

## **Editorial:**

A New Definition for Oral Health: Implications for clinical practice, policy and research

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The oral health sciences have made significant advances in our understanding of the underlying biological etiological mechanisms of oral diseases and in the development of more effective dental therapies. However, dentistry and indeed the oral health research community have focused almost entirely on the treatment of oral diseases through the lens of a biomedical model. As such, there is a growing recognition of the limitations of this narrowly focused disease perspective. Rapidly ageing populations around the world and the associated dramatic increases in chronic, long-term conditions are placing demands on health and social care systems, presenting an economic and social challenge at a global scale that is unsustainable.

Populations are, however, much better informed and interested in their health and its management than ever before, and are more empowered to discuss treatment options with their health professional. In recent decades, there has also been increasing focus on the concept of quality-of-life and its importance in health research and clinical practice. Policy makers and the public increasingly acknowledge the underlying importance of the broader social determinants of population health and oral health (WHO, 2009, Marmot & Bell, 2011). These and other developments have resulted in an increasing interest in health and how it is defined, rather than focusing solely on pathology, disease progression, and treatment. A broader bio-psychosocial model of health has evolved in recent years that has major implications for clinical practice, policy and research (Huber et al., 2011).

Recognizing the limitations of a narrow disease model, the FDI World Dental Federation has today published a new definition of oral health (Glick et al, 2016). This perspective reflects on this development and is intended to stimulate a discussion on the implications of this definition and, in particular, how to transform the new oral health framework into a research

agenda. We want to highlight the importance of this definition to oral health research and policy for innovative health care delivery.

### **Definitions of General Health**

Nearly 70 years ago, the World Health Organization formulated a definition of health that was regarded as radical and groundbreaking, both in terms of its breadth and ambition – “a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity” (WHO, 1948). This initial definition overcame the negative notion of health as the absence of disease and highlighted its multi-dimensional nature, including physical, mental and social domains. However, it was heavily criticized as being unrealistic, unworkable and unachievable. Subsequent definitions placed greater emphasis on the ability to adapt and self manage in the face of social, physical and emotional challenges and changing circumstances (Lancet, 2009; Huber et al., 2011). Health was also conceptualized as a positive resource for everyday life (WHO, 1984) and a sense of resilience and capacity to cope with stress and difficult situations to achieve balance and equilibrium. This links to Antonovsky’s salutogenic perspective and his Sense of Coherence theoretical model (Antonovsky, 1996) that has also been applied in oral health research (Nammontri, et al 2013). The social domain of health highlights the capacity of people to function and fulfil their social obligations and activities including work and domestic roles. It also stresses the importance of independence and autonomy, the ability to make decisions and take more control of one’s health. Health is now seen as a dynamic concept, subjective in nature and heavily influenced by one’s social and cultural background.

## **New Definition of Oral Health**

Based on the underlying concepts used to develop definitions of general health, researchers and policy makers have applied and modified these to develop definitions of oral health. In particular, emphasis has been placed on the *functional* components of oral health. For example Dolan (1993) defined oral health as “a comfortable and functional dentition that allows individuals to continue their social life”. Sheiham and Spencer (1997) went on to state that “Oral health is the ability to chew and eat the full range of foods native to the diet, to speak clearly, to have a socially acceptable smile and dentofacial profile, to be comfortable and free from pain and to have fresh breath.” National dental associations around the world have developed their own definitions of oral health but no universal consensus definition has emerged.

In a current editorial Glick and colleagues (2016) summarize the new FDI definition of oral health. “Oral health is multi-faceted and includes the ability to speak, smile, smell, taste, touch, chew, swallow and convey a range of emotions through facial expressions with confidence and without pain, discomfort and disease of the craniofacial complex.” Further attributes include that it “- is a fundamental component of health and physical and mental wellbeing. It exists along a continuum influenced by the values and attitudes of individuals and communities; - reflects the physiological, social and psychological attributes that are essential to the quality-of-life; - is influenced by the individual’s changing experiences, perceptions, expectations and ability to adapt to circumstances.” The proposed more comprehensive framework (Figure) treats oral health as a fluid state of wellbeing taking in account the physical, mental and social aspects while also addressing the demands of a life and daily function.

The new FDI definition for oral health and the accompanying framework are heavily influenced by theoretical models highlighting the broader determinants of oral health (Fisher-Owens et al., 2007; Watt and Sheiham, 2012; Lee and Divaris, 2014). They deserve widespread discussion and research if they are to be useful and translatable into practice in both the clinical and policy arenas.

### **Challenges to Measuring Health and Wellbeing**

Research into specific pathways through which driving determinants and moderating factors affect physiological function, psychosocial function, disease state and ultimately oral health and wellbeing presents a daunting challenge. However, the identification of such pathways can be useful in the development of interventional strategies that address all three of the domains of health and wellbeing; disease, physiological function and psychosocial function.

Wellbeing is an outcome that captures how people perceive that their lives are going well. Research has examined wellbeing by measuring positive “emotions and resilience, the realization of potential, or their overall satisfaction with life.” (Diener et al., 2009). There are several proxy tools used to measure wellbeing. These include oral health-related quality of life, wellbeing, subjective wellbeing, psychological wellbeing and satisfaction (Bann et al., 2012). Wellbeing focuses on assets in functioning, including positive effects and emotions. Much research has been conducted to measure physical and mental wellbeing, however, measurement of wellbeing should include the physical, mental, and social domains. As both regulatory agencies and health policy leaders seek to have better clinical translation of all healthcare outcomes for the betterment of oral health, it is believed that the implementation of these more comprehensive measures to include those valued at the patient perspective will have greater impact on understanding emerging preventive and treatment strategies.

## **Summary**

The new FDI definition should help to move oral health into the mainstream of health and strengthen the effectiveness of advocacy for better oral health and oral health equity. In its recognition of the importance of shared social determinants and common risk factors, it also places oral health at the center of strategies to address the global burden of non-communicable disease. The key challenge for the research community is to develop and evaluate a consensus set of measures of the domains of oral health that will be adaptable to the questions within target clinical disciplines. While there may be agreement in terms of disease and condition status, the same is not true for measures of physiological and psychosocial function. There is much to be done to give effect to the new definition, but the potential to advance the wider understanding of the importance of oral health is considerable. Let us move forward with the application of the new definition for the advancement of our clinical research armamentarium!

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