

# Empowering Health Literacy Through Mass Media Platform-Perceptions and Knowledge Survey Among Outpatients in A Private Dental Institution

N. Vishal Prakasam and D. Sri Sakthi\*

Department of Public Health Dentistry, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai

## Corresponding author:

D. Sri Sakthi,  
Department of Public Health  
Dentistry,  
Saveetha Dental College,  
Saveetha Institute of Medical and  
Technical Sciences,  
Saveetha University, Chennai,  
E-mail: srisakthi@saveetha.com

Received: 28-02-2022,  
Manuscript No. AMHSR-22-55709;  
Editor assigned: 02-03-2022,  
PreQC No. AMHSR-22-53709(PQ);  
Reviewed: 16-03-2022,  
QC No. AMHSR-22-53709;  
Revision: 20-03-2022,  
Manuscript No: AMHSR-22-53709(R);  
Published: 30-03-2022,  
DOI: 10.54608.annalsmedical.2022.s1

## Abstract

**Background:** Social media has helped in creating a foundation of websites and other online tools called social networks which serves as a tool to connect people and organizations around topics of common interest. Social media platforms offer plenty of opportunities to engage quickly and sometimes in depth with a lot of information as people have the ability to communicate from anywhere in the world. As increasing numbers of people receive their news and health information online, it is important to ensure content delivered through online resources is accessible which targets large audiences and ensure that people are aware of the term health literacy. **Methods:** This survey was done by using a questionnaire that was circulated among the outpatients of a private dental institute which comprised 15 through which the knowledge of outpatients was determined. This survey included a sample size of 103 and only completely filled forms were included for this analysis. **Results:** The final analysis was obtained by using the responses of 103 outpatients using SPSS software it was observed that every individual had different opinion on health literacy but overall knowledge was fairly high and knew what had to be searched with respect to their clinical conditions. **Conclusion:** The awareness of Health literacy in an overall experience requires an underlying preference to utilize social media as a health communications medium to advance health literacy practices.

**Keywords:** Mass Media Health Literacy; Information; Communication; Social media; Innovative analysis

## Introduction

The present generation is known to be almost a human computer with a special weapon called the internet. They spend most of their time digesting the information they obtain from the media. Social media is the most powerful mode for communication because they enable children and adults to align around their personal relationships and common interests. <sup>[1]</sup> Social networks also make it easier for users to be in touch by sharing or by searching for content and updates. <sup>[2]</sup> Social media made a huge impact on people around issues that matter to them, and helped them to be connected. Being in an era of technology people now get their information(news) online, often through social media.

Social media contains websites and also various social networks which enables people and organizations to share or make content by interacting with others about topics of common interest. <sup>[3]</sup> social networks include Facebook, snapchat, Twitter, Instagram YouTube, and many more. <sup>[4]</sup> Health literacy is termed as the degree of which an individual has the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. Embracing a broader definition of health literacy. <sup>[5]</sup>

A study made by WHO and HBSC (Health Behavior of School Children) have concluded that in israeli the youth rank was the highest compared to any other countries of daily hours of screening time and children didn't spend a lot of time in

maintaining their own health and lacked physical activity and didn't have a proper diet due to that they prone to injuries. <sup>[6]</sup> The use of media like the news can help place a specific health issue and can create an agenda that exists among news reporters, scientists, and public health professionals as they seek to convey health news and information to the public, especially during a crisis. It is important to understand these tensions if the news media is to be involved in the public health system. <sup>[4,6]</sup>

Media campaigns have been used in a proper way to change various health behaviours in a large population. Some of those campaigns have most notably been aimed at tobacco use and heart-disease prevention, but have also addressed alcohol and illegal drug use, cancer screening and prevention, sex-related behaviors, child survival, and many other health-related issues. <sup>[3-7]</sup>

Typical campaigns have placed messages in media that reach large audiences, most frequently via television or radio, but also outdoor media, such as billboards and posters, and print media, such as magazines and newspapers etc. <sup>[8]</sup>

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

**How to Cite this Article:** D. Sri Sakthi, et al. Empowering Health Literacy Through Mass Media Platform-Perceptions and Knowledge Survey Among Outpatients in A Private Dental Institution. Ann Med Health Sci Res. 2022;12:S1:81-85.

Media has dominated over the years, and so has our population. It is said to be mass media when a large number of the population use it and no doubt being in a world of technology, media has made a great impact. As our population increases, chronic infections and all the health related problems also increase thus there is a decrease in doctor patient ratio and making it difficult in having a proper doctor patient communication thus, by awareness on health literacy through media can help in improving the awareness on health literacy, [9] Thus it is essential to understand and know the mindset of the public on health literacy which will provide a gateway to locate and improve the essential factors that are required which will improve the knowledge on health literacy to the general public.

