

Dr. Google, Its Impact on Doctor-Patient Relationship in Khammam, Telangana, India – A Cross-Sectional Questionnaire Based Study

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Abstract: Introduction: In recent times referring Dr. Google for oral health information has increased among the people. Most people refer Dr. Google in an effort to self-diagnose and understand the treatment alternatives prior to dental consultation which is interfering with doctor patient relationship and decision making. Hence this study is conducted with an aim to assess the opinion of dental practitioners on usage of Dr. Google for oral health information by patients. **Material and Methods:** A cross-sectional questionnaire based study was conducted in Khammam city, Telangana, India to explore opinion of private dental practitioners on the impact of usage of Dr. Google by patients in decision making, dental treatment and ways to combat Dr. Google. Chi-square test was used to test the significant difference based on the qualification and years of experience. **Results:** A total of 77 dentists were participated in the study and majority of them were MDS (71.4%). When comparison done based on qualification majority of the dentists (MDS-62.5%) encountered 21-30 patients per month who browse Dr. Google before consultation and it effected doctor patient relationship leading to anger and frustration. When comparison done based on years of clinical experience majority of dentists (with clinical experience >11yrs-78.57%) responded that the ways to combat Dr. Google were investing on "digital patient education" and informing customized oral health services provided in clinics. **Conclusion:** Though Dr. Google imparts various oral health information to the patients, the precise diagnosis and needful treatment advised by the dental professional is more valuable. This study concludes that good verbal communication by dentist, investing in digital patient education at clinics, improving clinic website, customization of oral health information to the targeted groups could be the ways to combat Dr. Google.

Keywords: Internet, Oral health, Dentist-patient relationship, Dental perception.

1. Introduction

The active internet population is growing worldwide, rising from 4.6 billion in January 2021 to 5 billion in April 2022, reaching a 63% penetration rate [1]. Information related to health is an intensifying and more accessible topic to over 3.2 billion individuals who have access to the web worldwide [2].

Presently, the most common and popularly used social media platforms are Facebook, Instagram, Twitter, Snapchat, YouTube, and WhatsApp, respectively. Initially, social media was primarily used for the people to communicate with each other such as sharing their lives, and important events, however, nowadays it has been a platform for education, marketing, business, and advertisements [3]. In India there are 900 million internet users and is the second largest online market in the world, ranked only behind China [4]. Currently, there are more than 70,000 websites which can be used for patient self-education and also confirm whether the practitioner has given the right information or not [5]. The Doctor-patient relationship is very important for the perseverance of the treatment of the patient and should trust each other so that better patient outcome is achieved [2]. In today's world, internet put forward easy approach to health-related data, physicians have to deal with patients who bring along information from the internet without knowing the information is true or not and this information sometimes leading to discomfort to the doctor as the patient might judge the ability of his doctor, or self-medicate, sometimes change their physician, or even misjudge or diagnose their disease. Due to all these factors, patient safety is compromised [2]. At times it becomes difficult for a doctor to counsel the patient that whatever the doctor is saying is of complete benefit to the patient and sometimes the doctor-patient relationship is compromised [6].

Doctors when asked that how they deal with these patients who search 'Google', specified that they feel threatened and also that their professional expertise has been disregarded. The unwanted information compromises the time of the doctor and other patients as well [7]. Since 'Google' offers a wide range and convenient access to health-related material, doctors increasingly have to face the patients who search online and bring their queries into consultations. Recently there is a shift of power from the uninformed patients to more empowered ones who can better take care of themselves [8]. So this study is conducted to assess the opinions and problems faced by the

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Private dental practitioners when patients refer Dr. Google before oral health consultation and to assess the possible ways to combat Dr. Google.

