

An assessment of orthodontic treatment need and its provision in Kathmandu, Nepal

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In August, we travelled to Nepal to carry out our elective project. We started and finished our trip in the capital city, Kathmandu, taking the time before our elective placement began to go trekking in the Himalayas and explore the city.

On our very first day in Kathmandu we came across a street in the city centre which was almost entirely made up of tiny one-room dental practices that encouraged business through bizarre window displays including acrylic teeth, piles of extracted teeth and old dentures. This made us extremely curious to find out what our experience of dental care would be like in Nepal. At the end of the street there is a shrine to the Newar toothache god, Vaisya Dev. It is believed that if you nail a coin to the shrine your toothache will go away. If this doesn't work there is always the local dental shops for an extraction!



One of the dental practices on 'dentist street' Kathmandu displaying their acrylic teeth selection

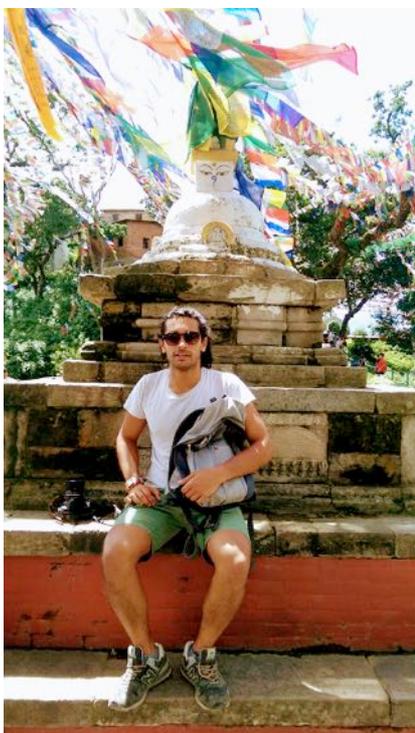


Shrine to the toothache god- the number of coins showing the high dental need in Kathmandu!

During our trek in the foothills of the Himalayas we travelled to villages currently only accessible by foot or mule. It was monsoon season so there were very few other people trekking at that time which meant we experienced a true sense of rural village life. When the clouds cleared on day three we had our first

mountain view of the Annapurna range. It was breathtakingly beautiful and we were very lucky as for the remainder of our trek the sky remained clear and sunny for us to enjoy the views.

Whilst trekking we spent one evening in a lodge with our guide and the lodge owner, giving oral hygiene advice over a drink of the local spirit 'raksi'. They were shocked and alarmed to learn that we use electric toothbrushes in the UK, which they previously had not heard of and were extremely excited to find that we had one with us and see a demonstration of it in use!



Exploring the monkey temple, Kathmandu



Dressed in the traditional Gurung style

During our placement we split our time between a dental practice with a special interest in orthodontics and the local dental hospital. This gave us two very different insights into the provision of dental care in Nepal. The dental practice, whilst extremely modern by Nepalese standards, still had some surprising quirks. For example, instead of using a plastic film holder to take intra oral radiographs, the nurse would hold the film in place. The dental hospital itself was very different to the BDH, with no dental nurses to assist and the challenge of frequent power cuts mid treatment! However working with the dental students reminded us very much of day to day clinic in Bristol.



The colourful wildlife in Nepal even extended into the garden of our hostel in central Kathmandu

We gathered a good amount of data for our elective project through dental examinations carried out by us at both the dental practice and dental hospital.

The aim of our elective project was to discover more about orthodontic treatment in Nepal, how it differed from the orthodontics that we have experienced in the UK and the orthodontic treatment need of the Nepalese population. We were also interested to see how the practice itself was different for the practitioner. We used an index that is commonly found in the UK, the Index of Orthodontic Treatment Need (IOTN) to assess patients and with the help of Nepalese natives asked patients about orthodontic treatment they may have had or were planning to undergo.

We managed to examine 87 patients. 57 of the 87 were undergoing orthodontic treatment. The most commonly recorded malocclusion was displacements (d) and the least common were submerged teeth (s) and reverse overjet (b). No participants in the study were observed to have an IOTN score of (p) cleft lip and palate defects, (t) partially erupted teeth, tipped and impacted against adjacent teeth or (x) supplemental teeth. 68.9% of patients observed fell into the grade 4 and 5 category, meaning that they had a great or very great need for orthodontic treatment. Only 10.3% had no clinical treatment need. All patients found to have a very great need for orthodontic treatment (IOTN category 5) were undergoing orthodontic treatment. Various limitations in the scope of study prevent generalisation of the results to a wider population and further studies in the area could help unearth stronger trends in the Kathmandu population.



One of the bustling street markets of Kathmandu



Colourful courtyard tucked away from the teeming streets

We had such a fantastic, enriching experience in Nepal and both felt like it was one of the most beautiful countries we had ever visited! The scenery, the culture and most importantly the people were all amazing. We would like to thank the Bristol Dental Alumni Association for helping us to make the most of our trip, we are so grateful for your help!