



CLEAR ALIGNER ADVERTISEMENT-ASSESSMENT OF INFLUENCE ON PATIENTS AND PRACTISING DENTISTS- A CROSS-SECTIONAL SURVEY

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ABSTRACT

Objective: To assess the influence of clear aligner advertisement among practicing dentists and also among 18–70-year-old patients in Karnataka. **Methods:** The study was conducted on a total of 624 people, comprising of 243 general population and 381 dentists aged between 18-70 years in Karnataka. Validated questionnaire containing 25 questions to patients and 22 questions to the dentists was prepared using the data was coded and fed in SPSS for statistical analysis. **Results:** The distribution of study subjects based on age, gender, marital status, educational qualifications, occupational status and monthly family income were found to be statistically significant ($p < 0.001$) among general population. The distribution of study subjects based on practice type were found to be statistically non-significant ($p > 0.001$) among practising dentists. **Conclusion:** People mostly live through the knowledge-containing content in this digital age via social media. This trend has slowly crept into the healthcare industry over time. This also has to do with the recent expansion, commercialization and widespread platform advertising of the clear aligner market. Utilisation depends on how much of the information about clear aligner treatment is available.

KEYWORDS : Clear Aligner Therapy, Orthodontic Advertising, Social Media Marketing, Patient Awareness, Dentist Attitude.

INTRODUCTION

Malocclusion is said to be the third most common dental anomaly, following caries and periodontal disease. The increase in the number of young & adult orthodontic patients has promoted an upsurge in the demand for esthetic and comfortable alternatives to conventional fixed appliances. In the modern era, social media has taken the lead as the main place to find information. It has shown to be an effective technique for marketing and expanding the visibility of several goods and services offered by different businesses and brands. Over time, this trend has gradually permeated the healthcare sector. This is also related to the clear aligners industry's recent growth, commercialization, and extensive platform advertising.

Hence this study was conducted to evaluate the influence of clear aligner advertisement among practising dentists and 18–70-year-old patients in Karnataka.



Fig 1 Illustrates the Clear Aligner

MATERIALS AND METHODS

The proposed study was a questionnaire survey. The study consisted of two groups namely patients aged between 18-70 years old and practicing dentists. The study was conducted using a convenient sampling method. Patients and practicing dentists who have seen the clear aligner therapy advertisement were part of the study. Google Short Form survey were used to gather data. There was a link provided so that users could access the form. Responses were treated with utmost confidentiality. The data were collected, coded and fed

in SPSS for statistical analysis. The level of significance was set at 0.05 at 95% confidence interval.

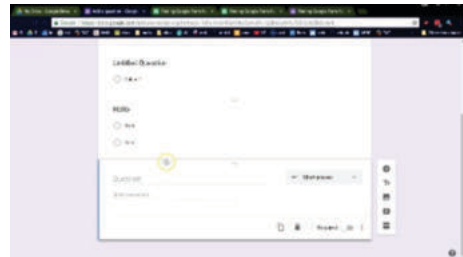


Fig 2 Illustrates the Google Form

RESULTS

Clear aligner therapy was selected by 31.2% of the study subjects for aesthetic reasons. The celebrities brand face value is a major factor in attracting patients for Clear aligner treatment (29.6%). 43.6% of the study subjects are unsure about the clear aligner therapy. After viewing the company's video, 39.2% of the study subjects expressed satisfaction. Before utilizing the products, 37.2% of the study subjects read the product reviews. Among the study subjects, 19.6% thought it was more convenient to get in touch with advertising agencies than with dentists. Among the advertisements, Invisalign (26.8%) received a lot of attention.

