International Journal of Community Medicine and Public Health
Bhatnagar N et al. Int J Community Med Public Health. 2014 Nov;1(1):44-47
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: 10.5455/2394-6040.ijcmph20141109

Research Article

Inequity in dental care utilisation: what gets delivered gets known - evidence from Chandigarh and Haryana

Nidhi Bhatnagar[1], Atysha Mohindroo[2], Himbala Verma[3], Arun Kumar Aggarwal[4]*

[1]Department of Community Medicine, Assistant Professor in Army College of Medical Sciences, New Delhi, India
[2]Volunteer, Chandigarh, India
[3]Consultant, NHM, Chandigarh, India
[4]School of Public Health, PGIMER, Chandigarh, India

Received: 30 October 2014
Accepted: 12 November 2014

***Correspondence:**
Dr. Arun Kumar Aggarwal,
E-mail: aggak63@gmail.com

ABSTRACT

Background: Studies till date have focussed on the prevalence of dental disorders and the related health seeking behaviour. Inequity in seeking dental health care is debated based on age, wealth and education. This study focussed on geographical inequity in awareness and treatment seeking for dental health care.
Methods: Paper compares awareness for dental problems and related treatment practices of rural population of a district in Haryana with rural area of adjoining union territory Chandigarh.
Results: In rural Chandigarh, more than 90% knew about dental caries and dentures, whereas, in rural Haryana only 50% knew about dental caries and 70% about dentures. Knowledge about gum problems, mal-alignment, and growth of plaque was low. Knowledge about scaling, and root canal treatment was low in both rural areas. Majority of subjects (66.7%) attending health camp in rural Haryana never underwent a dental check-up, compared to 41% in rural Chandigarh. In rural Haryana, commonly available dental services are extractions and filling, whereas, Chandigarh has wider spectrum of services available.
Conclusions: Poor awareness of dental morbidity, treatment practices and treatment seeking is possibly linked to the availability of the services. Overall, penetration of newer treatments for dental health care in the community has been slower and more so in the rural areas.

Keywords: Oral health, Dental caries, Community dentistry, Public health dentistry

INTRODUCTION

Oral health is an essential component of overall health and well-being of an individual. Poor oral health and untreated oral diseases can significantly impact quality of life at every stage. Early diagnosis, preventive treatments and early interventions can prevent or halt the progress of most oral diseases - conditions that when left untreated can have painful, disfiguring and lasting negative health consequences.

Dental problems affect all age-groups. Prevalence of Early Childhood Caries (ECC) in Bangalore was 40% in children of 3-5 years of age[1] and 27.5% among children in 8-48 months of life.[2] Studies have highlighted high burden of dental caries in elderly, 83.6% and 82.3% for 2000-2004 and 2005-2009, respectively.[3] Studies have also shown rural-urban differentials. Prevalence and severity of dental caries was higher among children (6-14 years), in urban areas whereas the oral hygiene levels were poorer among children in rural areas of Calcutta.[4]

Despite high prevalence of various dental problems, treatment seeking practices continue to remain poor. This might result due to poor availability and accessibility of dental care services, financial constraints to pay for

dental care treatment or simply because of poor awareness to seek dental care services at appropriate time.

In this article we explore existing geographical inequity in awareness of dental problems and oral health care practices in rural areas of Chandigarh and Haryana.

METHODS

Study area

Community health centre Raipur Rani of district Panchkula, Haryana, rural and areas of Chandigarh.

Study design

Cross sectional survey in a health camp setting at Raipur Rani and population based survey at Chandigarh.

Sample size

A total of 57 subjects were interviewed in camp setting and 102 persons were interviewed in population based survey.[5]

Study tool administration

All persons were interviewed using semi-structured questionnaire. Questions were asked to assess their knowledge regarding awareness of dental care problems and dental treatment seeking practices.

RESULTS

Of 57 persons interviewed in camp, 17 (29.8%) were males and 40 (70.2%) were females. Mean age was 35.4 years. In rural Chandigarh, 48 (47.1%) males and 54 (53%) females were interviewed and mean age of the respondents was 38 years. Overall there was greater awareness for dental caries and gum problems in the rural areas of Chandigarh as compared to rural area of Haryana. More than 90% knew about dental caries in Chandigarh, whereas, only half of the camp attendees in Haryana, knew about this problem. More of rural Haryana respondents compared to Chandigarh respondents reported that sensitivity to hot and cold is a problem. Awareness about mal-alignment and growth of plaque was very dismal at both places.

