

Perception Towards Serving Rural Population Amongst Interns from Dental Colleges of Haryana

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ABSTRACT

Background: The problem of reluctance of dentists to work in rural areas is an international phenomenon. With an increase in number of dental colleges in India, there also has been an improvement in the dentist to population ratio. But still there exists a wide disparity in dentist to population ratio in rural and urban areas. The aim of this study was to find the perception of dental interns towards serving rural population and the reasons associated with their choices.

Materials and Methods: To know the willingness of dental interns to serve rural population and factors associated with their decision, 504 participants from six dental colleges of Haryana were interviewed. A pre-tested self-administered structured questionnaire was used for data collection. Descriptive statistics

were used for data summarization and presentation. Degree of association was measured by Chi Square test, with significance level set at $p < 0.05$.

Results: Out of total participants, 55.95% were willing to serve in rural area. Less competition in settling (46.45 %) was the prime factor for willingness, priority for postgraduation (45.01%) was main factor for reluctance. No significant difference ($p=0.365$) was seen in the perception of young dentists towards serving rural or urban population.

Conclusion: Even though the current statistics don't reflect a satisfactory dentist to population ratio in rural areas, the attitudes of the dental students towards practicing in rural areas were found to be good.

Keywords: Dental interns, Perception, Rural India

INTRODUCTION

India is a country of villages. According to 2011 census, around 68.84 % of Indian people live in rural areas [1]. With more than 300 dental colleges, the number of dental students graduating has also increased significantly from 1370 in 1960 to over 26000 in the year 2000; the number is still increasing [2,3]. But still, the rural areas are devoid of dental healthcare services. Almost all health systems experience various levels of geographical distribution problems [4]. Most dentists and other health professionals place a high value on urban or capital areas as preferred workplaces. As a consequence, rural and remote areas are often under-resourced in terms of skilled manpower, presenting a challenging problem in the planning and quality of delivered health care in those areas [5]. According to WHO, 'rural areas' are considered to be those areas which are not urban in nature. An 'urban agglomeration' refers to the de facto population contained within the contours of a contiguous territory inhabited at urban density levels without regard to administrative boundaries. It usually incorporates the population in a city or town plus that in the suburban areas lying outside of – but being adjacent to – the city boundaries" [6]. India has one dentist for 10,000 persons in urban areas and about 2,50,000 persons in rural areas [7]. Access to dental services may affect the quality of resident oral health, which in turn, can have a significant impact on the quality of life, overall health, and the productivity of local residents. Recent data indicates that disparities between rural and urban areas in dentist per capita are growing and some rural areas are beginning to see a loss of dentists. These disparities are likely to grow because a relatively large proportion of the rural dental workforce is nearing retirement age and at the same time, the youthful graduate cohorts are exhibiting a marked preference for more urbanized practice locations. Little is systematically known about dentists' preferences for their rural orientation. There are several reasons for the scarcity of qualified health workers in rural areas. The opportunity to earn a better income, to utilize skills, good living conditions, education opportunities for children and safe working and living environments are other important job attributes which tilt the balance in favour

of urban location [8]. The purpose of this study was to know the willingness of dental interns towards serving in rural areas and to explore the factors which influence the decision for or against taking up an opportunity to work in rural areas.

MATERIALS AND METHODS

The study was conducted among the graduating interns from dental colleges of Haryana. Out of 10 dental colleges, 6 were selected by cluster random sampling. All the interns present on the day of the visit to the colleges were considered. Then all the eligible subjects were invited to participate in the study. The eligibility criteria were willingness to participate and presence on the day of visit. Two visits were made to each college. The study was carried out during four months period (September to December, 2013).

A prestructured, pretested, close-ended questionnaire [9] was circulated among the interns. The questionnaire included their general demographic data, workplace preferences and reasons for their choice. The first question was formulated as 'After completion of internship, would you like to practice dentistry in a rural area.' They were allowed to choose out of multiple reasons associated with their willingness to work in rural areas or not. Reasons as perceived for willingness to work in a rural area were land/house/property in rural area, good approach to the village, village in proximity to the town, less competition in settling and needed a job. Those who were not willing to work in rural areas had to choose from priority for postgraduation, tough working conditions in rural areas, poor living conditions, isolation and lack of recreation, no scope for professional future as reasons behind their reluctance. Instructions on how to properly fill the questionnaire were given to the interns. The data were entered into Microsoft excel and analysed using SPSS version 21 software (SPSS Inc, Chicago, IL, USA). Descriptive statistics were used for data summarization and presentation. Degree of association was measured using the Chi Square test to assess the significance between different variables, with significance level set at $p < 0.05$.

