

# Another perspective

Yvonne Buunk-Werkhoven, Jossie Rotteveel and Bertine van Roy explore health awareness and the importance of optimal oral health for those with diabetes



**Yvonne Buunk-Werkhoven**  
PHD

Yvonne is an applied social psychologist and a dental hygienist. She is involved worldwide as an independent researcher in promotion, prevention, education and behavioural change within healthcare ([www.spoh-arts.com](http://www.spoh-arts.com)).

Each year on 14 November many countries around the world celebrate World Diabetes Day. Founded by the International Diabetes Federation (IDF) and the World Health Organization (WHO), this special day was launched in 1991 in response to the rapid rise of diabetes mellitus around the world.

Nowadays, oral health professionals give active consideration to diabetes, which seems to take on epidemic proportions, and dental practices have proved to be suitable locations for (pre)diabetes screening.

In addition, early diagnosis and treatment of (pre)diabetes mellitus may help to prevent more severe complications and may benefit the treatment of oral diseases, such as periodontitis (Teeuw, 2017).

## Diabetes café

In a similar vein, a thematic meeting – such as a diabetes café – could be an important intervention.

A diabetes café would also be in accordance with a basic strategic objective of the Consumer Platform Oral Care (CPM), an independent organisation in the Netherlands: ‘Providing objective information about optimal oral health for consumers, patients and professional caregivers’.

To support lifestyle and behavioural change among consumers with (pre) diabetes in Gouda in the Netherlands, a diabetes café was commissioned by the CPM, under the executive responsibility of Gabriëlle Op den Kelder-Donné.

More than five years ago, in the region of Tilburg in the province Brabant in the Netherlands, an interprofessional symposium – entitled ‘Oral healthcare and people with diabetes mellitus’ – was organised by dental hygienist Bertine van Roy for those involved with diabetics. The caregivers included dental hygienists, dentists, doctors, specialised nurses and nurse practitioners.

The findings of a pilot study conducted by van Roy and Buunk-Werkhoven (2011)

among patients with diabetes collected by doctors/GPs, nurse practitioners were presented at the symposium.

Of 102 persons with diabetes (their average age was 71.5 years, ranging from 54 to 88 years), 60% had their own denture, and between one third and up to 40% had a completed denture and/or partial denture.

Optimal oral health can be considered as a fundamental component of general health

Despite 60-80% of the people with diabetes being aware of the importance of good oral health in relation to the disease, 42% had never attended a dentist and 78.5% had never visited a dental hygienist.

In addition, the question as to whether a dentist or dental hygienist is aware of the fact that a person has diabetes mellitus was answered negatively by 52% of the target group.

## Multifaceted approach

Learned lessons from the interface of social-health-psychology and oral medicine, together with the new definition of oral health proclaimed by the December 2016 *Journal of the American Dental Association* editorial, supported the fact that optimal oral health can be considered as a fundamental component of general health, including physical and mental wellbeing.

Diabetes mellitus is a typical example of the impact a chronic condition can have on someone’s life.

Oral health is currently considered as a multifaceted phenomenon, including the ability to speak, smile, smell, taste, touch, chew, and swallow, as well as the ability

to express a range of emotions through facial expressions with confidence and without pain, discomfort and disease of the craniofacial complex.

Moreover, oral health is influenced by the values and attitudes of individuals and communities, and reflects the physiological, social and psychological attributes that are essential to the quality of life.

In addition, oral health is influenced by the individual’s experiences, perceptions, expectations and ability to adapt to circumstances (Buunk-Werkhoven and Op den Kelder-Donné, 2017; Buunk-Werkhoven, 2010; Glick et al, 2016).

The definition, together with evidence-based practice and practice-based evidence, creates opportunities for the oral health profession to reflect on what oral health encompasses, and what the implications are not only for clinical practice, development of new or fine tuning of existing oral health interventions, but also on the interprofessional level of health policy.

The aim of this article is to explore whether a focus group – or a so-called diabetes café – may contribute to consumers’ awareness and preventive knowledge related to oral healthcare.

In addition, a World Diabetes Day 2016 participation in a ‘diabetes market’ at a healthcare centre and the experiences of dental hygienist Jossie Rotteveel are described.

## Mouth mirror

In the summer of 2016, a poster-based invitation, called ‘The mouth as mirror of the body, and diabetes optimally regulated by good oral care’, was launched by the CPM as a Facebook post, shared by social media (LinkedIn and Twitter), and sent by email etc.

The message was not only aimed at consumers with diabetes and their social environment (those who are directly involved), but also at oral health professionals and physicians/clinicians, specialised nurses and nurse practitioners.

The poster-based invitation was



**Jossie Rotteveel**  
RDH

Jossie is a dental hygienist, obtaining her bachelor of health degree in Amsterdam. She has worked as a hygienist in her own (solo) practice in Alphen aan de Rijn since 2004.



**Bertine van Roy**  
RDH

Bertine graduated in 1984 from Nijmegen. She is a dental hygienist with a special interest in general health.

