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Implementation of a Basic Package of Oral Care: towards a reorientation of dental NGOs and their volunteers

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Dental NGOs and volunteers working in disadvantaged communities around the world do so with the best of intentions and with high motivation. Regrettably, the impact of this engagement on oral health at the population level remains rather low. This is mainly due to the choice of inappropriate approaches, the failure to integrate their projects within existing health care systems and the lack of sustainability. This paper proposes the concept of the Basic Package of Oral Care (BPOC) as a guiding framework for dental NGO and volunteer activities. The main components of the BPOC (Oral Urgent Treatment, Affordable Fluoride Toothpaste, Atraumatic Restorative Treatment) offer many opportunities for effective, affordable and sustainable activities that aim to improve oral health on the community and population level. Only through a reorientation of dental volunteer services and NGOs towards new roles and activities can a sustained impact on global oral health be possible. Recommendations are given that could help dental NGOs and volunteers in this process of change.

Key words: Global oral health, dental aid organisation, non-governmental organisation, dental NGO, oral health development, volunteer, basic oral care, planning, primary health care, emergency oral care, ART

More than 70% of the world's population, mainly those living in low- and middle-income countries, have little or no access to oral health care. Although oral health is recognised as a basic human right, the lack of appropriate and affordable oral care to more than 4 billion people worldwide does not result in a massive increase of political activity and financial resources to address the problem[1]. A recent study showed that focussing on restorative dental treatment alone to address oral diseases is not a realistic option for most populations[2].

Oral care and Primary Health Care (PHC)

More than 25 years ago, the Alma-Ata conference, organised by the WHO and UNICEF, gave for the first time priority to local, simple curative and preventive care addressing the needs of the population; in contrast to expensive western-oriented health care which remains largely restricted to hospitals and private clinics[3]. Delegating tasks to auxiliaries in Community Health Centres and using simple but effective approaches are important components of primary health care (*Table 1*). During the last few decades, PHC has been the basis of health care in many low- and middle-income countries.

In dentistry however, this change has not been actively pursued, but for a few exceptions. Oral health care remains largely the domain of dentists in private clinics and hospitals in urban areas. Simple oral health care, combined with information and preventive activities for the majority of poor and disadvantaged populations, delivered by assistants or health care workers in the community, rarely became a reality. If oral health

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Table 1 Principles of Primary Health Care (PHC)

Accessibility	Accessibility to essential health services with no financial or geographical barriers.
Appropriate Technology	Technology used and approaches of care should be based on health needs, and appropriately adapted to the community's social, economic and cultural development.
Community Participation	Communities should be encouraged to participate in planning and making decisions about their own health care.
Prevention and Health Promotion	Health systems should focus on helping people stay well instead of treating them when they become ill.
Intersectoral Collaboration	Professionals from various sectors, including the health sector, work independently with community members to promote the health of the community.

played a role in policy frameworks at all, the approaches chosen follow the traditional western curative treatment model using expensive technology and highly trained dentists.

Therefore many health care systems, not only in low-income countries, fail to address the importance of oral health for the individual (in terms of pain and suffering) and public health (in terms of impact on general health and local economies). For example: the number of working days lost worldwide as a result of oral diseases is similar to the number of days of work that are lost due to tuberculosis, anaemia or malaria[4]. In weak low-income economies such effects are closely linked to poverty and can seriously impact on economic development[5].

Some of the reasons for the huge gap in oral health status and availability of oral health care are:

- Low priority for oral health in relation to other diseases
- Lack of professional and political advocacy for oral health and for redistributing resources
- Absence of living conditions and health determinants conducive to good oral health
- Dominance of the restorative approach and western treatment and education models as well as inadequate workforce planning
- Lack of integration of oral care into PHC
- Resistance of the dental profession to delegate tasks to non-dental personnel together with failure to address the problems of quackery
- Services not based on community needs and demands
- The 'inverse care law' – inequitable distribution of services between affluent urban and non-affluent rural areas.

The reality of dental non-governmental organisations

Despite a growing importance of non-governmental organisations (NGO) in the medical and general health sector, which has brought about a new generation of highly professional, socially responsible and financially transparent organisations, the situation in the sector of oral health development assistance is very different[6]. The sector is characterised by the following:

- It is rather small (with an assumed maximum of 500 NGOs operating worldwide)
- The financial resources for the majority of NGOs are very limited
- The degree of professionalism is generally very low (in terms of organisation management, accountability, volunteer training, evidence-based interventions, quality control, evaluation and sustainability)
- Curative approaches based on technical interventions and service provision dominate
- Integration into existing local community structures is often very low
- A lack of coordination, information and technology sharing between the different dental NGOs.

Although organisations and individuals involved are often highly motivated and sacrifice significant amounts of time, money and resources with the best of intentions, the impact and sustainability of such volunteer engagement remains at best very limited. A profound strategic reorientation for the majority of dental NGOs and the volunteers serving for them is long overdue. Their programmes and projects need to be reoriented towards projects that are efficient, sustainable, integrated and accepted by host communities.