Regarding awareness of dental practices majority of subjects (92%, 70%) in Chandigarh and Haryana respectively, were aware of dentures or artificial tooth, followed by dental extractions in 77% and 54% cases respectively. Significantly more subjects in Chandigarh were aware of other dental treatment services (Fillings, scaling, root canal treatment) as compared to those in Haryana. However, overall awareness about processes such as root canal treatment and scaling was very low in Haryana compared to Chandigarh (Table 1).

Table 1: Awareness about dental diseases and treatment practices in rural Haryana and Chandigarh.

	Health camp (N=67) n (%)	Rural Chandigarh (N=102) n (%)
Awareness about dental diseases		
Dental caries	29 (50.8)	94 (92)
Sensitivity to hot and cold	25 (43.8)	22 (22)
Gum problems	18 (31.5)	74 (72.5)
Mal-alignment	3 (5.2)	5 (5)
Growth/plaque(E/L)	1 (1.7)	2 (2)
Awareness about dental treatment		
Dentures	40 (70)	93 (91.2)
Extraction	31 (54.3)	69 (68)
Fillings	25 (43.8)	90 (88)
Scaling	5 (8.8)	65 (63.8)
Root canal treatment	4 (7.0)	24 (24)

Earliest age for subjects visiting dental clinic was two years and oldest age was 60 years. Sixty seven percent respondents in rural Haryana and 41% in rural Chandigarh never had dental check-up. Dental health care practices were inquired from the health camp attendees of rural Haryana. Brushing once a day was regular practice of nearly three-fourth respondents. Only 8(14%) subjects never brushed their teeth till date. Addiction to tobacco products like bidi and zarda in the study subjects was very low (5.3%, 1.7%) and nearly half of them (47.4%) were aware about oral cancers.

DISCUSSION

This study documents community awareness of various dental problems, and their dental care practices and related health service utilisation in two different populations of rural Chandigarh and Haryana in different time periods. Whereas, Chandigarh is a union territory with network of dispensaries and hospitals at convenient distances, Haryana is a state with districts having a network of sub-centres, Primary Health Centres (PHC), community health centres and hospitals as per the population norms. PHC is the first level of health centre for a population of 25-30000 where dental health care services are available.

Subjects from rural Chandigarh had greater awareness about dental problems compared to subjects attending health camp in Haryana. It is worth noticing that two different study designs were used in these two populations at two different time periods. Household level survey was done in Chandigarh during the year 2008, whereas, health camp attendees were interviewed much later in the year 2013 in Haryana. It may be argued further that health camp attendees are likely to exhibit greater awareness compared to the general population and also that knowledge levels are expected to increase with

the passage of time. Furthermore, Raipur Rani block of Haryana, where the respondents were enrolled in the health camp is from one of the forward district of Haryana. Thus actual knowledge gap in these two populations of Chandigarh and Haryana is likely to be significantly more than documented in the paper.

Awareness of people about dental problems can be associated with their dental health care utilisation experiences and consequently dental health of the society. We observed that the differential knowledge levels in Chandigarh and Haryana were also reflected in the dental care utilisation. Whereas, about one-third respondents had never visited a dentist in Chandigarh population; more than double of this never visited a dentist in Haryana. Furthermore, most of the knowledge in both Chandigarh and Haryana was for dental caries and dental pain. This was also supported by the observations that the respondents' knowledge for dental filings and extractions as mode of treatment, was relatively high. It seems, that interventions for retaining the teeth like root canal treatments, have not percolated down to the population in both Chandigarh and Haryana. The fact that knowledge of the respondents about dentures was high further supports our argument. As incidence of dental caries is high, the population opts for extractions and in the end dentures are the only option. Even in a city like Chandigarh newer treatment practices e.g. Root Canal treatment and scaling are less prevalent in the community.

This geographic inequity in knowledge and practices is likely to be due to availability of the dental care services. In Haryana, the commonly available dental care services in the public sector at PHC and CHC level are extractions, and fillings. Denture services and Root canal treatments are not common. Scaling is largely an urban phenomenon. Private dentists are also not common in rural areas. On the other hand, all dental services are commonly available in Chandigarh and is accessible to both rural and urban Chandigarh.