2. Materials and Methods

A descriptive cross-sectional study was conducted among the private dental practitioners of Khammam city, Telangana, India during August 5th 2022 to August 20th 2022. The present survey study populations included in total of 120 dentists from various specialties with their verbal consent. Data were collected through a self-administered questionnaire, composed of 23 close-ended questions which consisted of demographic details (1 to 4), opinion of dentists on Dr. Google usage (5 to 10, 16), problems faced by dentists due to usage of Dr. Google by patients (11 to 15) and the possible ways to combat Dr. Google (17 to 23). Ethical clearance was obtained from the Institutional ethical committee before the commencement of the study. Collected data entered in Microsoft Excel 2010 and were analyzed by using Statistical Package for the Social Sciences software (SPSS) version 25.0 using descriptive statistics. Results were described in percentage and displayed in appropriate tables and graphs.

3. Results

Table 1
Demographic profile of respondents

	No. of respondents	% of respondents
Gender		
Male	49	63.636
Female	28	36.364
Age groups		
24-33yrs of age	16	20.779
34-43yrs of age	52	67.532
>=44yrs of age	9	11.688
Mean age	37.55	
SD ± age	5.64	
Qualifications		
MDS	55	71.429
BDS	22	28.571
Years of clinical practice		
<=5years of clinical practice	15	19.481
6-10 years of clinical practice	34	44.156
11+yrs of clinical practice	28	36.364
Total	77	100.000

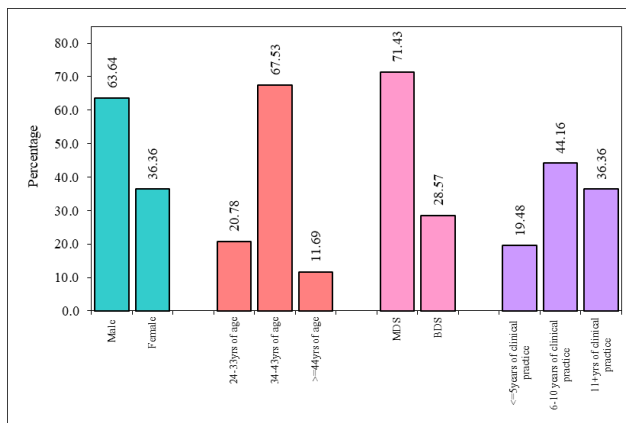


Fig. 1. Demographic profile of respondents

Table 1 and Fig. 1 depicts the demographic profile of the

study population which consisted of 77 subjects. Among them 49(63.6%) of them were males and 28(36.3%) were females. Majority (52(67.5%)) of the Private Dental Practitioners belong to 34-43yrs age group followed by 24-33yrs (16(20.7%)) and ≥44yrs 9(11.6%) age groups. Majority [55(71.4%)] of the Private Dental Practitioners were qualified with MDS followed by 22(28.5%) Private Dental Practitioners qualified with BDS. In the current study most [34(44.1%)] of the Private Dental Practitioners had 6-10yrs of clinical experience followed by 28(36.3%) followed by 15(19.4%) with clinical experience of more than 11yrs and ≤5yrs.

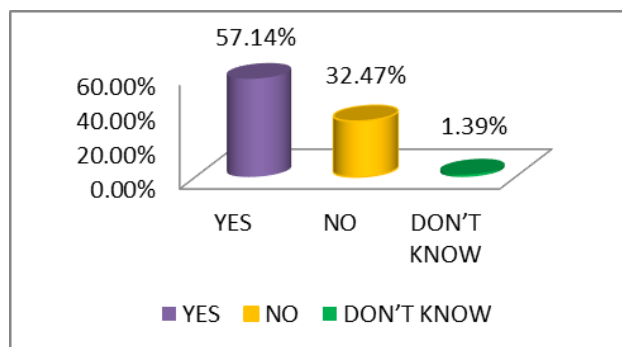


Fig. 2. Do your patients routinely search google before visiting you for dental treatments?

