



## Awareness of Geriatric Dental Care among Indian Dental Students in Central Indian University

Abhishek Purohit<sup>1</sup>, Bharathi M Purohit<sup>2\*</sup>, Sushmita Tewari<sup>3</sup>, Syeda Tasneem Naaz<sup>3</sup> and Umma Zainab<sup>3</sup>

<sup>1</sup>Senior Research Associate, Department Dentistry, AIIMS Bhopal, India

<sup>2</sup>Assistant Professor, Department of Dentistry, AIIMS Patna, India

<sup>3</sup>People's College of Dental Sciences and Research Centre, Bhopal, India

\*Corresponding Author: Bharathi M Purohit, Assistant Professor, Department of Dentistry, AIIMS Patna, India.

Received: August 31, 2018; Published: October 05, 2018

### Abstract

**Purpose:** The burden of dental diseases for elderly is increasing at a faster pace around the world. There is a need for understanding and addressing the oral health needs of geriatric population. In the life course of elderly adults there are many hurdles to receive proper dental care. This survey presents an approach to the assessment of Awareness of Geriatric Dental Care among senior Dental Students in Bhopal City.

**Methods:** The opinion of senior Dental Students on oral and dental care of the elderly and the extent of participation in providing oral and dental care advice to their elderly patients were assessed among 150 senior Dental Students of People's College of Dental Sciences and Research Centre. A pre structured research proforma was used for data collection.

**Result:** Out of 150 senior dental students, 99 completed the questionnaire, among the respondents, more than 50 percent of dental students preferred to treat all age groups. Majority of the dental students (74%) agreed to have undergone training in geriatric oral care in their as a part of their undergraduate curriculum and 98% agreed that there was a need to integrate geriatric dental care training as essential part of the undergraduate dental curriculum.

**Conclusion:** The present study proves the significance of oral health care of the elderly and should be integrated with dental curriculum.

**Keywords:** Dental Students; Geriatric Dental Care; Oral Health

### Introduction

From the moment that each of us is born, we are aging. For some, the prospect of aging is a very serious matter. And there is no doubt that there may be serious issues associated with aging, including health issues, mental status, financial considerations, and housing and transportation challenges. However, there is humor associated with the aging process. Consider that aging is a very relative term. To a teenager, someone aged 25 is "old." Many of our patients, themselves senior citizens (often in their late 80s), refer to neighbors, friends, co-residents in assisted living facilities as "they are so old," when, in fact, the people to whom they refer are in their 90s and the person speaking may be aged 88 or 89. New phraseology has arisen to describe our aging phenomenon, such as "60 is the new 40," or professionally, Age is only a number; it is functional status that counts [1].

India is the second most populous country of the world and 8% of the total population of India constitutes geriatric population. This percentage is expected to rise to approx. 10 - 12% of entire population [2]. The population growth rate of 1.58%, it is predicted that India has > 1.53 billion population at the end of 2030. Around 100 million elderly are in India at present, and it is expected that number will increase to 323 million, by 2050, constituting 20% of the total world's population [3].

Advances in the biomedical sciences and medicine have been major factors in increase of life expectancy. A hundred years ago individuals who would have died due to trauma, infections, major organ diseases, or oncologic conditions, in many cases now have medication, therapies and treatment available that effectively and predictably maintain life in most of the situations [4].

Any nation’s social and health institutions will continue to be challenged by changing demands for social and health services because of the anticipated growth in the elderly. Advances in health care facilities have contributed to longer life expectancy and growth of the elderly population. The overall health and wellness of older adults are related to their oral health. However, many older adults do not utilize dental services regularly. Barriers in terms of Physical, Cultural, financial aspects and dental service provisions affect elderly patient’s utilization of dental services [5]. Oral health care providers should ensure provision of quality oral health care for the elderly patients and inter sectoral coordination is essential so that all the health needs of the elderly are met under one roof. Oral health care providers must be trained to address the issues concerned to geriatric oral health and participate actively in the dynamic practice environment. There is a need to address specific geriatric issues related to cultural and ethnic background along with psychosocial and social perspectives in addition to preventive and promotive oral health care [6,7].

The burden of dental diseases for elderly is increasing at a faster pace around the world including developed and developing countries. Hence, there is a need for understanding and addressing the oral health needs of geriatric population and integrate them with overall health aspects. A number of studies have demonstrated that a significant number of dental professionals differ in the treatment of geriatric patients, for a variety of reasons including lack of complete knowledge about gerontology, including interaction of drugs [8-10].

The demographic shift in the Indian population enhances the need for geriatric oral health care [11]. Hence, the foremost objective of this study is to investigate the awareness of geriatric dental care among the senior dental students.