Our team has extensive knowledge and research experience that has translate into high quality publications. [10-18,19-29] Hence the current study was conducted with an aim to study the perceptions regarding mass media as a platform for enhancing health literacy.

## Materials and Methods

**Study design:** A cross sectional questionnaire survey.

### Study setting

OPD Department in a private dental institution in Chennai.

### Sample size

80 out patients attending the OPD department.

### Sampling and scheduling

Owing to the nature of the study design and setting, a convenience sampling method was used. And the data was collected over a period of one month.

### Survey instrument

A pre tested and validated questionnaire was used to measure the baseline knowledge, attitude and practice regarding the pandemic and alternative therapies for the same.

### Inclusion and exclusion criteria

All those who were willing to participate were included in the study. Those who were not willing and those who had language barrier in answering the english version of the questionnaire were excluded from the study.

### Ethical clearance

Prior to the start of the study, ethical clearance was obtained from the institution ethical committee of Saveetha university

### Statistical analysis

The responses from the google sheet were transferred into an excel and were then exported to SPSS software, version 25. Descriptive statistics was done using frequency and percentage. Inferential statistics was done using Chi square test. Interpretation was based on a p value less than 0.05, which was considered statistically significant. Comparisons were done between independent variables like age, gender, occupation and knowledge, attitude practice responses by the participants.

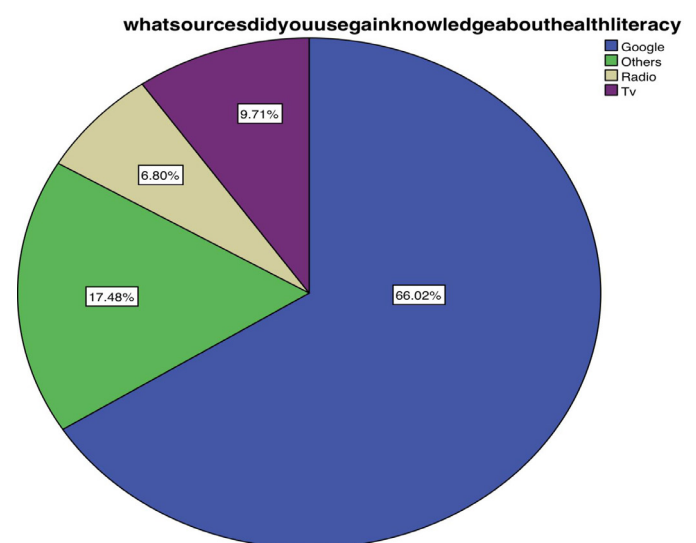
## Results

A total of 103 general outpatients participated in this study, out of these patients 68% were male and 31% of females. Out of all the patients the average age group was between 20-25 years. Gender and Age wise comparisons were made to check significance in difference in terms of knowledge, attitude and practice and it was found to be not significant. (Figure 1) and (Figure 2).

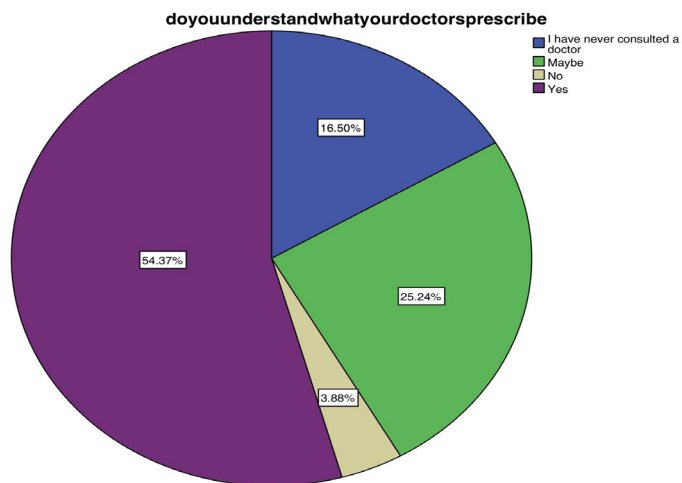
Majority of the patients participating were students with 45% (Figure 2) which is an ideal group for this study as it mainly focuses on the knowledge of health literacy among the young generation. The knowledge component revealed that 47% of the participants actually knew what is health literacy while 27% did not know the terminology while 25% had a vague idea about health literacy. As media played a vital role in understanding health literacy, 52% of the patients used the platform of media to search for symptoms related to their problem. Since a proper decision and treatment plan cannot be made on their own 82% of the participants consulted a doctor after searching their symptoms through the web.