RESULTS

Out of the total interns, 504 participated in the present study in which 404 (80.16%) were females and rest were males. The participation rate varied from 75%-90% from each of the selected college.

Responding to the questionnaire, 55.95% of the subjects expressed their willingness to work in rural areas. Reasons as perceived by those who showed their willingness to work in rural areas are given in [Table/Fig-1]. Less competition in settling (46.45%) was found to be the main reason associated with their willingness followed by need of a job (43.61%).

Around, 44.05% respondents were not willing to work in rural areas after the completion of their internship. Preference for postgraduation (45.05%) was the prime factor behind the reluctance of dental interns towards serving in rural areas. No scope for professional future (43.69%) was the second most important reason deterring the dental interns to work in rural areas. [Table/Fig-2] depicts the responses given by those who were not willing to serve in rural areas.

Although, more subjects (55.95%) were willing to serve in rural areas after completion of internship, but this difference was not found to be statistically significant ($\chi^2=0.822$, $p=0.365$).

DISCUSSION

The dental workforce in India is mainly concentrated in the urban areas. This study showed results that are quite different from the current scenario of low dentist population ratio in rural areas. This

Variables	No of Students (n=282)	%
Land and/or house/ property in rural area	87	30.85
Good approach to the village	112	39.71
Village in proximity to the town	81	28.72
Less competition in settling	131	46.45
Need a job	123	43.61

[Table/Fig-1]: Reasons as perceived for serving rural population

Variables	No of Students (n=222)	%
Priority for Post-Graduation	100	45.05
Tough working conditions in rural areas	51	22.97
Poor living conditions	77	34.68
Isolation and lack of recreation	66	29.72
No scope for professional future	97	43.69

[Table/Fig-2]: Reasons as perceived for not willing to serve rural population

may be due to the saturation of dental profession in towns and cities. In our study also, less competition in settling was found to be the most responsible reason for willingness of dental interns to work in rural areas. Rural background also has an influence on workplace preference. Most of the dental graduates after completion of internship apply for admission to postgraduate courses. People in general are also becoming specialist oriented and this trend is seriously threatening the community basis of healthcare system [9]. A similar study conducted on medical students by Sinha showed that only 9.1% of the total participants were willing to serve in rural areas [10]. In another study by Gaikwad et al., [11], 44.0% of the subjects showed their willingness towards working in rural

settings. In a study conducted among 600 medical students of the Faculty of Medicine at Addis Ababa University in Ethiopia, only 30% of the students said they would like to initially practice medicine in rural settings [12]. The major limitation of this study was that the participants could only mention the reasons given in the questionnaire. There could have been other factors associated with their choice of workplace and this could have influenced the results. The urban-rural skew is one of the major challenges that dentistry in India is facing today. The causes of the crisis are complex, and have to do, not only with production capacity, but also with an inability to keep the workers that are being produced in the places where they are most needed. Therefore, because of the complex web of factors that influences the mobility of health workers, any efforts to scale up the health workforce in response to the crisis must be combined with effective measures to attract and maintain both existent and newly trained health workers where they are needed most [13]. The concerned authorities should formulate effective measures such as mandatory postings in rural areas during internship period. Living and working conditions also need to be improved in rural settings. Moreover, extra incentives for those serving in rural areas might help in attracting young dentists to opt for these places, thereby helping to balance the biased urban-rural skew.

CONCLUSION

This paper is among the first to study dental interns perception of working in rural areas. We conclude that a number of factors are associated with the attitudes of students towards dental practice in rural areas. The dentist to population ratio in rural areas is not satisfactory according to the current statistics, but the attitudes of the dental students towards practicing in rural areas were found to be good. Further urbanisation of the rural and semi-urban areas might lead to improvement in the dental workforce distribution in our country.

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