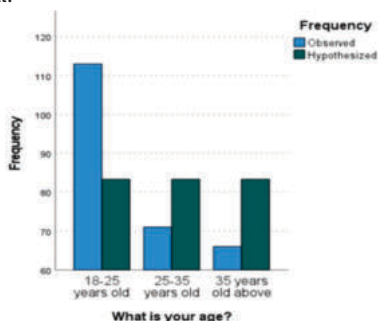
Among the dentists who took part in the survey, 39.8% knew that there were private advertising firms promoting clear aligners. 15% of the dentists utilize social media to promote their clinical practice. 64% of the dentists felt that raising as much general public awareness of the product as possible was the primary goal of advertising. Patients who were treated with clear aligner therapy by the dentists consisted of 39.8% adult full-time employees. 26.6% dentists feel that advertising had a significant impact on patient's decision to see dentists for clear aligner therapy.

Table 1: Assessment of Influence on Patients

S NO.	QUESTIONS	P VALUE
1	What is your age?	<0.001 (S)
2	What is your gender?	<0.001 (S)

3	What is your marital status?	0.000 (S)
4	What is the highest degree or level of school you have completed?	0.000 (S)
5	What is your occupational status?	<0.001(S)
6	What is your updated family monthly income (in rupees)?	<0.001(S)
7	Are you aware of the clear aligner therapy?	0.312 (NS)
8	Where did you notice the advertisement regarding clear aligner therapy?	<0.001(S)
9	How did you come to know about the advertisement regarding clear aligner therapy?	<0.001(S)
10	Why do you think you should go for clear aligner therapy?	<0.001(S)
11	Why do you think the branded companies chose their patients as foreign people for advertisement?	<0.001(S)
12	Why do you think the branded companies chose their patients as foreign people for advertisement?	<0.001(S)
13	Why do you think the branded companies chose their patients as foreign people for advertisement?	<0.001(S)
14	Why did you choose an advertisement company rather than visiting a dentist (specialist)?	<0.001(S)
15	How confident are you with the treatment offered by the aligner company without the involvement of a dentist (specialist)?	0.503(NS)
16	Are you happy with the level of clarity in the video that demonstrates aligner therapy and the available treatments?	0.004 (NS)
17	Have you gone through the feedbacks for the quality of product before using it?	0.420(NS)
18	Which clear aligner company have you most commonly seen in advertisement?	<0.001(S)
19	What do you think is the price range of clear aligner therapy?	0.199(NS)
20	How long do you think is treatment time of clear aligner therapy?	0.019(NS)
21	Would you be able to wear clear aligners for 22 hours/day?	0.138 (NS)
22	Are you aware that in certain cases teeth have to be removed?	0.001(S)
23	Have you contacted anyone who has undergone similar treatment before you approached for the clear aligner therapy?	0.078(NS)
24	Are you aware of dietary modifications during course of treatment?	0.220 (NS)
25	Do you know whom to contact when you have any doubts or issues with the treatment offered?	0.006 (NS)

S: Significant at p value <0.05 using chi square test; NS: Not Significant.

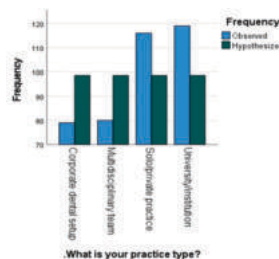


Graph 1: Shows The Distribution of Study Subjects Based on Age

Table 2: Assessment of Influence on Practicing Dentists

S NO.	QUESTIONS	P VALUE
1	What is your practice type?	0.002 (NS)
2	From which platform did you gain knowledge about clear aligners?	0.000 (S)
3	Patients of which gender are more likely to prefer clear aligner therapy in your experience?	<0.001 (S)
4	For how many years; have you been advertising clear aligners in your practice to treat malocclusion?	0.048 (NS)
5	What is the common age group of patients requesting clear aligner therapy?	<0.001 (S)
6	How is clear aligner therapy applied in your therapeutic settings?	<0.001 (S)
7	Which according to you is the common occupational status of the patients preferring clear aligner therapy?	<0.001 (S)
8	What commonly makes a patient approach clear aligner therapy?	0.018 (NS)
9	Which according to you is the main reason for the patients to demand invisible clear aligners?	<0.001 (S)
10	Which type of dental malocclusion is more likely to be treated with clear aligner easily?	<0.001 (S)
11	How many active clear aligner cases have you done among braces in the last 12 months	0.229 (NS)
12	What is the time interval that you follow between conservative appointments in clear aligner treatment?	0.019 (NS)
13	How often do you find any case for clear aligner therapy?	0.003 (NS)
14	What's the major limitation of the clear aligner therapy?	<0.001 (S)
15	Do you think clear aligners can be given to patients with abnormal oral habits?	0.281 (NS)
16	Are you aware of private advertising agencies?	0.017(NS)
17	What is the most common way you advertise your clinical practice?	<0.001 (S)
18	What is the purpose of advertising clear aligners in dental practice?	<0.001 (S)
19	According to you; how much does advertisement influence the patient's choice in choosing dental clinic/aligner company?	<0.001 (S)
20	According to you what should be the minimum qualification to prescribe aligners?	0.169 (NS)
21	What do you think is the price range of clear aligner therapy?	0.006 (NS)
22	Do you think that auxiliaries are required in certain aligner cases?	0.295 (NS)