The dentist as a volunteer in a foreign country

There are a fairly large number of dentists from the high-income world who are prepared to volunteer to work in a low socio-economic community for a limited period. Their motivations to volunteer may vary but in most cases are rooted in the recognition of need and the desire to help[7]. They seek guidance from NGOs sending volunteers or start projects on their own with the best

of intentions and undoubtedly praiseworthy motives. Unfortunately, many volunteers lack first hand experience in the field and therefore are ill prepared to make a realistic assessment of their own abilities, motives and limitations. Consequently, volunteers fail to address the real needs of their host communities or address them in an inappropriate way by exporting a form of dentistry as they know it from the settings in which they were raised and for which they were trained. Therefore, some basic questions need to be raised in this context:

Who benefits from such volunteer or NGO efforts?

Patients receiving medical assistance certainly benefit, but these patients constitute only a small and almost insignificant section of the whole population. The dentist-volunteer equally benefits from the service rendered because efforts are rewarded with immense satisfaction and increased esteem after returning home. However, the population as a whole does not benefit from these projects in the long run because the health care services offered are merely temporary and not structurally sustainable.

What are the effects at the community level of non-integrated projects using western-style dental approaches?

The indigenous communities very often end up regarding the local health care system, where it already exists, as being inferior in quality. This substantially undermines the community's efforts to find their own solutions to the existing problems. Moreover, such projects devalue the status of local health workers who find themselves unable to meet the community's expectations once the visiting volunteers, who raised such high hopes in the first place, have left the project. Such projects may have a negative effect by creating dependency instead of empowerment. They leave communities with the feeling that local political choices are useless or without impact because resources of the local health care system are in most cases lower than those of the intervening NGO.

Is this form of aid sustainable?

Unfortunately it is not sustainable. The traditional curative approach is too costly to be taken over by local health care systems and fails to address the needs of the majority of deprived communities[2].

Despite these possible serious negative impacts there remains an essential and important role for volunteers and dental NGOs in international oral health. The framework of the WHO-endorsed *Basic Package of Oral Care* could provide guidance and opportunities to NGOs and volunteers for a change towards appropriate, evidence-based interventions and community support with the potential for sustained improvements of oral health.

The Basic Package of Oral Care

The *Basic Package of Oral Care* (BPOC)[8] developed by the WHO Collaborating Centre in Nijmegen, describes a package of basic oral care activities which can be provided within the framework of the existing first line care, the Primary Health Care System. The fundamental idea behind the concept is that the oral care provided meets the basic and most urgent needs of any population served. Toothache is by far the most frequent reason why people seek help[9,10] and therefore the greatest priority should be given to emergency treatment, addressing oral pain and infections. Furthermore, it is essential that a system of preventive care needs to be put in place. The BPOC includes the following three main components:

1. OUT

   Oral Urgent Treatment (OUT) is an on-demand service providing basic emergency oral care. Relief of pain is the predominant treatment demand of under served populations. Emergency oral care that is easily accessible for all should be the first priority in any oral health programme.

   The three fundamental elements of OUT comprise:
   - Relief of oral pain
   - First aid for oral infections and dento-alveolar trauma
   - Referral of complicated cases.

2. AFT

   Affordable Fluoride Toothpaste (AFT) is an efficient tool to create a healthy and clean oral environment. The WHO states that fluoride toothpaste is one of the most important delivery systems for fluoride. The availability and affordability of an effective fluoride toothpaste is essential to every preventive programme.

3. ART

   The Atraumatic Restorative Treatment (ART) approach involves no dental drill, plumbed water or electricity. For dentinal caries, ART consists of manual cleaning of cavities using hand instruments. The cavities and adjacent fissures are filled with an adhesive, fluoride-releasing restorative material, usually an auto-cured glass ionomer. For pits and fissures prone to caries development and those with evidence of early enamel caries lesions, ART sealants can be applied to prevent further demineralisation[11].

The ART approach is consistent with modern concepts of preventive and minimally invasive restorative oral care. Importantly, pain and discomfort are rare during treatment, virtually eliminating the need for an anaesthetic. Since few dental instruments are used, cross infection control is easy to achieve. ART is particularly

suitable for school children and can be provided within a school dental care system. By treating small cavities premature extractions are avoided. However, in health centres and in village health posts, ART is not priority number one, because patients almost exclusively suffer from toothache due to deep caries and extraction is the only possible treatment option under such circumstances.

Implementing the BPOC: opportunities for NGOs and volunteers

The concept of the BPOC provides many opportunities for NGOs and dental volunteers to engage themselves in a structured effort towards better oral health. The implementation of the three components of the BPOC depends on prevailing local factors, including available human and financial resources, existing infrastructures, local perceived needs, treatment demands of the community, their leaders and dental associations. The emphasis for future projects must be on *acceptability*, *affordability* and *sustainability* since all too often previous NGO projects have been inappropriate and often not sustainable once external support has ceased.