Communication between a doctor and a patient is very much essential for the doctor to understand the actual problem and treat accordingly as per the patient's complaints 54% of the patients understood what the doctor prescribed while 25% of the patients partially understood and nearly 16% never consulted a doctor as mentioned in (figure 3 and Figure 4).

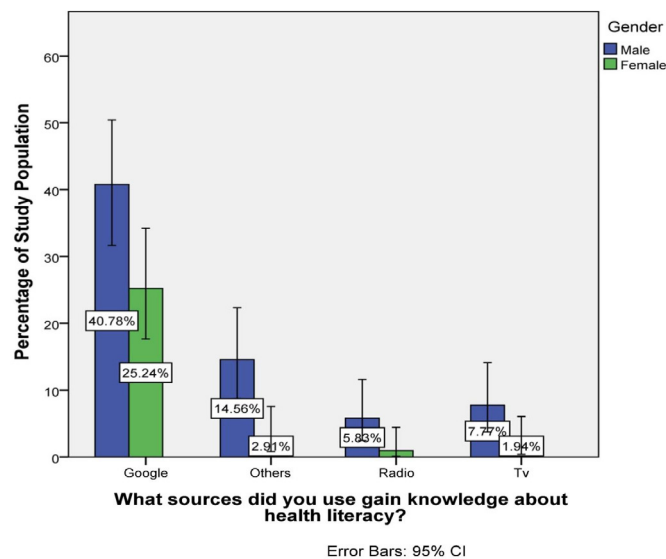
Gender and Age wise comparisons were made to check significance in difference in terms of the actual source of obtaining the knowledge on health literacy and it was found that 66% of individuals preferred google and only 10% of individuals preferred television to obtain knowledge of health literacy.



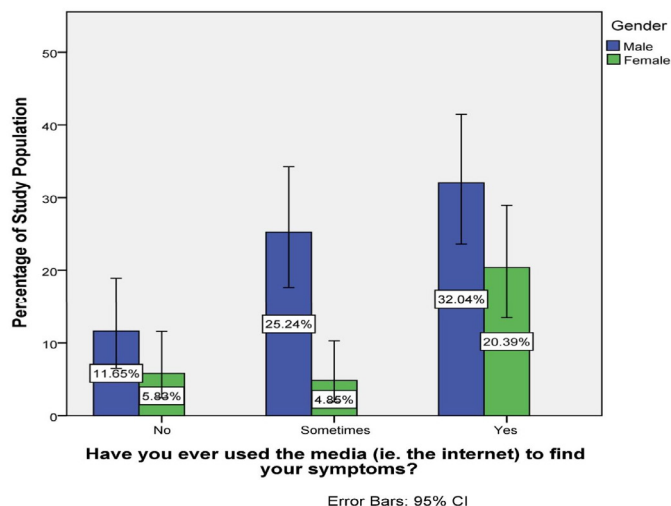
**Figure 1:** The following pie chart denotes the percentage distribution of responses related to occupation of outpatients. Blue (66.02%) denotes the percentage of the individuals using google and the green (17.48%) denotes the other modes used for obtaining knowledge on health literacy. The yellow represents (6.80%) individuals who used radio to obtain knowledge. Purple represents (9.71%) of individuals who used radio as a tool to obtain knowledge on health literacy.



**Figure 2:** The following pie chart denotes the responses related to the understanding of the patients of doctor's prescription, Blue (16.50%) denotes the percentage of patients who never consulted a doctor. Green (25.24%) denotes the percentage of patients who have a slight understanding of what the doctor prescribes. Yellow (3.88%) represents the percentage of patients who don't understand the prescription of the doctor. Purple (54.37%) represents the percentage of patients who understand the prescription of the doctor.



**Figure 4:** The following bar graph shows association between gender and percentage of patients who use the internet to search their symptoms. X-axis denotes the mass media sources. Y-axis the percentage of participants using Google as their main mass media source of information to find their medical diagnosis was over 25.24% females and 40.78% males. Blue bar represents the Male individuals, and the Green bar represents the responses of Female individuals. Hence by observing the above graph it can be inferred that, males tend to show more commitment in acquiring knowledge on some diseases through the internet this shows the level of responsibilities of males when it comes to their families. Chi square analysis was done and the association was found to be statistically not significant, p-value 0.134(p>0.05) hence statistically not significant.