**Materials and Methods**

This cross-sectional study was conducted among 150 senior Dental Students (Postgraduates and Interns) of People’s College of Dental Sciences and Research Centre. All senior Dental Students willing to participate in the study were included. The study was approved by People’s College of Dental Sciences and Research Centre, Institutional Ethics committee and written informed consent was taken from all the participants prior to the study. The questionnaire included the demographic information of age, gender and year of study. The second part of the proforma included information regarding prior training in geriatric dental care, prior experience in

treating elderly in clinical practice. The last section assessed dental student’s self-perceived barriers to geriatric dental care provision. Data was analyzed using SPSS (Statistical Package for the Social Sciences) version 21 (SPSS Inc., Chicago, IL, USA).

**Result**

Out of 150 senior dental students, 99 completed the questionnaire (response rate = 66%). The mean age of the respondents was 25.5 ± 2.13 years. The demographic details of the senior dental students are given in table 1. Out of all the respondents, 69.7% (n = 69) were females and 30.3% (n = 30) males. The respondents according to their designation were interns (n = 41) and post graduates (n = 58). More than 50 percent of dental students preferred to treat all age groups. Table 2 shows independent variables in which the majority of the senior dental students (74%) had a previous experience in geriatric dental care in their undergraduate dental curriculum and 98% agreed that there was a need for geriatric dental care training as part of the undergraduate dental curriculum. Table 3 shows responses which were categorized on a Likert scale (1 = not important, 2 = very little important, 3= no idea, 4 = important, 5 = very important). Descriptive analyses were done using SPSS. According to the response, 50% ranked ‘follow up’ as the very important barrier whereas 58% ranked ‘inadequate communications skill’ as the most important barrier. Elderly patient compliance and inadequate knowledge of geriatric dental care were regarded as of the least concern areas while providing geriatric dental care.

Variables	N (%)
<b>Gender</b>	
Male	30 (30.3)
Female	69 (69.7)
<b>Age in years</b>	
21 - 25	55 (55.5)
26 - 36	44 (44.4)
<b>Designation</b>	
Post - graduate	58 (58.6)
Intern	41 (41.4)
<b>Preferred age group to treat</b>	
Children	12 (12.1)
Adult	24 (24.2)
Elderly	4 (4.0)
All age groups	59 (59.6)

**Table 1:** Demographic details of students who participated in the study.

Questions	Response	
	Yes N (%)	No N (%)
Do you have a previous experience on geriatric dental care	74 (74.7)	25 (25.3)
Should geriatric dental care be a part of our curriculum as training	97 (98)	2 (2)
Do you think training on geriatric dental care is required	90 (90.9)	9 (9.1)

**Table 2:** Response to independent variables of the study questionnaire by dental students.

### Discussion

As future dentists, dental students engage in a 5 year process designed to provide education, training and socialization into the profession [12]. As it is a part of this process, the educational experience has the innate potential for influencing the existing attitudes students have towards the groups that have been stereotyped in our Community [13]. One such group is the increasing number of geriatric patients with whom these dental students will have interacted as they move into their profession [14,15]. The present study was designed to begin exploring dental students’ general attitudes

Question	Not at all N (%)	Very little important N (%)	Little important N (%)	Important N (%)	Very important N (%)
Inadequate self confidence in elderly patients	10 (10.1)	5 (5.1)	25 (25.3)	30 (30.3)	29 (29.3)
Follow up of elderly patients	2 (2)	11 (11.1)	9 (9.1)	27 (27.3)	50 (50.5)
Elderly patient compliance	2 (2)	4 (4)	20 (20.2)	46 (46.5)	27 (27.3)
Inadequate knowledge of geriatric dental care	4 (4.0)	6 (6.1)	25 (25.3)	48 (48.5)	16 (16.2)
Financial ability of patient	0 (0)	5 (5.1)	20 (20.2)	49 (49.5)	25 (25.3)
Time consumption of patient	1 (1.0)	4 (4.0)	11(11.1)	47 (47.5)	36 (36.4)
Inadequate communication skills	5 (5.1)	8 (8.1)	9 (9.1)	58 (58.6)	19 (19.2)
Lack of appropriate treatment facilities	2 (2.0)	1 (1.0)	15 (15.2)	52 (52.5)	29 (29.3)

**Table 3:** Responses to important barriers for provision of dental care to elderly patients.

about older people on 3 dimensions; ageing knowledge, oral health related problems and influence of conditions on the oral health of geriatric patients. The study evaluated knowledge of senior dental students about the elderly and attitude regarding geriatric dental training and also the barriers to dental care provision for elderly patients. In this study the most important dental students’ barrier for treating geriatric patients was inadequate communications skill and follow up. These barriers were followed by inadequate self-confidence in geriatric patients. The least important barrier was inadequate knowledge, financial ability and patient’s compliance. Dental student’s beliefs, attitudes, and comfort level with treating geriatric patients are the major factors in encouraging or discouraging oral and dental care utilization by the elderly. Few of the student’s barriers for provision of dental care to elderly patients were influenced by their experience of elderly patient’s treatment. These included the time-consuming aspect of treating elderly patients, communication skills with elderly patients, patient compliance with treatment plans and challenges in follow up of

