Ethical Viewpoint Paper

Actioning Vision 2030: Dentistry in evolution – adaptation or extinction?

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2021 has been a very significant year for oral health. January 2021 saw the release of the FDI **Vision 2030** document "Delivering Optimal Oral Health for All" [https://www.fdiworlddental.org] which advocates integration with medicine for holistic care, addressing workforce challenges to deliver oral care in all settings and aspiring towards universal health coverage (UHC) with a major emphasis on prevention as the blueprint for the future of dentistry. This coincided with the meeting of the WHO Executive Board in January 2021 and agenda setting for the 74th World Health Assembly (WHA74) in May 2021. This turned out to be a truly historic landmark for oral health in that the resolutions at WHA74 included definition of oral diseases as non-communicable diseases (NCDs) which facilitates the integration of oral health with general health and wellbeing. This makes tremendous sense in that oral diseases share risk factors (CRF) with other NCDs such as cardiovascular disease, cancers and diabetes / obesity and it provides an unprecedented opportunity for Dentistry to adapt its remit and become a truly valued contributor to holistic care, health and wellbeing.

Much has been said since that announcement by Dr Tedros at the WHA74 that the integration of oral diseases with other NCDs presents a unique opportunity for Dentistry and the Dental profession. There is however an urgent need for action and this has been continuously reinforced by the statements and ongoing dialogue within the profession including leadership of WHO, FDI and IADR, and from those outside such as representatives from the Non-Communicable Disease Alliance (NCDA), International Diabetes Federation, International Society of Nephrology, World Heart Federation, the World Stroke Organization, and more recently from COP26, and so a tremendous opportunity and impetus for change presents at this point in time. This change however will not happen organically but will require a concerted effort both upstream and downstream with a strategic plan, and a commitment for changing the entire concept of how Dentistry is delivered in primary care, and ultimately will require changes in government policy.

Ringing the changes

The need for change is global and should be driven by a range of factors that include social, economic and ethical / moral. There are **global inequalities** in the distribution of and access to oral and dental care and there is a well-documented relationship with socio-economic status being commensurate with access to and quality of dental care. In Dentistry we have a right to be indignant about the injustice that surrounds dental inequalities and the fact that the more socioeconomically deprived in society have the poorest oral health, and also the poorest general health. This righteous indignation however is a wasted emotion if it is not accompanied by action for change, and action must be aimed strategically to areas where it can make a difference.

1. **Primary dental care landscape is changed forever:** Dentistry is beginning to emerge from the greatest upheaval in primary care that has ever been experienced and the Dental team has emerged as a frontline public health workforce through redeployment in various roles, and dental health professionals have been shown to be leaders, competent and efficient vaccinators and able to work shoulder to shoulder with colleagues in other healthcare professions. In addition to their role in the provision of emergency dental care, the profession has been hailed as having stepped up as healthcare providers and good colleagues in the battles to protect, prevent spread and reduce COVID related mortality. What Dentistry has failed to do however is deal with the consequences of dental health problems with growing anxiety about the failure to provide routine dental care. These consequences extend beyond oral health to general health and wellbeing with possible psychological implications. Inevitably there will be a deterioration of oral health because of recurrent caries, gum inflammation, calculus accumulation, periapical infections, and there are possible mental health implications due to lack of access to dental care, and it is inevitable that (a) teeth will be extracted unnecessarily and (b) there will be delayed diagnosis of cases of oral cancer because of the pandemic. In order to address this and with the ongoing risk of airborne viral disease and cross-infection via aerosols, Dentistry needs to adapt.

2. **The system of remuneration for dental intervention must change**: Management of dental disease remains an enigma in that, despite being the most common of all NCDs, dental caries is entirely preventable, yet there is no concerted effort to prevent - and a lack of reward or incentive to focus on primary prevention. Dentists are rewarded to treat the consequences as opposed to the causes of dental caries and other oral diseases. The remuneration system in Dentistry in the UK is therefore fundamentally flawed and there is an urgent need for reform. Of course there will always be a need for reparative and restorative dental interventions, and the backlog created by the pandemic must be addressed, but the remuneration systems for primary care dentists must be adapted to redress the balance between restorative intervention and primary prevention.

