# ATTITUDE AND PERCIEVED BARRIERS IN TREATING GERIATRIC PATIENTS AMONG DENTAL INTERNS

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*Abstract-*

BACKGROUND-  In this era of the elderly, Old age comes with uninvited health and wellness issues and one of them is undisputedly their oral health. Training of the future dentists, who will show unbiased and genuine care and treatment for geriatric people needs to evolve in relevance of the exponential rise of the geriatric population. Therefore, this brings us to inculcate an empathetic attitude in the dental students and interns towards the elderly patients.

AIM- The aim of this study is designed to assess the current attitude and explore the perceived barriers dental interns face towards providing treatment to the elderly.

MATERIALS AND METHODOLOGY-  A questionnaire study was conducted among dental interns in Pune city, Maharashtra, India to determine the attitude and perceived barriers about geriatric dentistry among dental interns with a duration of about 3 months. The final considered sample size for the study was around 250 and convenient sampling technique was used in this study. Questionnaire consisted of general information about the participants and their relationship with closely related elderly like their grandparents, a questionnaire study based on that of the University of California, Los Angeles (UCLA), Geriatric Attitude Scale (GAS) that, consists of a mixture of 14 positively and negatively worded statements answered on a five-point Likert Scale for analyzing the attitude of participants and then the barriers that dental interns came across while providing treatment to geriatric patients. The questionnaire was prepared using Google forms and was distributed to the selected participants through email and whatsapp numbers. The reliability statistics calculated using Cronbach alpha were .725.

RESULTS- A total of 250 responses were collected The data reveals a relatively balanced representation of both female and male participants. Specifically, females a total of 120 respondents, and males around 130 respondents. In our survey we observed that females were more attached to the elderly at their places, when compared to males in our study. Females showed positive attitude when compared to male (P=0.003). The perceived barriers of dental students showed significant association with the financial ability of the elderly (P=0.0026), follow up by the elderly, elderly patient compliance and inadequate communication skills (P=0.045)

 CONCLUSION-  Majority of the dental interns had a positive attitude towards the old. The dentists in our study had moderate knowledge and ability in dealing with the older people's dental problems.  However, inadequate communication skills by interns, financial constrains of the elderly and lack of assistance for follow ups and lack of confidence in management of the elderly patients can be considered as perceived  barriers.

*Keywords-* Ageing, attitudes, barriers, dental interns.

## INTRODUCTION

This is the era of the elderly. India is witnessing an augmented escalation in the aging population. Rapid demographic changes with a growing population of the elderly has occured around the world. Given the current trend, it is expected that older people population will triple by 2050 and reach two billion.[1]. Bearing this in mind, we should be  primed for the aging phenomenon and adopt pertinent strategies to meet their health needs, one of which substantially being oral health in the Geriatrics.

 There has been a significant correspondence observed between oral health and general health, based on the analysis of the data obtained from the 2015–2016 cycle of the National Health and Nutrition Examination Survey (NHANES), it reports that out of the ten systemic diseases investigated, six were associated with oral health outcomes including diabetes, coronary heart disease, congestive heart failure, high blood pressure, asthma and liver condition[2].

To boot, difficulties in performing oral health self-care as a result of physical restrictions and mental impairments can lead to poor oral health in the older generations. Furthermore, lack of access to dental services as a result of financial constraints and lack of family support are other common problems that could potentially be deterrent for the elderly to sustain and can jeopardize their oral health.

 Establishing of optimistic and constructive attitudes towards older people is also a key component in the development of professional behaviors and practical patterns of dental students and interns.  However, dentists and senior students sometimes do not display positive attitudes towards providing dental care to the older people [3]

According to a survey, nearly 20% of graduated dental students in Belguim reported that they were not well-prepared to provide care to the older people due to lack of enough knowledge [4]

To assess a specific patient, the dentist must understand the cultural, psychological, educational, socioeconomic, dietary, and chronologically acquaintances that may have influenced the patient's life. Training in geriatric dentistry would enable the dentists to understand and empathize with the psychological behavior of the elderly, for which they need to develop competence in managing geriatric patients for that dental students must undergo educational experiences that result in development of special clinical skills and a caring attitude toward the eldery.