Others have documented inequities with respect to age, income and education. Vikum et al. (2012) from Norway found that pro-rich and pro-educated inequity is a public health challenge mainly in the older part of the population.[6]

In Chandigarh population, 34% respondents did not contact a dentist despite having a problem in last one year, and 45% of them did so as they did not consider this dental problem as important problem[5]. Perception of no need thus seems to be important impediment in utilisation of dental care. Roberts et al in 2011 from Adelaide, conducted a follow up study and found that 30% of infrequent visiting was attributed to reporting no need for dental care, and 17% to difficulty paying a dental bill. Need and affordability factors were more important than general health behaviour factors in influencing use of dental care by a cohort of young adults.[7] Maharani et al. 2012 from Indonesia on the other hand noted that the use of dental care services is more dependent on ability to pay than on the need for care.[8] An interventional study to educate antenatal mothers about the consequences of bad oral health did improve the dental care utilisation practices showing that perceived need is indeed an important factor associated with dental care utilisation. Researchers found that despite the fact that 60% mothers had some dental problem, 67% considered their oral health status as good, and only 29% of the mothers visited the dentist.[9] In addition to age, income, employment and education, it was observed that visiting a dentist was also associated with the use of a car or a means of transport.[10] Transport facilities are required to reach the dental care facilities especially by the elderly who are affected the most. In India there is a revolution going on for making free ambulance service available for maternal and child care. However, such services are missing for the elderly patients who need to visit health facilities for varied reasons.

CONCLUSION

This paper highlights the inequity in awareness of dental health problems and healthy practices in populations of Chandigarh and Haryana. It seems, that awareness is linked to the availability of the services. Dental health is still neglected by most in the present day society. Poor awareness of healthy practices and treatment seeking is suggestive of the same. Even with the advancement of technologies, penetration of newer treatments for dental health care in the community has been slower.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the institutional ethics committee

REFERENCES

1. Singh S, Vijayakumar N, Priyadarshini HR, Shobha M. Prevalence of early childhood caries among 3-5 year old pre-schoolers in schools of Marathahalli, Bangalore. Dent Res J. 2012;9(6):710-4.
2. Subramaniam P, Prashanth P. Prevalence of early childhood caries in 8-48 month old preschool children of Bangalore city, South India. Contemp Clin Dentistry. 2012;3(1):15-21.
3. Srivastava R, Nongkynrih B, Mathur VP, Goswami A, Gupta SK. High burden of dental caries in geriatric population of India: a systematic review. Indian J Public Health. 2012;56(2):129-32.
4. Subrata S. Prevalence and severity of dental caries and oral hygiene status in rural and urban areas of Calcutta. J Indian Soc Pedodont Prev Dentistry. 1996;14(1):17-20.
5. Verma H, Aggarwal AK, Rattan V, Mohanty U. Access to public dental care facilities in Chandigarh. Indian J Dent Res. 2012;23(1):121.

6. Vikum E, Krokstad S, Holst D, Westin S. Socioeconomic inequalities in dental services utilisation in a Norwegian county: the third Nord-Trondelag Health Survey. Scand J Public Health. 2012;40(7):648-55.
7. Roberts-Thomson KF, Stewart J, Giang Do L. A longitudinal study of the relative importance of factors related to use of dental services among young adults. Community Dentistry Oral Epidemiol. 2011;39(3):268-75.
8. Maharani DA, Rahardjo A. Is the utilisation of dental care based on need or socioeconomic status? A study of dental care in Indonesia from 1999 to 2009. Int Dent J. 2012;62(2):90-4.
9. Saddki N, Yusoff A, Hwang YL. Factors associated with dental visit and barriers to utilisation of oral health care services in a sample of antenatal mothers in Hospital Universiti Sains Malaysia. BMC Public Health. 2010;10:75.
10. Guiney H, Woods N, Whelton H, Morgan K. Predictors of utilisation of dental care services in a nationally representative sample of adults. Community Dent Health. 2011;28(4):269-73.

DOI: 10.5455/2394-6040.ijcmph20141109
Cite this article as: Bhatnagar N, Mohindroo A, Verma H, Aggarwal AK. Inequity in dental care utilisation: what gets delivered gets known - evidence from Chandigarh and Haryana. Int J Community Med Public Health 2014;1:44-7.