**Figure 3:** The following bar graph shows association between gender and percentage of patients who use the internet to search their symptoms. X-axis denotes the usage of the internet to find medical diagnosis. Y-axis the percentage of participants using the internet to find their medical diagnosis was 32.04% males and 20.39% females. Blue bar represents the Male individuals, and the green bar represents the responses of Female individuals. In all categories of responses, males showed a high percentage compared to that of females. In those categories 32% of males responded "Yes", hence it is inferred that males try to be more cautious and try to look after their families wellbeing by doing some additional research of their own. Chi square analysis was done and the association was found to be statistically not significant, p-value 0.127(p>0.05) hence statistically not significant.

## Discussion

This study explored the different perceptions among the general public who were outpatients regarding mass media as a platform in improving and also to assess the knowledge on health literacy. In this study a total sample size of 103 outpatients with the participation of 68% male and 31% female in a private dental institute was assessed by a questionnaire. The questionnaire

contained some general questions as well as some specific questions. General questions were formulated to assess the general awareness of respondents about health literacy as well as media. [30]

Though many people feel that the media should improve awareness about health literacy, the obtained results are not statistically significant. About 28.16% females and 54.37% males felt more awareness should be provided whereas 2.91% females and 14.56% males felt that the awareness created was adequate. A previous article contradicts our result by informing us that adequate awareness about health literacy is provided by media but it depends on the each individual's capability of using media<sup>[31]</sup> in a recent study a similar question was asked with relation with source of obtaining knowledge on health literacy concluded that on Analysis of data depicted that 43.85% respondents strongly agreed that TV was the most effective media for health communication; whereas only 03.08% respondents strongly disagreed about it. On the other hand, 32.31% and 4.61% respondents had both perceptions they agreed and disagreed respectively. Interestingly 16.15% respondents were not able to decide as they neither agree nor disagree. Whereas the source of obtaining knowledge of health literacy was quite different here the use of google of 66% was more as technology has improved over the years people prefer a quick and a simple way of obtaining information in a click of a button. Only 9% of individuals questioned have seen TV to obtain knowledge on health literacy. [32]

Limitation of this study is that it was conducted as an overall

account of media including digital media, print media and new media. The present study did not account for every media, since every media has unique traits in influencing the audience. Similarly, the following study did not include any traditional media e.g. puppetry, folk shows, roadshows, traditional storytelling, debates for spreading health education interventions should be improved to include methods for improving popular health literacy through school-based health education straightly towards children and teenagers as well as more efforts made at adults.

Improved health literacy can brighten the ability and motivation of individuals to solve personal health problems by themselves by enabling them to apply skills in response to various health problems arising throughout life. Since social media are becoming popular day by day, a separate study should be proposed on the role of new media in spreading health education to our population.

More research should be proposed towards this study in order to find a link between different media and the health education among common people.

## Conclusion

This study revealed the knowledge of the general public about media's influence on health literacy. Health literacy is an important aspect of one's personality. Media being a social organization has a lot of great potential in influencing the life of people. Media plays an important role in spreading health education as it has a wide reach among the population in the world. The internet is still the most effective mode of media for health communication, and can further enhance its popularity in spreading the news on oral health hygiene.

## Acknowledgment

The authors would like to thank all the participants for their valuable support and saveetha dental college for their support in conducting the study.

## Conflict of Interest

All the authors declare that there was no conflict of interest in the present study.

## Source of Funding

NRV HOSPITAL, The present project is supported/funded/ sponsored by Saveetha Institute of Medical and Technical Sciences Saveetha Dental College and Hospitals, Saveetha University.