The present study was conducted with the aim to estimate the comtemporary attitude of undergraduate dental interns towards the geriatric population and understand the perceived barriers dental interns face for geriatric treatments.

## METHODOLOGY-

A questionnaire study was conducted among dental interns in Pune city, Maharashtra, India to determine the knowledge, attitude, and practice about geriatric dentistry among dental interns. The study duration was about 3 months. The participants were selected based on the following criteria:

(i)     Dental interns and

(ii)    Participants who are willing to participate in the study.

Undergraduate students and staff members were excluded from the study. The input parameters for the sample size calculation used were as follows: 80% power of the study, alpha error 0.05, effect size 0.5, and degree of freedom as 5. ( Two tailed test-Sample size calculation= [ (z)2 * P* (1-P)] divide by (d)2 ) The calculated sample size was 248 using G* power software version 3.1.9.2 (Heinrich Heine university, Dusseldorf), the final considered sample size for the study was around 250. The convenient sampling technique was used in this study. A structured, self-administered, and close-ended questionnaire was designed to collect the data which comprised of 26 questions comprising of the UCLA Geriatric Attitude Scale (GAS) and the other part analyzed the barriers that dental interns came across while providing treatment to geriatric patients. The questionnaire was prepared using Google forms (GOOGLE LLC, mountain view, California, United states) and the link was distributed to the selected participants through Email, WhatsApp number, and other social media platforms (Instagram, telegram etc.). The reliability statistics calculated using Cronbach alpha were .725. A brief introduction about the study was given and informed consent was taken from all the participants. Data collected were entered in spreadsheets (Microsoft Excel 2016). Statistical analysis was done using descriptive statistics. Statistical Package for the Social Science 23.0 version software (IBM Chicago, Illinois, United states) was used for analysis and P was = 0.05.