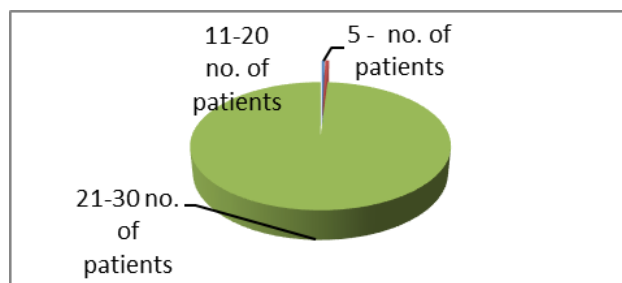


Fig. 3. How many patients do you encounter per month?

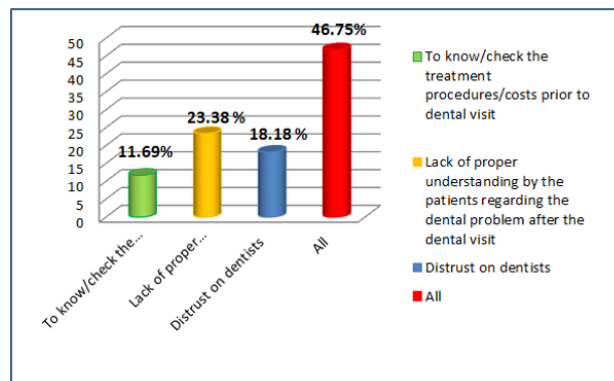


Fig. 4. What might be the probable reasons for online search of oral health information by patients?

Table 1
Item wise responses of respondents

Items	No. of respondents	% of respondent
What do you mean by "GOOGLE SYNDROME"		
Tendency of fear towards usage of google	3	3.90
Tendency of the patients to do vigorous internet search to self-diagnose their medical/dental problems	67	87.01
Acquired fear/anxiety by patients after searching medical/dental problems on google	7	9.09
Do your patients routinely search google before visiting you for dental treatments		
Yes	44	57.14
No	25	32.47
Don't Know	8	10.39
If yes, how many patients do you encounter per month		
5 - 10 pts	9	20.45
11-20 pts	13	29.55
21-30 pts	22	50.00
Does your patient asks you to which speciality you belong to ?		
Yes	42	54.55
No	35	45.45
What might be the probable reasons for online search of Oral health information by patients?		
To know/check the treatment procedures/costs prior to dental visit	9	11.69
Lack of proper understanding by the patients regarding the dental problem after the dental visit	18	23.38
Distrust on dentists	14	18.18
All	36	46.75
Online search of Dental Health Information will		
Reduce dental anxiety of the patient	7	9.09
Increase dental anxiety of the patient	25	32.47
Prepares the patient positively to communicate in taking decision on treatment planning	2	2.60
Both a and c	43	55.84
Do you think it is time consuming to deal with a patient who already searched Dr.Google?		
Yes	35	45.45
No	42	54.55
Is Dr. Google interfering with doctor patient relationship?		
Yes	58	75.32
No	19	24.68
Are you prepared with google information to face / manage / answer / discuss with patient who use Dr. Google?		
Yes	49	63.64
No	28	36.36
How do feel when a patient comes to you after searching Dr. Google?		
Feeling threatened	21	27.27
Professional experience disregarded	27	35.06
Anger and frustration	29	37.66
How do you deal with the patients who search Dr. Google and constantly argue?		
I will not entertain such patients	11	14.29
Appreciating them for their concern about their oral health and explaining about the misinformation on internet	40	51.95
Explaining them diagnosis needs proper clinical examination and investigations	26	33.77
A good verbal communication by the dentist towards their patient		
Improve doctor patient relationship	6	7.79
Improves patient's behaviour	16	20.78
Helps in symptom relief	18	23.38
Positive treatment outcome	5	6.49
All the above	32	41.56
Now-a-days in which ways a patient can be molded to listen to dentists		
Improve your clinic website	28	36.36
Mastering social media by usage of Youtube videos, facebook or twitter	14	18.18
Reaching patients through Tele Dentistry	10	12.99
Inclusion of Oral Health Education through AV-Aids in waiting area	25	32.47
How can a dentist improve his/her website to combat Dr. Google?		
Mentioning the speciality	32	41.56
Mentioning the services which are provided	28	36.36
Mentioning the common symptoms of the diseases which are treated	7	9.09
Information on when to take an appointment and running to the emergency room	10	12.99
Which of the following social media could be used to build awareness of the dentist and clinical procedures undertaken		
You tube	19	24.68
Facebook	33	42.86
Twitter	4	5.19
Instagram	21	27.27
What are the advantages of usage of Tele Dentistry?		
Increase in patient's confidence that there is a doctor available for seeking advise	28	36.36
Tele health services could safely and securely diagnose the situation	23	29.87
Sharing the duties and outsourcing them that services are available for 24/7	12	15.58
None of the above	14	18.18