# Health awareness is a very important first step when it comes to health behavioural change

## From another perspective: “Awareness of the importance of optimal oral health among the healthcare consumer”

Yvonne A.B. Buunk-Werkhoven, RDH, PhD<sup>1</sup> & Gabriëlle Op den Kelder-Donné, PhD

<sup>1</sup>ARPH 2017 – International Oral Health Psychology – Amsterdam, The Netherlands  
ywb@suph-erf.nl

### Background:

- ❖ **Optimal oral health** can be considered as a fundamental component of general health, including physical and mental well-being
- ❖ **Oral health** is influenced by attitudes, experiences, perceptions, expectations and the ability to adapt to circumstances, of both individuals and communities
- ❖ **Oral health** reflects the physiological, social and psychological attributes that are essential for the quality of life

**Aim:** to explore whether a focus group meeting may contribute to **Consumers'** awareness and preventive knowledge related to **oral health** care



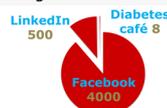
Image taken from: British Dental Health Foundation @dentalhealthorg

### Methods:

- ❖ A poster based invitation: “*The mouth as mirror of the body*”<sup>1</sup>, and “**Diabetes** optimally regulated by good oral self-care”
- ❖ Launched by Foundation CPM as
  - a paid boost post on Facebook
  - shared by social media (e.g., LinkedIn and Twitter)
- ❖ The message was aimed at **Consumers** with **Diabetes**, oral health professionals and physicians
- ❖ Broadcast for a month on websites of various professional associations and on personal Facebook timelines and websites

### Results:

- ❖ Around 4000 Dutch consumers (age 35-64) were reached by Facebook, and about 500 by LinkedIn. Only 8 persons participated in the ‘**Diabetes café**’ meeting



### Conclusion:

- ❖ The focus group meeting was quite informative to explore the impact of the effectiveness of a poster based invitation as well as of additional information provided
- ❖ It is still not clear whether only providing information resulted in an improvement of **Consumers** with **Diabetes'** awareness and preventive knowledge related to **oral health**
- ❖ The outcome of this pilot project is consistent with empirical results from other mass media campaigns in health education
- ❖ More research is needed to apply the Transtheoretical Model (TTM), the Theory of Planned Behavior (TPB), and Intervention Mapping as a protocol for developing effective behavior change interventions

Figure 1: Yvonne Buunk-Werkhoven and Gabriëlle Op den Kelder-Donné's poster, presented at the Sixth Annual ARPH Conference, 2-3 February 2017 in Leiden, the Netherlands. Quote by Rob Barnasconi (2014)

broadcast for a month on websites and social media. The poster was posted in the magazine of the Dutch Diabetes Association and in a regional house-to-house magazine, too. Some health professionals were approached personally.

Around 4,000 Dutch consumers (aged 35-64) were reached by Facebook, and about 500 by LinkedIn. However, only eight people participated in the diabetes café: four of the participants had diabetes mellitus (two with type 1 and two with type 2), one (pre)diabetic, two dental hygienists, and a relative.

The focus group meeting was quite informative to explore the impact of the effectiveness of a poster-based invitation as well as of additional information provided. In short, all the diabetes café visitors appreciated this approach.

It is not clear whether providing information resulted in an improvement of consumers with diabetes' awareness and preventive knowledge relating to oral health.

Nevertheless, the outcome of this project

indicates at least a positive short-term impact, which is in line with empirical results from other social media campaigns in health education, (Reverse et al, 2016).

### Diabetes market

On World Diabetes Day (14 November) 2016, dental hygienist Jossie Rotteveel participated in a 'diabetes market' at a healthcare centre in Alphen aan de Rijn, the Netherlands.

During an exploratory conversation, Jossie asked a nurse practitioner if people with diabetes are asked at their examination whether they visit the dentist or dental hygienist. Remarkably, an oral screening by a nurse practitioner is required, but rarely done.

It was discovered during the diabetes market that everyone (the dietician, the podiatrist, and the physiotherapist) apart from the dental hygienist all knew each other from the healthcare centre. It turned out that the healthcare centres in Alphen on the Rhine had previously organised a 'diabetes

market' in the week before World Diabetes Day. The number of visitors was between 30 and 100 people per 'diabetes market'.

Participation of Jossie Rotteveel as a dental hygienist was the only contribution of an oral health professional.

Around 20 diabetics who visited the dental hygienist during the 'diabetes market' completed a short evaluation form. They were well aware of the risks of poor oral health and diabetes mellitus (supported by Teeuw, 2017).

Findings from the pilot study and the 'diabetes market' showed that a carefully and effectively carried out population-based programme of personal oral self-care may play an important role in the improvement of oral health awareness among persons with diabetes mellitus.

### Summary

To conclude, health awareness is a very important first step when it comes to health behavioural change, and (oral) health clinicians must consider various aspects when designing interventional, self-care efforts to improve the oral hygiene of those with diabetes. [OH](#)

### References

- Buunk-Werkhoven YAB (2010) *World White Teeth: Determinants and promotion of oral hygiene behavior in diverse contexts*. Thesis. University of Groningen. ISBN: 978-90-376-4262-7
- Buunk-Werkhoven YAB, Op den Kelder-Donné G (2017) *From another perspective: Awareness of the importance of optimal oral health among the healthcare consumer*. Sixth Annual ARPH Conference. 2-3 February 2017, Leiden, the Netherlands
- Glick M, Williams DM, Kleinman DV, Vujcic M, Watt RG, Weyant RJ (2016) A new definition for oral health developed by the FDI World Dental Federation opens the door to a universal definition of oral health. *J Am Dent Assoc* 147(12): 915-917
- Reverse E, Schoelink N, Koen E, Buunk-Werkhoven YAB (2016) Facebook campaign on teenagers' oral health awareness: sport/energy/soft drink consumption. *Int Dent J* 66 (Suppl 1): 111-163
- Teeuw WJ (2017) Periodontitis, diabetes mellitus, cardiovascular disease: *A Bermuda Triangle*. PhD Thesis. University of Amsterdam. ISBN: 978-90-9030198-3