## RESULTS-

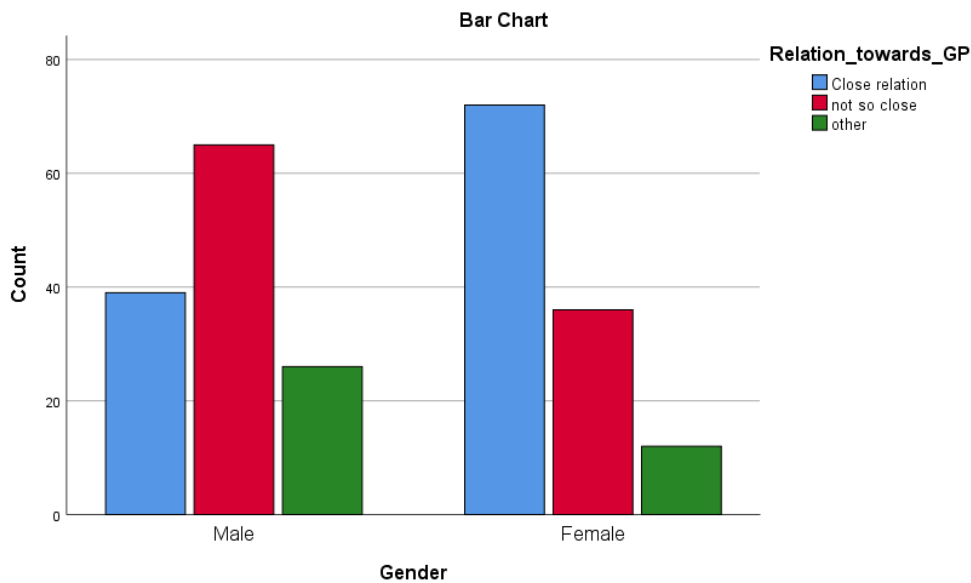TABLE 1. FREQUENCY DISTRIBUTION OF GENDER

|        | Frequency(N) | Percentage (%) |
|--------|--------------|----------------|
| Female | 120          | 48.0           |
| Male   | 130          | 52.0           |
| Total  | 250          | 100.0          |
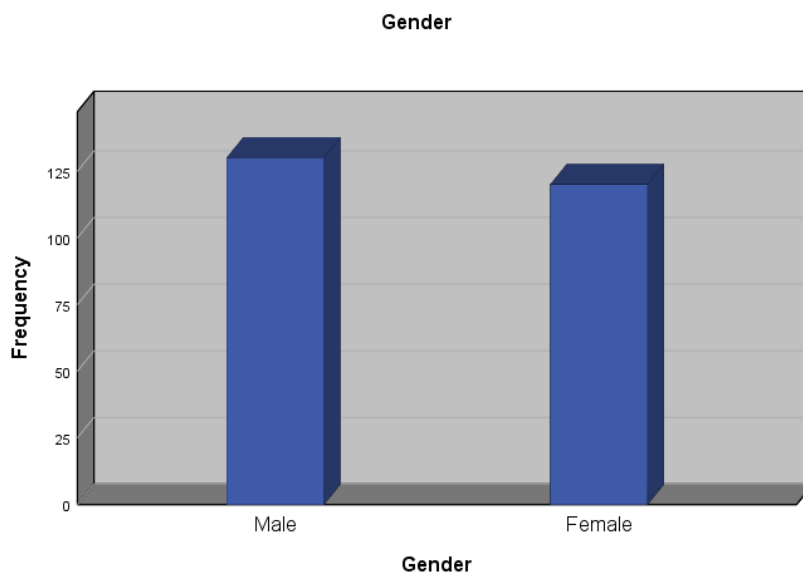


Gender

The data reveals a relatively balanced representation of both female and male participants. Specifically, Females a total of 120 respondents, or 48.0% of the surveyed population, identified as female.Male, conversely, 130 respondents, accounting for 52.0% of the total respondents, identified as male.



In our survey we observed that females were more attached to the elderly at their places, when compare to males in our study

TABLE 2. FREQUENCY AND PERCENTAGE DISTRIBUTION OF QUESTIONS

| S.N | Questions | Response | Frequency distribution | |
|---|---|---|---|---|
| | | | N | % |
| 1 | Old people do not contribute much to the society | 1<br>2<br>3<br>4<br>5 | 50<br>124<br>51<br>12<br>13 | 20<br>49.6<br>20.4<br>4.8<br>5.2 |
| 2 | I highly understand the problems of old people (physical and mental limitation) | 1<br>2<br>3<br>4<br>5 | 77<br>73<br>62<br>38<br>23 | 30.8<br>20.2<br>24.8<br>15.2<br>9.2 |
| 3 | I pay more attention and have more sympathy to my old patients than the young | 1<br>2<br>3<br>4<br>5 | 75<br>51<br>63<br>36<br>25 | 30<br>20.4<br>25.2<br>14.4<br>10 |
| 4 | As people get old, they become more less organized and more confused | 1<br>2<br>3<br>4<br>5 | 75<br>51<br>63<br>36<br>25 | 30<br>20.4<br>25.2<br>14.4<br>10 |
| 5 | Providing care to older patients takes more times than compared to young patients | 1<br>2<br>3<br>4<br>5 | 63<br>99<br>63<br>13<br>12 | 25.2<br>39.6<br>25.2<br>5.2<br>4.8 |
| 6 | Too much human and material resources are spent for the health expenses of geriatric patients | 1<br>2<br>3<br>4<br>5 | 86<br>52<br>73<br>26<br>13 | 34.4<br>20.8<br>29.2<br>10.4<br>5.2 |

