Good oral health is not a luxury but a necessity of life

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“The neglect of global oral health” is the thought-provoking title of the thesis of Halhid Benzian. Has dentistry remained so inadequate and poorly developed worldwide despite all the medical advances? Benzian believes so, as does Bella Monse, both of whom concurrently conducted doctoral research on initiatives to improve oral health in the Philippines and developing countries. After reading their theses, Dental Tribune Netherlands interviewed the authors on the eve of their doctoral defences at two Dutch universities.

The interest of both PhD candidates in oral health in developing countries goes back a long way. Monse (born in 1959, Innsbruck, Austria) worked as a volunteer in the Philippines in the early 1990s. “What I found there was humbling; much worse than I could ever have imagined,” Monse recalled.

Children with completely destroyed dentition and with resulting dental infections are commonly seen in developing countries. This shocking experience remained a profound memory, with the result that a few years ago, she decided to work full time as an advisor to the Department of Education’s School Dental Health Services in the Philippines. Although at first she was working to improve oral health only, she soon realised that this was not enough and that the general health of schoolchildren needed to be improved as well.

Benzian (born in 1965, Bonn, Germany) worked as a volunteer oral surgeon at the Albert Schweitzer Hospital in Gabon. There he was “overwhelmed by the burden of disease”, as he was the only dentist for 450,000 people.

“I could have worked day and night, but gradually I realised that I was powerless to make a real impact and that only by working at a different level, with a different approach, would I be able to improve oral health.” For this reason, Benzian held various health policy positions after completing his postgraduate studies in dental public health, including a position as Development and Public Health Manager at the FDI World Dental Federation in Geneva.

How did these two international researchers come to do their PhDs at Dutch universities? “The decisive factor was Professor Emeritus Wim van Palsen, who has given a presentation on the Basic Package of Oral Care at the FDI congress in 2009. ‘By chance I sat next to Bella in the audience,’ Benzian recalled. ‘We had a similar vision and that is how it all began.’ After years of working closely together, Monse and Benzian eventually undertook PhD’s at Radboud University Nijmegen and the University of Amsterdam, respectively.

Quality of life

The title of Benzian’s thesis might appear to be rather negative. Have dental care and oral health not improved significantly worldwide? “Not for everyone,” Benzian emphasised. “In Western high-income countries, major improvements have been achieved, although there is more that can be done, but for the rest of the world, oral health care remains largely inadequate. In addition, chronic and infectious diseases, other than those affecting the mouth, often rank high on the priority list of many governments. In fact, oral health often does not even feature on those lists.”

Benzian has repeatedly been told by ministers of health that oral health care “is simply not affordable.” At first glance, this belief might be understandable, since a Western-based form of dental care is expensive, oral diseases are not life-threatening, and the burden of other severe diseases, such as diabetes and HIV/AIDS, is high. Yet, it is a misconception to consider oral health a negligible issue, Monse believes.

“In impact on quality of life is enormous. Dental care is a major problem in low- and middle-income countries because it usually remains untreated. This results in chronic inflammation in the dentition with pain that affects school attendance and child development. All of this has a significant impact on general well-being. “Anyone who has ever had severe toothache will agree,” Monse said.

Relationship between healthy teeth and development

Both PhD candidates emphasised that untreated dental problems can result in a number of medical complications. “Our concerns do not focus so much on the cavities themselves, but on the consequences of the cavities that are left untreated,” Benzian explained. He also said that many policy-makers lack knowledge about these consequences because reliable data is limited.

Monse and Benzian developed the PI-R Index, which offers a new measure for capturing the extent of the consequences of untreated caries. “Previously we only counted the number of cavities, but actually that does not tell us much,” Monse explained. “It was only when I was able to say that 85 per cent of schoolchildren had infections in the mouth, such as infected palps and abscesses, that the Philippines government realised the severity of the situation.”

Based on epidemiological research, Monse and Benzian also found a significant association between severe caries and a (too) low body mass index (BMI). This is an important finding because the growth and development of children and combating underweight are important issues for politicians in developing countries.