Items	No. of respondents	% of respondent
What are the advantages of creating a "fan page" for you practice on Facebook?		
Posting interesting topics	12	15.58
Encouraging the dialogue between the patients	17	22.08
Adding YouTube videos for better exposure	9	11.69
All the above	39	50.65
Customization of oral health information for individual patient's needs can be done by?		
Sending mails to targeted groups (Diabetes, hypertension, cardiac diseases, etc.) with tips, diet for good oral health	35	45.45
Sending planning tools for their appointments like food journals, exercise logs, sleep logs, etc.	2	2.60
Both a and c	40	51.95
By which of the following ways a dentist can combat Dr. Google?		
Investing on "digital patient education" in waiting rooms, examining rooms and at chair side	32	41.56
Informing patients about customized oral health services provided	5	6.49
All the above	40	51.95
Total	77	100.00

*p<0.05

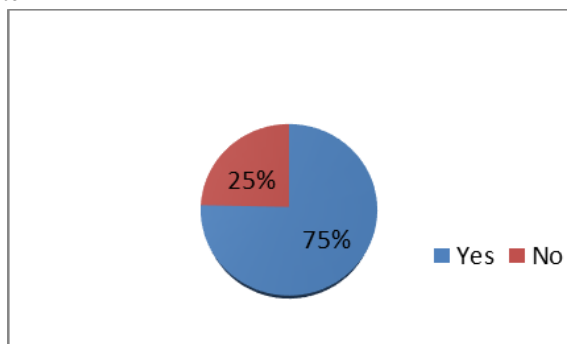


Fig. 5. Dr. Google interfering with doctor patient relationship?

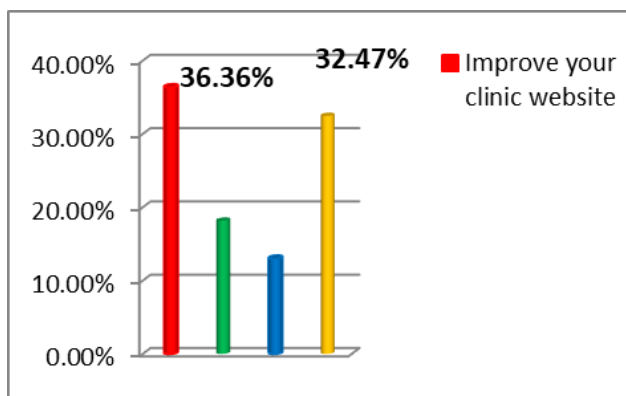


Fig. 6. Now-a-days in which ways a patient can be molded to listen to dentists?

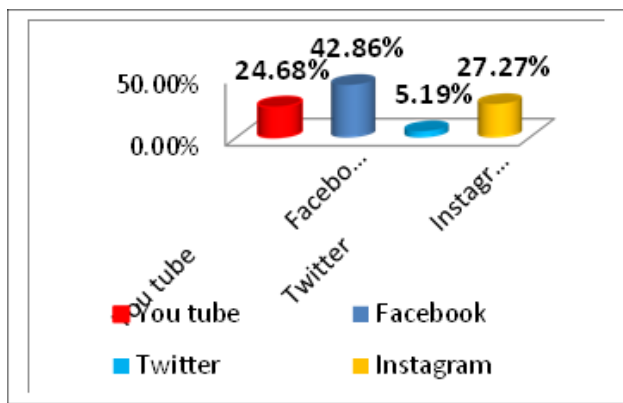


Fig. 7. Which of the following social media could be used to build awareness of the dentist and clinical procedures undertaken?