| 7 | All dental advices are followed by them | 1 | 49 | 19.6 |
| | | 2 | 86 | 34.4 |
| | | 3 | 51 | 20.4 |
| | | 4 | 51 | 20.4 |
| | | 5 | 13 | 5.2 |
| 8 | Providing care for old people is society's responsibility | 1 | 49 | 19.6 |
| | | 2 | 86 | 34.4 |
| | | 3 | 51 | 20.4 |
| | | 4 | 51 | 20.4 |
| | | 5 | 13 | 5.2 |
| 9 | Listening to past experiences of older patients is interesting | 1 | 12 | 4.8 |
| | | 2 | 127 | 50.8 |
| | | 3 | 25 | 10 |
| | | 4 | 25 | 10 |
| | | 5 | 61 | 24.4 |
| 10 | Being with most of the older people is pleasant | 1 | 73 | 29.2 |
| | | 2 | 38 | 15.2 |
| | | 3 | 38 | 15.2 |
| | | 4 | 51 | 20.4 |
| | | 5 | 50 | 20 |
| 11 | Older people appreciate the health services more than the young ones | 1 | 62 | 24.8 |
| | | 2 | 24 | 9.6 |
| | | 3 | 64 | 25.6 |
| | | 4 | 75 | 30 |
| | | 5 | 25 | 10 |
| 12 | Management of chronically ill patients is disappointing | 1 | 12 | 4.8 |
| | | 2 | 98 | 39.2 |
| | | 3 | 25 | 10 |
| | | 4 | 52 | 20.8 |
| | | 5 | 63 | 25.2 |
| 13 | If I have a choice, I would prefer to provide care to the young patients than the old ones | 1 | 38 | 15.2 |
| | | 2 | 62 | 24.8 |
| | | 3 | 76 | 30.4 |
| | | 4 | 62 | 24.8 |
| | | 5 | 12 | 4.8 |
| 14 | Tracking medical and dental history from an older patient is difficult and challenging | 1 | 88 | 35.2 |
| | | 2 | 87 | 34.8 |
| | | 3 | 50 | 20 |
| | | 4 | 13 | 5.2 |
| | | 5 | 12 | 4.8 |
| 15 | Older people have problems in paying their share of health care costs. | 1 | 145 | 58 |
| | | 2 | 105 | 42 |
| | | 3 | 0 | 0 |
| | | 4 | 0 | 0 |
| | | 5 | 0 | 0 |
| 16 | Am I able to communicate appropriately with the old patients? | 1 | 223 | 89.2 |
| | | 2 | 27 | 10.8 |
| 17 | Am I able to express the sense of empathy and to understand the old people? | 1 | 226 | 90.4 |
| | | 2 | 24 | 9.6 |
| 18 | Am I able to provide dental treatment plan according to the needs and preferences of the old patients? | 1 | 238 | 95.2 |
| | | 2 | 12 | 4.8 |
| 19 | Am I able to plan preventive care for the patients? | 1 | 225 | 90 |
| | | 2 | 25 | 10 |
| 20 | Am I able to manage medical emergencies for the old patients? | 1 | 186 | 74.4 |
| | | 2 | 64 | 25.6 |
| 21 | Am I quite confident to manage the complexities of treating the old patients independently? | 1 | 237 | 94.8 |
| | | 2 | 13 | 5.2 |

| 22 | I think Mobile dental clinics are a good solution for elders without access to care | 1 2 | 250 0 | 100 0 |
| 23 | I feel Financial abilities of elder patients can impede with their treatment policies | 1 2 | 250 0 | 100 0 |
| 24 | I feel treatment methods for elderly patients are more time consuming | 1 2 | 238 12 | 95.2 4.8 |
| 25 | I feel some Elderly patients' lack of adequate knowledge makes patient compliance complicated or perplexed | 1 2 | 177 73 | 70.8 29.2 |
| 26 | I think Elderly patients find it challenging to obey with follow up appointments due to varied reasons and this curbs with their future treatment plan | 1 2 | 187 63 | 74.8 25.2 |

Notable findings in our study include a considerable percentage (49.6%) of respondents indicating a belief that old people do not contribute much to society. In contrast, over three-fourths of participants (30.8%) highly understand the physical and mental limitations faced by the elderly. Furthermore, a significant number of respondents (30%) reported paying more attention and having greater sympathy for older patients than younger ones. Similarly, a substantial percentage (30%) agreed that as people age, they become less organized and more confused. Regarding the challenges of providing care, over 39.6% of participants acknowledged that caring for older patients takes more time compared to caring for younger patients.

Additionally, the majority of respondents (34.4%) believed that too much human and material resources are expended on the health expenses of geriatric patients. In terms of compliance, approximately 34.4% of participants reported that not all dental advice is followed by elderly patients. The social responsibility aspect of elderly care was addressed with 34.4% of respondents indicating that providing care for older people is society's responsibility. Notably, listening to past experiences of older patients was found to be interesting for a substantial proportion (50.8%) of participants. Finally, a significantly lower number of respondents (29.2%) found being with most elderly people to be pleasant. Our findings highlight healthcare providers' varied perceptions and attitudes towards elderly patients and underscore the complexities of geriatric care.