S: Significant at p value <0.05 using chi square test; NS: Not Significant.



Graph 2: Shows the Distribution of Study Subjects Based on Practice Type

DISCUSSION

General Population

In the present study, in response to the question - "Are you aware of the clear aligner therapy?" 117 (46.8%) subjects responded with No and 133 (53.2%) subjects responded with Yes. The results are in accordance with the study conducted by Bhosale MB, Kolge NE, Jain AA, Ravindranath VK in Navi Mumbai, where 83% participants were aware of clear aligner therapy. In the present study, in response to the question - "Where did you notice the advertisement regarding clear aligner therapy", 38 (15.2%) subjects responded with flyers; 83 (33.2%) subjects responded with social media; 48 (19.2%) subjects responded with Television and 47 (18.8%) subjects responded with none of the above. The results are in accordance with the study conducted by Bhosale MB, Kolge NE, Jain AA, Ravindranath VK in Navi Mumbai.

Practising Dentists

In the present study, in response to the question "Which according to you is the main reason for the patients to demand invisible clear aligners" 146 (37.1%) subjects responded with aesthetics; 88 (22.3%) subjects responded with Easier to maintain oral hygiene; and 103 (26.1%) subjects responded with lesser treatment time. The findings are in accordance with the study conducted by Santhosh Ram Kumar Marudha Veeran, Rehna Parvin Navas, Raja Arasappan, Raja Subramani, Selvamani Soundarajan, Nivas Sundar Saravanan in Tiruchengode, Tamil Nadu, where 97.9% participants considered aligners were more aesthetic than regular braces. In the present study, in response to the question - "How many active clear aligners cases have you done among braces in the last 12 months", 115 (29.2%) subjects responded with 0-10; 92 (23.4%) subjects responded with 11-20; 88 (22.3%) subjects responded with 21-30 and 99 (25.1%) subjects responded with 30+. The findings are in accordance with the study conducted by Santhosh Ram Kumar Marudha Veeran, Rehna Parvin Navas, Raja Arasappan, Raja Subramani, Selvamani Soundarajan, Nivas Sundar Saravanan in Tiruchengode, Tamil Nadu, where 60% participants were using clear aligners in their practice and the frequency rate was minimum of 1 to 10 aligner cases per annum.

CONCLUSION

Study showed that clear aligner therapy advertising through social media has played a vital role in influencing the decision-making ability of patients and also on the treatment options for dentists. The clear aligner market's recent growth, commercialization and extensive platform advertising are factors in this. Hence it depends on the patient's cautious use and risk evaluation when it comes to clear aligner treatment because not all of the information is reliable. Concerns have been raised by professional dental associations over the younger generation's tendency to obtain orthodontic treatment directly from businesses rather than dentists. Ministry of Health, Govt. of India has made the correct decision in this direction by not permitting direct access and sale to patient by private clear aligner companies and stopping unregistered courses. As a public health dentists, it is our responsibility to support professional and regulatory organizations in framing guidelines and implementation pertaining to the content of online advertisements.

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Fig 3 Illustrates the Notice Given by Ministry of Health and Family Welfare