elderly patients. In this study, one of the reasons cited by the majority of dental students for their unwillingness to treat geriatric patients was “insufficient knowledge of geriatric dental care”. According to another study on geriatric dental health conducted on Iranian dental school, the strongest barrier was insufficient knowledge of geriatric dental health. Inadequate skills of communication with elderly patients and lack of confidence in geriatric patients’ management were the most important other reasons [16]. Although all barriers were important, follow up and, financial ability of elderly patients rated less highly [17]. According to another study conducted on Indian dental students by SDM College Dharwad, the results ranked self-care being unimportant, transportation facilities and dental health care not being a priority were ranked as the top three barriers. Undergraduate dental curricula do not include emphasis on geriatric oral health education. There is insufficient geriatric dental education despite the presence of some topics in oral medicine and prosthesis [18]. Providing students with more opportunities with clinical exposures and apply the knowledge gained can

address the gap. Good communication skill of the oral health care provider with active involvement of patient and the concerned family members is essential for successful implementation of any geriatric oral health care program. Success of any treatment depends on the effective planning to meet the needs and expectations of elderly patients. Dental schools should pay an important role in giving importance to social aspects of aging while designing the curriculum [19].

In this study, the students' ability to develop a satisfactory interpersonal relation with patients in general, and geriatric patients in particular, was not evaluated. Another limitation of the study concerned the lack of information on exposure the students had to geriatric patients. Also, the study was not designed to assess how the level and type of exposure to elderly adults influenced attitudes. Nonetheless, studies in future need to explore how the exposure to elderly adults influences both dental students' general attitudes and interactions.

### Conclusion

Several factors affect elderly patients' use of dental services including age, income, education, access to a dental office, and physical health. The important barriers for provision of dental care are inadequate knowledge of geriatric dental care, poor communication skills resulting in lack of confidence in management of oral care problems related to elderly. Hence, it is important to include comprehensive geriatric oral health care for undergraduate curriculum so as to prepare future dentists to meet challenges of growing dental needs of elderly.

### Bibliography

- Friedman PK. "Geriatric Dentistry: Caring for Our Aging Population". *John Wiley and Sons* (2014).
- India's population to be biggest' in the planet. BBC News. PubMed US Census Bureau, Demographic Internet Staff. "United States Census Bureau-International Data Base (IDB)" (2004).
- India's Elderly Population: Some Fundamentals, General Knowledge Today (2013).
- Fabiano JA, et al. "Understanding dental students' knowledge and perceptions of older people: toward a new model of geriatric dental education". *Journal of Dental Education* 69 (2005): 419-433.
- World Health Organization. Global health and aging. Acedido março (2015).
- Iacopino AM. "Maintaining oral health in the aging population: the importance of the periodontal-systemic connection in the elderly". *Grand Rounds Oral-Sys Medicine* 3 (2006): 25-37.
- Nations U. "World population ageing 2013". Department of Economic and Social Affairs PD (2013).
- MacEntee MI, et al. "Oral health concerns of an elderly population in England". *Community Dental Oral Epidemiology* 16 (1988): 72-74.
- Niessen LC and Gibson G. "The geriatric patient. In: Stefanac SJ, Nesbit SP, editors. Treatment planning in Dentistry. St Louis: Mosby (2001): 223-244.
- Pemer A and Landt H. "Evaluation of the need, perceived by general practitioners, for further education in geriatric dentistry". *Gerodontics* 4 (1988): 18-22.
- Bharti R, et al. "Oral care needs, barriers and challenges among elderly in India". *The Journal of the Indian Prosthodontic Society* 15 (2015): 17.
- Karner KJ, et al. "The impact of a hospital-wide experiential learning educational programme on staff's knowledge and misconceptions about aging". *The Journal of Continuing Education in Nursing* 29 (1998): 100-104.
- MacDowell NM, et al. "Effects of educational intervention in gerontology on hospital employees' knowledge of and attitudes about the older adult". *Journal Allied Health* 28 (1999): 212-219.
- Hawk C, et al. "Evaluation of a geriatrics course emphasizing interdisciplinary issues for chiropractic students". *Geriatric Nursing* 27 (2001): 6-12.
- Kaempfer D, et al. "Dietetics students' low knowledge, attitudes, and work preferences toward older adults indicate need for improved education about aging". *Journal of The American Dietetic Association* 102 (2002): 197-202.
- Bahadori M, et al. "Perceived barriers affecting Access to preventive dental services: application of DEMATEL Method". *Iranian Red Crescent Medical Journal* 15 (2013): 655.
- Hatami B, et al. "Dental Students Perceived Barriers in Geriatric Dental Care Active Involvement". *Oral Health and Dental Management* 13 (2014): 675-679.
- Anehosur GV and Nadiger RK. "Evaluation of understanding levels of Indian dental students' knowledge and perceptions regarding older adults". *Gerodontology* 29 (2012): e1215-e1221.
- Ajayi DM and Arigbede AO. "Barriers to oral health care utilization in Ibadan, South West Nigeria". *African Health Sciences* 12 (2012): 507-513.

**Volume 2 Issue 11 November 2018**

**© All rights are reserved by Bharathi M Purohit, et al.**