TABLE 3: CO- RELATION OF DEMOGRAPHIC VARIABLES WITH RELATION TO GRAND-PARENTS.

|  | Relation to Grand-parents | |
| --- | --- | --- |
| **Demographic variables** | **X2** | **P value** |
| **Gender** | 2.261 | 0.033* |

P<0.05, STATISTICAL SIGNIFICANT*

The Demographic variables were analyzed in relation to relation to grand-parents. The statistical analysis revealed the following findings:
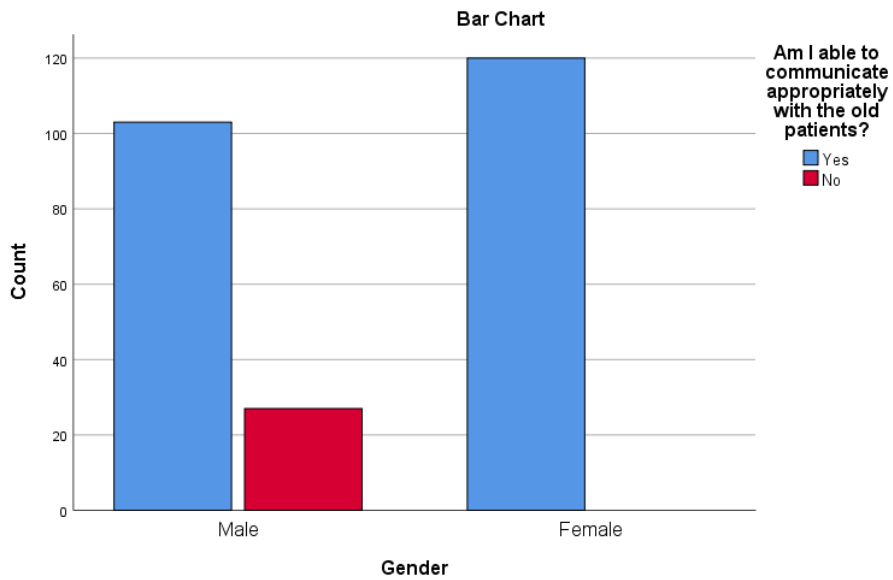
**Gender**:
The chi-square test (X2) yielded a value of 2.261.
The corresponding p-value was 0.033*, indicating a statistically significant association between gender and relation to grandparents.

TABLE 4a: CO- RELATION OF DEMOGRAPHIC VARIABLES AND SIGNIFICANT QUESTIONS

|  | Am I able to communicate appropriately with the old patients? | |
| --- | --- | --- |
| **Demographic variables** | **X2** | **P value** |
| **Gender** | 6.54007 | 0.045* |

Bar Chart

**Gender**:
The chi-square test (X2) yielded a value of 6.54007. The corresponding p-value was 0.045*, indicating a statistically significant association between gender and being able to communicate properly with the elderly. In that females showed a perfect 100% score for being able to communicate with the elderly.

TABLE 4b: CO- RELATION OF DEMOGRAPHIC VARIABLES AND SIGNIFICANT QUESTIONS

|  | Older people have problems in paying their share of health care costs. | |
| --- | --- | --- |
| **Demographic variables** | **X2** | **P value** |
| **Gender** | 5.00655 | 0.0026* |



