: If the answer is 'yes' to any of these questions, follow your medical emergency protocol and call 999 immediately. It is crucial that no time is wasted as every second counts when it comes to stroke treatment and time lost is brain function lost.*[1]

Q3. Should you give the patient aspirin?

A3. *No! There is a common misconception that patients with a suspected stroke should be given aspirin. However, NICE has advised that it should not be given prior to hospital admission although it may be prescribed in hospital following a stroke caused by a blood clot (acute ischaemic stroke), but only once a diagnosis of intracerebral haemorrhage has been excluded by a brain scan.*[2]

Q4. Compared with a patient who has never had a stroke, how many times more likely is a patient who has a history of stroke to experience another?

A4. *Ten times more likely.*

Q5. What is the main treatable risk factor of a stroke?

A5. *High blood pressure is the main risk factor that can be modified.*

Q6. What percentage of strokes are preventable?

A6. *Around 90% of strokes are preventable*

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DIARY DATES

SPRING 2024 BSDHT REGIONAL GROUP STUDY DAYS

Contact: enquiries@bsdht.org.uk

Regional Group	Date	Details	Contact (Group Secretary)	Contact Details
Eastern	Sat, 16th March 2024	Huntingdon Marriott Hotel, Hinchingbrooke Business Park Kingfisher Way, Huntingdon PE29 6FL	Nancy Gieson	easternsecretary@bsdht.org.uk
London	Thu, 18th April 2024	BDA Offices, Wimpole Street, London W1	Theai San	londonsecretary@bsdht.org.uk
Midlands	Sat, 2nd March 2024	Hilton East Midlands Airport, Derby DE74 2YZ	Joanna Ericson	midlandssecretary@bsdht.org.uk
North East		NO MEETING	Sarah Hunter (Acting)	northeastsecretary@bsdht.org.uk
North West	Sat, 9th March 2024	FMC North of England Show Manchester - Refresh & Refine (NO TRADE)	VACANT	northwestsecretary@bsdht.org.uk
Northern Ireland	Sat, 23rd March 2024	Marlborough Clinic Belfast, 1 Marlborough Park, Belfast, BT9 6XS	Gill Lemon	northernirelandsecretary@bsdht.org.uk
Scottish	Sat, 20th April 2024	Minto Dental Care, 1 Liberton Gardens, Edinburgh EH16 6JX	Emma Hutichison	scottishsecretary@bsdht.org.uk
South East	Sat, 27th April 2024	One Warwick Park Hotel, Tunbridge Wells, TN2 5TA	Sam Davidson	southeastsecretary@bsdht.org.uk
Southern	Sat, 16th March, 2024	Holiday Inn Winchester	VACANT	southernsecretary@bsdht.org.uk
South West & South Wales	Fri, 1st March 2024	Arnos Manor, 470 Bath Road Arno's Vale, Bristol BS4 3HQ.	Chalis Matthews	swswsecretary@bsdht.org.uk
South West Peninsula	Sat, 9th March 2024	Crowne Plaza Plymouth	Lynn Chalinder	southwestsecretary@bsdht.org.uk
Thames Valley	28th September 2024 TBC	Venue. Stoke Mandeville Hospital - TBC	Keileigh Ierston (Acting)	thamesvalleysecretary@bsdht.org.uk

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CALL FOR PAPERS

Dear Colleagues,

In 2024 the British Society of Dental Hygiene and Therapy (BSDHT), originally the British Dental Hygienists' Association (BDHA), will celebrate its 75th anniversary. The editors of the ***Annual Clinical Journal of Dental Health*** (*ACJ*) and the ***International Journal of Dental Hygiene*** (*IJDH*), Heather Lewis and Dagmar Else Slot, are delighted to announce a collaboration to produce combined issues of the journals to showcase the scientific advances made within the dental profession by UK dental hygienists and dental therapists.

The special anniversary issues will be of direct interest to all oral health care providers since they will highlight the growth and development of our profession.

Submission Guidelines

Research reports with a structured methodology should be submitted for consideration. Submissions must support the general aims of the *ACJ* or the *IJDH* and at least one of the authors must be a dental hygienist or dental therapist based, affiliated or trained in the United Kingdom. Submitted manuscripts will be subject to peer-review. All accepted papers will be published in the November 2024 issues of both journals.

How to Submit

- All papers must be submitted through the **Wiley manuscript processing platform for the IJDH**.
- Authors should follow the **submission guidelines for the IJDH journal**
- Adjustments to conform to the *ACJ* style guidelines will be made if the manuscript is accepted for publication.
- Authors should include a statement in their cover letter that their paper is being submitted for consideration for inclusion in the special issue to celebrate 75 years of the BDHA and the BSDHT.

The deadline for submissions is **1st March 2024.**

Please contact Heather Lewis regarding the logistics in the first instance. (**editor@bsdht.org.uk**)

Questions regarding submissions should be directed to Heather Lewis (**editor@bsdht.org.uk**) or Dagmar Else Slot (**d.slot@acta.nl**)

We look forward to working with you to highlight this celebration of 75 years of our professional organisations.

Heather Lewis RDH, BA (Hons)
Dagmar Else Slot RDH, PhD

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