

# Current Scenario of Pediatric Dentistry in Nepal

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Nepal is a beautiful country but the burden of oral disease is very high and the worst hit group is the pediatric patients due to lesser number of Pediatric dentists, geographical factors, lack of awareness among the parents about the oral health of children, ignorance of general dentist's towards child oral care and lack of appropriate use of oral health policies and programs in the country. Limited literatures exist regarding oral health problems; despite its major presence, mostly hitting the children.<sup>1</sup>

Pediatric dentistry is the specialty that imparts primary and comprehensive, preventive and therapeutic oral health care for infants and children through adolescence, including those with special health care needs.<sup>2</sup> On the contrary, 34% of the Nepalese population is in the age group of 0-15 years,<sup>3</sup> which reflects that there is a greater demand for Pediatric dentists in Nepal. The total number of registered Nepali dentists was 1803 with 419 specialists until June 2015 and only 0.9 percent were Pediatric dentists who provided pediatric oral health care in Nepal.<sup>4</sup> Currently in the year 2020, we have 32 Pediatric dentists working nationwide and the number is not adequate to provide quality and quantity service to children of Nepal.

Most of Pediatric dentists graduated from India and China. Post Graduation program started in 2011 at BPKHIS, Dharan Nepal and in 2018 at People's Dental College and Hospital (TU). From 2020, we will be seeing a rise in the number of residents from an initial number of 2 to 6 every year from colleges- BPKHIS, People's Dental College and Hospital, Kantipur Dental College and Hospital and Kathmandu University School of Medical Sciences, Dhulikhel.

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The dentist-population ratio is decreasing exponentially in capital and major cities, where about 60% dentists are working in Kathmandu valley and more than three-fourth were employed in private sector however, it remains very high in rural areas of Nepal.<sup>4</sup> The dentist population ratio in Kathmandu was 1:9000 and outside valley it was found to be 1:56,000.<sup>5</sup> National Oral Health Policy also has come up with the strategic plan to recruit dental service at district and PHC level<sup>5</sup> but due to less manpower in Pediatric dentistry it's not adequate enough to reach out nationally. Thus, Government and private sectors should provide more opportunities and funding if possible to increase their number.

Pediatric dental practice in Nepal is changing due to lot of technical and dental material growth globally. Smart technologies and gadgets like televisions/screens on the ceiling, virtual reality goggles, headphones and smart phones are being incorporated in clinical practice for behavior management or to share oral hygiene information's and treatment-planning with entertainment and fun for children and parents. Newer dental materials and techniques like Silver diamine fluoride (SDF) to arrest the caries, resin infiltration techniques, conscious sedation by nitrous oxide, Laser, rotary endodontic instruments on primary teeth, pediatric crowns like strip crowns, stainless steel crowns, edelweiss crown, zirconia crowns are already available and are in frequent practice by Pediatric dentists in Nepal. They are incorporating newer materials and technologies for making the children more comfortable, less anxious and cooperative while receiving the dental treatment. Pediatric dentists are the privileged group who work for special need patients and are doing their best to provide the services from their respective working zones. Kantipur Dental College in Kathmandu even has a "Special Need Care Center" specially designed to take care of special needs children by the Pediatric dentists. Pediatric dental patient are also worked by administration of Office-based Deep Sedation/General Anesthesia when required by the licensed Anesthesia provider along with

Pediatric dentist and dental assistant trained in pediatric advanced life support (PALS).

Pediatric dentistry has drastically taken a leap to reach out and be known publically in a decade, though lesser in number they are enthusiastically working hand in hand with adequate knowledge and skill to provide safe, effective, and evidence-based oral health care for children. Nepalese Association of Pediatric Dentistry (NAPD) has been working since its formation in 2016 by conducting lots of conferences, CDE and workshops for exchanging information, knowledge and skills nationally/internationally. Journal of Nepalese Association of Pediatric Dentistry is starting from 2020 with this first issue to sail on to the research venture in evidence based practice. The American Academy of Pediatric Dentistry Strategic Plan 2020<sup>6</sup> has come out with every guidelines and Pediatric Dentistry in Nepal will be following it in the coming days too for upliftment of the dental scenario in Nepal.

Most of people are lacking in education, knowledge and awareness in general and oral health care. The importance of deciduous teeth, exfoliative timing and the care needed for the developing occlusion of both primary and permanent dentition is not being recognized among parents. Dental caries in children hits their nutritional status and growing ability<sup>7</sup> as well as it gives negative impact on school attendance and performance.<sup>8</sup> Parents lack of education and awareness, low income, inaccessibility to oral health services has deteriorated children's oral health care. Thus, Oral health programs must be organized to educate parents in every area of the country to provide dental health education regarding first dental visit, infant oral health care, breastfeeding and weaning, anticipatory guidance, diet counseling, preventive approaches, tooth eruption/shedding, early childhood caries, etc. Emphasis on parent counseling should begin during pregnancy only. Integrated school health oral programs in active coordination and collaboration with education authorities should be encouraged, promoted and funded to reach a large number of children in their early stages of development. The scarcity of health posts and dentists in rural areas along with a lack of education and low income among the population has lead to lack of awareness as well as inability to access oral health services for people and their children.

Children's dentistry deals with child psychology where child's feelings, their confidence and trust plays a vital role to develop a positive attitude towards future dental care. This whole act is both tedious and time-consuming

and most practicing general dentists don't give much preference to this act while treating a child. Pediatricians are usually the first ones to encounter child during their routine check-ups and while opening their mouth the oral hygiene can be assessed but due to lack of knowledge and awareness about the oral hygiene status and the importance of deciduous and permanent dentition in general well being of an individual they fall behind in the scene for referral. General dental practitioners and pediatricians should be made more aware of the importance of primary and permanent dentition, oral health care and appropriate recommendations and referral to Pediatric dentists when needed so that specialized dental care can be achieved by the child on time.

Oral Health Policy of Nepal<sup>5</sup> has more than half of the health budget allocated to oral and mental health for the year 2018/2019<sup>9</sup> but it has not been brought into existence in full swing. Nepalese Association of Pediatric Dentistry needs to be playing a great role in this division by lobbying with targeted and well tailored oral health programs and policies for child oral health care. A well implemented national oral health policy addressing the concerns of all target groups with specific funding for oral health is the need of the hour.<sup>5,9,10</sup> There should be an increase in public and governmental awareness and education regarding pediatric oral health through news, public messages and media reaching to every part of the country.

The oral disease burden in our country cannot be decreased immediately but attention should be brought about to access the barriers and multiple approaches, addressing, planning, working and changes, need be brought by Government, policy makers, contemporary practitioners, academicians, general dental practitioners, pediatricians, NAPD and the concerned authorities of our country for improving the child oral health condition in Nepal. The imbalance between the rural and urban dentists can be improved by increasing health service posts and job opportunities in rural areas by the Government of Nepal. More researches for oral disease prevention and evidence based must be carried out. Access to appropriate oral health care for all children and persons with special health care needs should be taken up. Shortage of Pediatric dentists needs to be addressed and their number increased by more production of these manpower from Government or private colleges as they are most needed health professionals for oral health care of child as children are the bright future of any nation.

**Conflict of Interest:** None

**INAPD**

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