A. Response on Opinion of Dentists on Dr. Google Usage

Table 2, Figure 2 shown that majority [44(57.14%)] of the dentists responded that the patients routinely search google

before visiting them for dental treatments and 22(50%) responded that they encounter 21-30 patients per month (Figure 3). Majority [36(46.75%)] of the dentists responded that the possible reasons for online search of oral health information (Figure 4) are as follows.

- To know/check the treatment procedures/costs prior to dental visit.
- Lack of proper understanding by the patients regarding the dental problem after the dental visit.
- Distrust on dentists.

B. Response on Problems Faced by Dentists on Dr. Google Usage

Table 2 shown that 25(32.7%) dentists responded that the online search of dental information will increase dental anxiety of the patient. 35 dentists (45%) responded that it is time consuming to treat such patients. Majority of the dentists [58(75.32%)] acknowledged that Dr. Google effecting the doctor patient relationship (Figure 5). Most of the dentists [40(51.95%)] appreciated patients for their concern about their oral health and explained about the misinformation on internet. 29(37.6%) dentists felt anger and frustrated when patient comes after searching Dr. Google followed by Professional experience disregarded [27(35.06%)] and feeling threatened [21(27%)].

C. Response on the Ways to Combat Dr. Google by Dentists

Table 2 shown that most of the dentists [28(36.36%)] responded that patients can be molded to listen dentists by improving the clinic website (Figure 6). Majority of the dentists [33(42.86%)] acknowledged that "Facebook" can be used as social media to build awareness of the dentist and clinical procedures (Figure 7).

Majority of the dentists [40(51.95%)] responded to the ways to combat Dr. Google were as follows.

- Investing on "digital patient education" in waiting rooms, examining rooms and at chair side.
- Informing patients about customized oral health services provided.

4. Discussion

In the present study majority of the dentists [58(75.32%)] acknowledged that Dr. Google effecting the doctor patient relationship similar to study done by Payal. C et.al., (2019) [5], on 120 Mumbai dentists where 46.7% dentists believe that

internet information regarding the disease ruins the patient–dentist relationship. It is believed that “Doctor knows best” but now due to increase influence of the digital world this is the old belief of the patients. It is important to evaluate how patients use this internet information, keeping in mind that patients may encounter difficulties understanding medical language as well as doubts arising from the multiplicity of information. Vast information available on internet may sometimes mislead or misguide the patients. Such patients might end up in taking inappropriate decisions regarding treatment for their oral disease [9]. They found that dentists have modified their thinking toward their disease and decision making in choosing appropriate treatment plan for their oral disease. It is indeed tough for a patient to differentiate right from wrong or even traditional procedures from unconventional. The consideration remains, therefore, whether patients are able to explain in a decent manner the information they obtain. That is why, despite the importance associated to the liberal and democratizing facets of the internet, it is necessary to possess the technical and cultural prerequisites to access it intelligently [5].

In the current study most of the dentists [28(36.36%)] responded that the patients can be molded to listen dentists by improving the clinic website. Majority of the dentists [33(42.86%)] acknowledged that “Facebook” can be used as social media to build awareness of the dentist and clinical procedures which is similar to studies conducted by Bahabri et.al (2021) [11] and Ghandhi D. et. al (2022) [3] where 75% and 46% of the dentists agreed to the same. Social media has currently become one of the most significant and essential parts of people’s lives including dentistry. Social media nowadays is used for different purposes such as advertisements, marketing, and education [3].

5. Conclusion

Though Dr. Google imparts various oral health information to the patients, the precise diagnosis and needful treatment

advised by the dental professional is more valuable. This study concludes that good verbal communication by dentist, investing in digital patient education at clinics, improving clinic website, customization of oral health information to the targeted groups could be the ways to combat Dr. Google.

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