Is the association between caries and a low BMI not simply due to a common cause, such as a low socio-economic status? Monse acknowledged that the relationships are complex. There is indeed a link between low socio-economic status and a low BMI. However, in her thesis, Monse showed a causal link between severe untreated caries and a low BMI. Children with a very low BMI and severe dental decay that had been left untreated quickly caught up in their growth after treatment with tooth extraction.

“Without toothache, children sleep better and sleep stimulates growth. But healthy food and clean water are also important for development. This demonstrates that childhood diseases, including oral diseases, should be addressed in an integrated approach,” said Monse. “Teeth that are free of pain and good oral health are not luxuries but necessities of life,” she said.

Self-care

Even if governments in developing countries wanted to recognise the importance of good oral health, there is hardly any funding available. According to Benzian, “Many countries without a tradition of public or private oral health care look at health systems in high-income countries as models, although it is neither attainable nor realistic for them.”

What can policymakers in poor countries with a stretched health budget do? “The key lies not in oral health care itself. For those who do not have access to dental self-care is of great importance. In the areas of prevention and education, much can be achieved with relatively little means,” said Benzian. Examples include large-scale school health programmes, such as the Fit for School programme that Monse initiated in the Philippines. This programme includes some simple preventive activities that take place in schools under the supervision of teachers, such as daily handwashing with soap and daily toothbrushing with fluoride toothpaste.

Legislation too can lead to improvements in personal oral health. “The government must create an environment in which the public is encouraged and supported to stay healthy,” stated Benzian. Thus, self-care products should be as affordable as possible and harmful products that pose risks to health, such as tobacco, alcohol, and sweets should be subject to tight government regulation. Furthermore, especially in the developing world, it is important to monitor the quality of fluoride toothpaste. In a country like the Netherlands, you do not need to be concerned about this, but in many low- or middle-income countries, for example, many of the toothpastes available contain only little or no fluoride. Therefore, they are in-

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...much can be achieved with relatively little means.

If you are a dentist and you have the opportunity to speak to policymakers, seize the chance with both hands. "Most important of all is not to follow the blame approach but to identify the problems in a diplomatic manner and contribute to possible solutions. That way you subtly plant a seed in somebody's mind. Furthermore, a positive trigger can play an important role. I know of cases where decision-makers suddenly invested significantly in oral health care because, for example, their daughter was relieved of her chronic toothache by a dentist. If you experience something yourself and can relate to an issue on a personal level, the urgency of the problem becomes more concrete," Benzian advised.

However, he emphasised that the political priority of oral health in most countries remains low and every effort should be made to change this situation. "It starts with each and every one of us; talk and seek collaboration with your medical colleagues, work with a paediatrician to raise awareness of oral health wherever possible."

Long-term solutions

Among Dutch dental care professionals, there are many examples of colleagues performing valuable work in developing countries. What can a dentist do to make a relevant contribution in these countries? Monse noted that initiatives do not necessarily need to be carried out in faraway places. "Each country has its own developing world. Look for the vulnerable and disadvantaged groups in your immediate environment. Since you are familiar with the system, you can achieve a lot."

Anyone wanting to work abroad should do so in a responsible way, van Palenstein Helderman describes the wrong way: "In the past, some dentists have set up their entire practice in a developing country and started to provide the type of care with which they were familiar during a short-term campaign. That way you create dependencies among the local communities and devalue the existing health care system because once you’re gone, no one can continue the work you’ve started." Instead, he refers to dental professionals to an organisation like Dental Health International Nederland (DHIN), which assists local organisations in developing countries in oral health projects. DHIN offers the starting point for Dutch oral care professionals for their activities as a volunteer.

Benzian believes that volunteers should not provide standard dental care. "The developing world is not a playground for under-graduate dental students or an area to try out treatments or act without due care. You have the responsibility to help each patient the best way possible, otherwise you cause damage."

In addition, he warned against well-intended enthusiastic actions without first carrying out the necessary introspection, planning and co-ordination with local stakeholders. "Thoughts like ‘the situation is so bad, I provide nonstop treatment’ are understandable. But that way you don't improve the system. You have to realise that you are just a visitor and therefore you need to support long-term solutions, such as training and education of local health care providers. That way you contribute to sustainable local capacity."

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