Evaluation of dental services provided in an outreach clinic in a Nepalese village
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The 4th year elective project presented a fantastic opportunity to do something I had always wanted – to practise dentistry abroad on people in need. In Nepal, 40% of the population live in poverty, and their dental care needs are not met. Dental professionals tend to cluster in urban areas, leaving the large portion of the population who live in rural areas with little access to care. A further problem is that 90% of dentists work privately (too expensive), and the public sector (6% of dentists) is oversaturated and underfunded.

The Work the World organisation (WTW) set up a basic temporary two-week dental clinic in the remote village of Dandakharka in Nepal that would not ordinarily have access to dental care. Fourteen senior dental students screened and treated the 902 villagers that visited the clinic for free, providing screening, treatment planning, extractions, restorations, scaling, and oral hygiene instruction with toothbrushes and paste.

The aims of the elective project were:
1. To record the types of treatments provided to the patients attending the dental outreach clinic;
2. To evaluate the quality of the dental services provided (screening, diagnosis and treatment);
3. To evaluate the benefit of the presence of the dental clinic both locally and nationally.

The majority (43%) of clinical procedures completed were extractions, which provided immediate and definitive pain relief. Restorations followed close behind, totalling 36% of clinical procedures. Preventative treatment took up only a small fraction of procedures (scaling and fluoride application). However, due to the time constraints of the clinic and the large number of patients attending, of the 3909 treatments that were clinically indicated during the screening process, we were only able to complete 1222 (31%). It poses a question that cannot easily be answered: which is more beneficial, to screen a large number of patients and treat only a small portion of each individual’s needs, or limit the screening to a smaller number and see to all their treatment needs?

Evaluation of the quality of the dental services provided was extensive, so only main points are summarized:
The screening facilities were very basic – a chair, translator, mirror, probe and torch. Caries detection was straightforward in obvious gross caries and swelling, but fissure and interproximal caries were hard to diagnose (no air spray or X-rays), causing us to rely on visual and tactile detection.

Treatment planning in the patients’ best interests proved problematic. Many refused extractions because of anxiety, claims of “weakness”, and the local belief that losing a tooth will damage their hearing and vision. Many also refused treatment unless they were currently in pain – despite high infection risks.

We provided a good range of dental restorations (GIC, amalgam, composite). Interestingly, where moisture-control was impossible and aesthetics unimportant, amalgam powder was mixed with GIC to hopefully combine the strength of the amalgam with the adhesive and fluoride-releasing properties of GIC – common practice among Nepalese dentists. It was not feasible to provide root canal treatments at the clinic, so when pulpal exposures occurred and patients subsequently refused extractions, the teeth had to be restored/temporised to appease the patients, albeit risk of future problems.

Although pre-operative radiographs would have been ideal for extractions, we managed very well without and only a small proportion of extractions proved difficult (requiring bone removal). A limitation of this clinic is that the incidence of complications is unknown and we cannot follow up patients and provide treatment accordingly.

The greatest benefit of the presence of the dental clinic to Nepal locally and nationally was the boost to the national economy generated from the tourist activities and travelling of students before or after working at the clinic.

The future oral health of the villagers was an issue. Although oral hygiene instructions were given to everyone, patients need repetition and follow-up to modify their behaviours. Some oral health promotion
techniques could have been taught to the village healthcare workers so that they could help prevent diseases arising in the future.

Overall I found the experience of a third world country both exhilarating and overwhelming. Some areas were polluted, crowded, and dilapidated, but others were of outstanding natural beauty. I am privileged to have been able to travel to that area of the world, and proud that I was able to provide free dental treatment to people in great need of it. The villagers of Dandakharka made us feel welcome, and enjoyed watching our attempts to plough their paddy fields and plant rice at the weekend!

Despite the short duration of the clinic and suboptimal operating conditions, we made the best of the facilities available and managed to address the dental health needs of 902 patients and performed 1222 clinical procedures between the 14 of us. We also gave detailed feedback to Work the World to improve their future projects.

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