In 1975, the American Dental Association stated that "the aim of the volunteer should be to improve the availability of health care on a continuing basis through activities that will have a lasting effect"[12]. Today, there is little to add to that statement – but there are many more opportunities for engagement and activities than just the provision of care.

Volunteers and dental NGOs: what can they do?

In areas where there is absolutely no form of oral care the provision of basic emergency care will always be a great priority. However, the ultimate goal is not to treat as many patients as possible within the fairly short period of the volunteer's stay, but to make a contribution towards the training of local health workers who can continue with the care after the departure of the volunteer.

NGOs and volunteers working with communities in deprived areas should leave their costly and sophisticated equipment and concepts at home and be prepared to provide OUT and ART with limited means since they can be provided with a very limited package of basic instruments[13]. If not, transferring the care knowledge to local health workers within a Primary Health Care system will be problematic if not impossible. As outlined in the BPOC, this does not mean the promotion of primitive or second-rate dentistry (an argument sometimes heard) but rather the conscious reduction to a modern, realistic and appropriate care concept that meets the needs of communities that are lacking resources.

Depending on the situation, some limited restorative treatment might be desirable. This care will also have to be provided within the context of what local health care workers are capable of undertaking. ART is the only option in such a situation where there are no resources (electricity, clean water, facilities). The basic philosophy of any care introduced should be that a continuation by local health care workers is possible. This implies also that the type of care fits in the existing health care system.

An example of sustainable NGO and volunteer involvement could be the training and supervision of health workers, who can be trained to provide OUT effectively and safely following less than one month's intensive coaching[14]. However, training of health workers in OUT is only justified if there is a functioning Primary Health Care system in which the health worker can subsequently work with the acquired OUT skills. There also needs to be a referring network for cases beyond the health worker's capabilities. Once the training has been completed it is imperative for a local dentist, a volunteer or an NGO to carry out regular evaluation visits. These visits are needed to monitor the health worker's activities, the service performance and to make changes where necessary. These regular visits prevent the potential danger that health workers may undertake activities beyond their professional limitations. NGO activities of this type contribute to strengthening local health care systems and have a much higher long-term impact. It is self-evident that this type of NGO and volunteer involvement is possible only with close cooperation with local communities, government administrations and other relevant organisations[15]. It can be assumed that this type of support is equally rewarding, if not more so, than returning home with impressively high records of teeth extracted.

In the context of training, some NGOs have produced training packages for local health care workers. One example here is that of training videos on infection control in health posts and dental clinics, produced in collaboration with the Organisation for Safety and Asepsis Procedures (OSAP) and the U.S. Centers for Disease Control and Prevention[16]. Similar training packages could be developed or at least funded by NGOs to the common benefit of other NGOs and volunteers.

Another example of the most successful form of NGO and volunteer activity is advocacy work. A few NGOs have already started with this type of activity and the lobbying for affordable and appropriate fluoride use could be among the issues worth exploring. Recent reports from Nepal[17,18] and Burkina Faso[19] highlight the impressive and encouraging public health achievements that are possible.

Conclusion and recommendations

A reorientation of dental NGOs and the volunteers working for them is needed in order to increase the impact of that sector in international oral health. Critical discussions, honest evaluation and organisational change are difficult tasks for any organisation, and maybe even more so for value-driven non-profit organisations. Oral health has been recognised as a basic human right and the overall guiding principle should be the achievement of optimal oral health for all[20,21]. NGOs and their volunteers can be important contributors to this aim if they choose appropriate interventions and activities.

However, many NGOs are not well prepared for change due to their organisational history, the people involved, their stakeholders or for many other reasons. Following earlier recommendations[6] dental NGOs need to:

- Constantly increase professionalism by rethinking approaches applied and monitoring achievements
- Adopt policies that are addressing the community needs and demands in an effective, affordable and sustainable manner
- Consider the Basic Package of Oral Care as a framework for such approaches
- Strengthen quality assurance and accountability to be trustworthy partners for both donors and host communities
- Be open to collaboration and active support from other NGOs, governments, dental science, WHO and the FDI.

Dental volunteers should critically ask themselves about their motivation and should choose an NGO that works on the basis of proven public health principles and track record, or they should seek guidance from experts when setting up their own project[22].

The FDI and other international organisations need to continue their essential work in reducing barriers that deprive communities from their basic human right of oral health. Only through a fundamental reorientation following the principles outlined in the Basic Package of Oral Care, will dental NGOs and dental volunteers become trustworthy partners for governments, donors and other agencies in strengthening weak health care systems and in addressing oral health needs effectively. In facing this challenge dental volunteers will need full support from the dental profession, dental science and society as a whole.

The book *Basic Package of Oral Care* in PDF format is available from the WHO Collaborating Centre website (www.whocc-nijmegen.nl)

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