Bar Chart
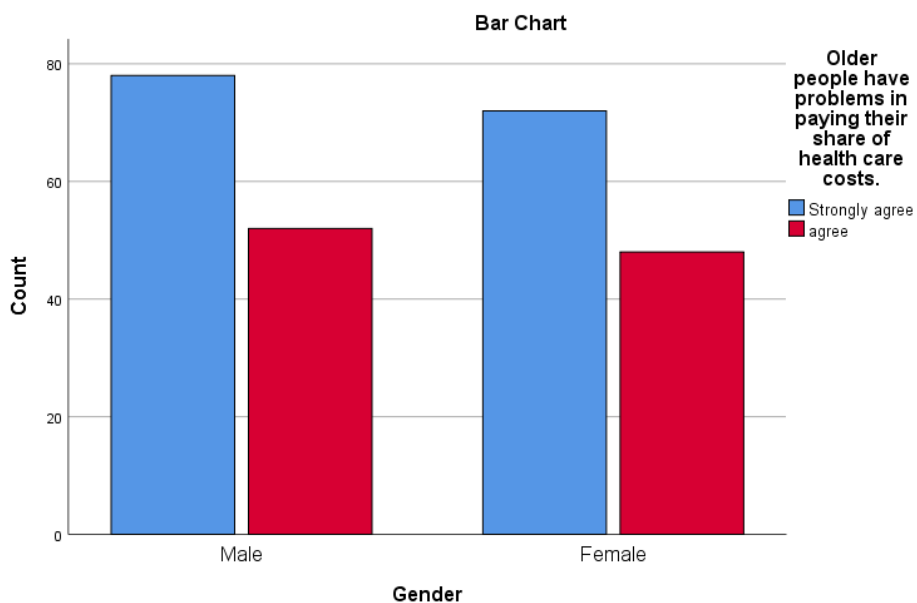
**Gender**:

The chi-square test (X2) yielded a value of 5.00655. The corresponding p-value was

0.026*, indicating a statistically significant association between gender and their attitudes towards older people. Among male participants, there is a higher number who strongly agree compared to those who merely agree.Among female participants, a similar pattern is observed, with more individuals strongly agreeing than just agreeing.The combined totals indicate that a significant portion of the surveyed individuals hold the perception that older people encounter challenges when it comes to covering their health care expenses.

**Relation to grandparents:-**

There was no statistical difference in the parameter when compared with the question's that we had asked in the survey.

**DISCUSSION-**

The purpose of this study was to investigate dental students attitudes and understandings towards the dental treatment of older adults. As the population ages rapidly, it is especially important for dentists to understand dental care for the elderly. Dentists beliefs, attitudes, and comfort level in caring for older patients are important factors that encourage or discourage older adults from seeking dental treatment.

In this study, the majority of dental students had positive attitudes toward older adults, and Gupta et al. [5]

Female students had relatively more positive attitudes compared to male students, which was statistically significant (P = 0.026). Most men (52%) and women (48%) reported not having sufficient knowledge about dental care for older adults. Furthermore, study participants insufficient knowledge about geriatric dentistry, lack of communication skills, and lack of confidence in treating geriatric patients are major barriers to geriatric dentistry.

Women had more positive attitudes than men, and female dental students seemed to have more compassion and empathy when providing dental care to older adults. It is known that by gaining sufficient clinical experience during dental school, dentists can gain clinical confidence and confidently approach the treatment of elderly patients [6].

Actively shape and change attitudes using a variety of domain-specific interventions, including age awareness training, multimodal interventions (e.g., didactic lectures, group activities, simulations, and coaching), and clinical gerontology, rotation, parent advisory programs, and integration of older content into the curriculum [6]. Positive personal interactions with older people and social pressure are the most important predictors of attitudes toward this age group [7]. Dental costs, concerns, availability, accessibility, and characteristics are reviewed by Borreani et al. are among the top five active barriers to dental care for older adults[8]

This study revealed that the inability of older adults to pay for treatment, difficulty in gathering medical histories, and communication issues are barriers for dentists to treat older adults. (enabling people to get dental care when they need it), system changes (such as reducing costs and improving information), and taking timely action. Different approaches need to be considered, including appropriate patient care and social initiative. Therefore, social and organisational changes may be more important than individual behaviours for older adults [8].

**CONCLUSION-**

Dentists who participated in our study had moderate knowledge and skill in treating dental problems in the elderly. However, the majority had a positive attitude towards the elderly. Therefore, the promotion of geriatric education, especially clinical education, in dental schools should be on the agenda of decision-makers in dental education. Ongoing conferences and seminars in this area, covering topics such as physiological changes in the elderly, communication techniques, and care management concepts, are also of great benefit to newly qualified dentists.

Additionally, it is important to educate dentists about the requirements and emphasize the importance of compliance by establishing appropriate regulatory procedures.

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