3. **Scope of practice within healthcare workforce must change**: A major consideration is whether Dentistry is ready to take this seriously and begin the preparations- and how the future activities in a primary care dental practice might look. The answer I believe is that there has never been a better time in the history of the Dental profession to modify and enhance the role of a dentist as a healthcare professional and we will probably never be in a better position to bring primary care Dentists into such a discussion and co-develop a vision and a plan in collaboration with other healthcare professions such as medical and pharmacy colleagues and mid-level healthcare workers. This is relevant to oral health across the world as the oral health workforce is under-represented in many low income settings and delivery of a dental / oral healthcare service to populations throughout the world will take many forms, but with one common, abiding principle – a switch in emphasis from intervention to prevention. This needs to be delivered by appropriately trained healthcare workers, and this carefully managed diversification of the oral health workforce will underpin the principle of UHC and the possibility of being able to achieve universal health coverage (UHC) with respect to healthcare. It will also achieve the Vision 2030 principle of reducing inequalities and provision of "Oral Health for All".

4. **Dentistry's unique access to the healthy population must be embraced**: There have been recent discussions about the need for the traditional so called "6 monthly dental check-up" which comprises an inspection of the oral health and usually a scale & polish. Patients highly value this as do dentists since it represents an opportunity for early identification of oral inflammatory diseases and a range of other chronic diseases / disorders have oral manifestations, including oral malignancy - and preventive advice can be provided or reinforced. The other reason dentists value this regular check up is that uniquely this

represents regular access in a healthcare setting to the general population and it is an opportunity that can be exploited and expanded beyond oral health. Future virus and flu vaccination and booster programmes, HPV vaccination programmes for boys and girls, recording of blood pressure and blood sugars are examples of simple procedures that could readily be carried out in a dental practice setting, and reporting / appropriate management in collaboration with medical colleagues. So rather than discourage the regular 6 monthly check up the health professions should enhance and encourage it and adapt it towards holistic care. This would represent a truly preventive health service as opposed to reactive health service that is geared only to respond to illness. If this public health activity were to receive Government support the dental profession would respond positively and embrace these additional primary prevention roles in the spirit of overall improvement of health and wellbeing.

5. **Proven methods for behaviour change must be adopted**: Ultimately fundamental changes to the attitude of the dental profession towards dental intervention is required and making **prevention of dental disease** the primary goal in oral health which has implications for education, workforce and research. An important aspect of this will be to use evidence based tools in changing behaviour of both the care giver and the recipient. Dental health education alone has been found to be ineffective in changing behaviour, but there is emerging evidence of the efficacy of a motivational interviewing / health coaching approach which empowers the patient to make the behavioural and lifestyle changes that influence health outcomes. This is becoming increasingly used for addressing NCDs and studies that have adopted Health Coaching programmes to address obesity and hypertension have reported it's efficacy [2-3]. Dentists are trained to be effective communicators and already do embrace longitudinal motivational interviewing in smoking cessation and paediatric toothbrushing habits. It is more intensive and time consuming than health education, but if behaviour change is achieved it will have much greater cost benefit. Such fundamental change to clinical practice would also require dialogue with a broad range of stakeholders with respect to workforce and remuneration issues.

6. **Research must support the aspirations and incentives to change**: It is perceived that in addition to the positive effects on health and wellbeing another major advantage of primary prevention is cost reduction and there is scope for significant reduction in the global expenditure on dental intervention. Since there is a need for widespread implementation, there is a need for implementation research. Health economic research will be required to evaluate cost effectiveness in the short, medium and longer term. Research will also be required to clarify aetiological aspects in relation to common risk factors such as the role of infection, inflammation and immunity in dental, oral and general disease and this adds further impetus to the need for closer integration with medical disciplines. Other research should aim to develop and evaluate innovations in clinical practice, carry out clinical trials in primary and secondary care environments, develop new materials and tissue substitutes, exploit advancements in IT systems, digital workflow, remote access and investigate social determinants of health and wellbeing for all.

Conclusion

In summary, Dentistry needs to and can change as the profession has shown itself to be resilient and adaptable and it is a well-established biological principle that it is adaptation to changing environment that ensures survival. Despite the setbacks over the last 2 years, Dentistry can emerge stronger, fairer and greener and in an evolving world Dentists as Oral Health Professionals can have a very bright future. It is time to action these upstream and downstream changes simultaneously and the ideal time is now.

RECOMMENDED REFERENCES

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