

Orthodontics in Nepal

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Introduction

- No long history.
- Before 1990:1
- Limited to removable and functional appliances.
- Indian orthodontist used to visit Kathmandu regularly.
- Few Nepalese used orthodontic services from nearby Indian cities.
- Specialised orthodontic services by Nepalese orthodontists started in 1990.¹
- With time,
 - -The number of orthodontists and the services provided by them are increasing.
- Orthodontic treatment is popular among the general public.

Aim: To find out the state of orthodontics in Nepal.

Objectives:

- To find out the prevalence of malocclusions and the need for orthodontic treatment in Nepal.
- To find out the number of orthodontists in Nepal and their service area.
- To compare the cost of orthodontic treatment with the living standard of Nepalese people.

Materials and Methods

Malocclusion prevalence and the need for orthodontic treatment was assessed from past studies. Information regarding Nepalese orthodontists was obtained from the Nepal Medical Council (NMC), the Orthodontic and Dentofacial Orthopedic Association of Nepal (ODOAN) and through personal contacts.

Results

- Malocclusion prevalence (73% 90.4%).²⁻⁴
- Among those with malocclusions, 46% have an extreme or severe need of orthodontic treatment.⁴
- Number of orthodontists^{5,6} NMC registered = 74
 - ODOAN registered = 40
- Orthodontists are centred in capital and major cities. (Fig 1)

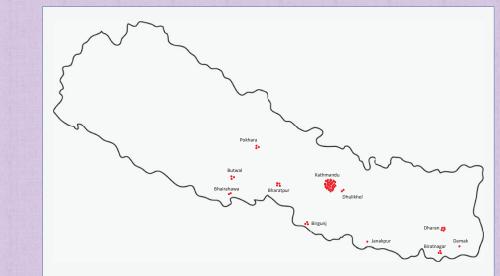


Fig.1. Distribution of orthodontists in Nepal

- The cost of orthodontic treatment is \$220 \$1000
- Per capita income of Nepalese is \$698.30.7

Discussion

- Population of Nepal is 26,494,504.⁸
- In absolute numbers, nearly 10 million Nepalese have an extreme or severe need of orthodontic treatment.
- The optimum number of patients an orthodontist can treat at a time is 100.9
- 74 orthodontist can treat only 7400 patients at a time.
- The minimum cost of orthodontic treatment is nearly one third of the per capita income of Nepalese, whereas the maximum charge even exceeds it.
- Orthodontic treatment requires frequent follow-ups and long treatment time, making it difficult for patients from rural areas.

- Information on the Nepalese living standard was obtained from World Bank data.
- Cost of orthodontic treatment was obtained from price chart of various hospitals/clinics.

Conclusion

Although orthodontic services are urgently required, people are unable to afford them due to low socioeconomic status as compared to treatment costs.

Most of the orthodontists are concentrated in the major cities, with difficult access for people residing in rural areas.

References

- . Shrestha RM. Nepalese history of orthodontics. Orthodontic Journal of Nepal 2011; 1(1): 10.
- 2. Shrestha BK, Yadav R, Gyawali R, Gupta S. Prevalence of malocclusion among medical students in Institute of medicine, Nepal: a Preliminary report. Orthodontic Journal of Nepal 2013;1(1):24-27.
- 3. Shrestha BK, Yadav R, Basel P. Prevalence of malocclusion among high school students in Kathmandu valley. Orthod J Nep 2012;2:1.
- 4. Singh VP, Sharma A. Epidemiology of Malocclusion and Assessment of Orthodontic Treatment Need for Nepalese Children. International Scholarly Research Notices 2014;2014.
- 5. Personal communication. Dr. Prakash Parajuli, member of Nepal Medical Council (NMC).
- 6. Personal communication. Dr. Dashrath Kafle, Treasurer of Orthodontic and Dentofacial Orthopedic Association of Nepal (ODOAN).
- 7. World Bank data 2014 http://data.worldbank.org/indicator/NY.GDP.PCAP.CD
- 8. National Population Census 2011. Central Bureau of Statistics, Government of Nepal.
- 9. JCO INTERVIEWS Fred F. Schudy, DDS, on the Vertical Dimension 1992; 26(8):462-472.