

The Provision of Dental Care in Cusco, Peru

Ashni Shah and Saadia Ikram



It was the summer of 2013 when we finally got the opportunity to do dentistry abroad. It was something we always wanted to do. We chose Peru because its rich historical culture and vast landscapes always fascinated us. Although both of us had reasonable travelling experience, neither of us had visited South America. In addition,

this experience would give us the opportunity to learn Spanish, one of the most widely spoken languages in the world.

After choosing the destination, there was a lot of planning involved including finding the best deal on flights, reading up on the country and, of course, organising our travels after we finished the dental aspect of our trip in Peru. The organisation which assisted our elective project is called Mundo Verde, a charitable establishment located in Cusco. They take on volunteers from around the world to help them carry out various projects such as the dental outreach project we participated in, but also areas in medicine and conservation work in the Amazon rainforest. What we particularly liked about this organisation was not only its passion to help the less privileged citizens in their country but also their main goal which was to conserve the Amazon rainforest. A lot of the money we paid went towards this project and we thought this was important since the Amazon provides approximately 20% of the Earth's oxygen.

The aims of the elective were to observe and then appraise the provision of dental care in Cusco and to add to our skillset of experiencing dental practice in a less developed environment than what we practise in the UK. Mundo Verde had arranged a two-week timetable for us. The first week included observation in a government-run dental clinic, allowing exposure to dental healthcare service in Peru and close observation of local dentists. The second week involved visiting a school in a rural area as an outreach project to provide basic dental care to the school children. Because the students came from poor families, the organisation also provided lunch as part of their service.

The government-run dental clinic, Siete Cuartano, is situated in Cusco city centre. It is funded by a government scheme which serves basic dental facilities to the local public who are unemployed or of a low income. The dental clinic was based in a single room, within a larger clinic that encompassed other areas of healthcare. The conditions were

very basic, with limited instruments and equipment available. The dental unit consisted of a high-speed handpiece but no slow-speed handpiece or suction. The majority of the patients presented with pain and, as well as observing, we were given the opportunity to carry out some treatment ourselves. Like in the UK, pain and infection are addressed first; with the treatment plan formed accordingly. At the clinic, the clinicians were only able to carry out basic restorations or extractions, so the patients were given the option to either have the tooth extracted or be referred to an endodontic specialist for root canal treatment. The decision made by the patients was fundamentally determined by the cost.

Despite the use of basic resources and limited treatment, we found that the overall principles of practising dentistry were similar to that in the UK. It was interesting to practise dentistry using basic facilities and it made us realise that treatment is more than adequately possible with the limited equipment that was available. However, it is less comfortable for patients and interruptive for the dentist. Because we did not visit a private clinic, we are not able to comment on what equipment is used there for dental treatment.

The second week was spent at a school located in the rural areas of Cusco, in a district named Santiago where the children have a high prevalence of caries. The outreach project involved charting, diagnosing, treatment planning and treating children aged five to eleven, with supervision by a local dentist. Communication with the children was in Spanish which we began to learn before embarking on the trip as well as during the trip with the help of a Spanish teacher. An Android application was also useful in teaching us specific Spanish dental terms. We were provided with a classroom which we set up ourselves and each class was seen individually. The teeth were charted and a diagnosis was made from mere clinical assessment, which was either restorable caries or unrestorable caries - a treatment plan was constructed accordingly. Due to the limitations, the treatment undertaken involved the Atraumatic Restorative Technique (ART), whereby hand instruments were used to excavate the carious tooth tissue followed by the placement of glass ionomer cement in the cavity. Grossly carious teeth were extracted under local anaesthesia, and oral hygiene instructions were given in Spanish. To help the children remember the oral hygiene instructions



Ashni and Saadia treating children at the school

we created a leaflet in Spanish for them to take away with them. Carrying out extractions was difficult as not only were there practical limitations but for many children this was the first time they were exposed to a dentist and therefore an extraction with administration of local anaesthetic at their first visit could have instilled some dental phobia.

The week spent at the school was the most practical and rewarding aspect of our elective. This is where we faced the most challenges regarding limitations in equipment, dealing with a poor community and the language barrier. It made us realise that behaviour management is a key aspect in managing child patients to create a rapport and prevent dental phobia.

Our aims to increase dental awareness in the rural community of Cusco and help to reduce the level of disease in these children were met, as well as to experience dentistry in a foreign country. Our personal aims were also met, as we experienced a unique and valuable opportunity delivering dental care and raising awareness for those who required it in a country more than six thousand miles away from home; even if it was on a small scale, it was still rewarding. This experience has given us a desire to continue to volunteer our dental services in the future, once we are qualified dentists and able to fund our own trips.

We would like to thank Professor Jonathan Sandy, Maria Davies and Pablo Miranda for their guidance and support with this project. We would also like to thank Bristol Dental Alumni Association for their financial contribution and TePe dental company for providing us with toothbrushes which we handed out to the children.