## References

1. Papen U. Literacy, learning and health: a social practices view of health literacy. *Literacy and Numeracy Studies*. 2009;16(2):19-34.
2. Fouad SA. Mass Media and Social Media Impact on Health Literacy of Diabetic Patients in Egypt: Assessment of Egyptian Diabetic Patients Health Literacy and Its Effect on Patient Empowerment (Doctoral dissertation, American University in Cairo).
3. Turow J. Understanding Mass Media and the Importance of Media Literacy. In *Media Today*, 2010 Update 2010;7:36-69. Routledge.
4. Howitt D. Health, Ill Health and the Mass Media. *The Mass Media & Social Problems*. 1982;157-68.
5. Payne JG, Schulte SK. Mass media, public health, and achieving health literacy. *J Health Commun*. 2003;8(S1):124-125.
6. Austin EW, Kallman DI, Kistler M. Media literacy approaches for improving youth and family health. In *International handbook of media literacy education 2017*;21:65-82.
7. Nutbeam D, Levin-Zamir D, Rowlands G. Health Literacy in Context-Settings, Media, and Populations. MDPI-Multidisciplinary Digital Publishing Institute 2019;250.
8. Prathap DP, Ponnusamy KA. Mass media and symbolic adoption behavior of rural women. *SIMILE* 2007;7:1-10.
9. Cooke-Jackson A. Health Literacy. *The International Encyclopedia of Media Literacy*. 2019;10:1-6.
10. Mathew MG, Samuel SR, Soni AJ, Roopa KB. Evaluation of adherence of Streptococcus mutans, plaque accumulation on zirconia and stainless steel crowns, and surrounding gingival inflammation in primary molars: Randomized controlled trial. *Clin Oral Investig*. 2020;24(9):3275-3280.
11. Samuel SR. Can 5-year-olds sensibly self-report the impact of developmental enamel defects on their quality of life? *Int J Clin Pediatr Dent*. 2020;31(2):285-286.
12. Samuel SR, Kuduruthullah S, Al Shayeb M, Elkaseh A, Varma SR, Nadeem G et al. Impact of pain, psychological-distress, SARS-CoV2 fear on adults' OHRQOL during COVID-19 pandemic. *Saudi J Biol Sci*. 2021;28(1):492-494.
13. Samuel SR, Kuduruthullah S, Khair AM, Shayeb MA, Elkaseh A, Varma SR. Dental pain, parental SARS-CoV-2 fear and distress on quality of life of 2 to 6 year-old children during COVID-19. *Int J Clin Pediatr Dent*. 2021;31(3):436-441.
14. Samuel SR, Acharya S, Rao JC. School Interventions-based Prevention of Early-Childhood Caries among 3-5-year-old children from very low socioeconomic status: Two-year randomized trial. *J Public Health Dent*. 2020;80(1):51-60.
15. Vikneshan M, Saravanakumar R, Mangaiyarkarasi R, Rajeshkumar S, Samuel SR, Suganya M et al. Algal biomass as a source for novel oral nano-antimicrobial agent. *Saudi J Biol Sci*. 2020;27(12):3753-3758.
16. Chellapa LR, Shanmugam R, Indiran MA, Samuel SR. Biogenic nanoselenium synthesis, its antimicrobial, antioxidant activity and toxicity. *Bioinspired, Biomimetic and Nanobiomaterials*. 2020;9(3):184-189.
17. Samuel SR, Mathew MG, Suresh SG, Varma SR, Elsubeihi ES et al. Pediatric dental emergency management and parental treatment preferences during COVID-19 pandemic as compared to 2019. *Saudi J Biol Sci*. 2021;28(4):2591-2597.
18. Barma MD, Muthupandiyani I, Samuel SR, Amaechi BT. Inhibition of Streptococcus mutans, antioxidant property and cytotoxicity of novel nano-zinc oxide varnish. *Arch Oral Biol*. 2021;126:105132.
19. Muthukrishnan L. Nanotechnology for cleaner leather production: a review. *Environ Chem Lett*. 2021;19(3):2527-2549.
20. Muthukrishnan L. Multidrug resistant tuberculosis-



- Diagnostic challenges and its conquering by nanotechnology approach-An overview. *Chem Biol Interact.* 2021;337:109397.
21. Sekar D, Preethi KA. Letter to Editor: H19 Promotes HCC Bone Metastasis through Reducing OPG Expression in a PPP1CA/p38MAPK-Dependent Manner and Sponging miR-200b-3p. *Hepatology.* 2021;74(3):1713.
  22. Gowhari Shabgah A, Amir A, Gardanova ZR, Olegovna Zekiy A, Thangavelu L et al. Interleukin-25: New perspective and state-of-the-art in cancer prognosis and treatment approaches. *Cancer Med.* 2021;10(15):5191-5202.
  23. Kamala K, Sivaperumal P, Paray BA, Al-Sadoon MK. Identification of haloarchaea during fermentation of *Sardinella longiceps* for being the starter culture to accelerate fish sauce production. *Int J Food Sci Technol.* 2021;56(11):5717-5725.
  24. Ezhilarasan D, Lakshmi T, Subha M, Deepak Nallasamy V, Raghunandhakumar S. The ambiguous role of sirtuins in head and neck squamous cell carcinoma. *Oral Diseases.* 2021.
  25. Sridharan G, Ramani P, Patankar S, Vijayaraghavan R. Evaluation of salivary metabolomics in oral leukoplakia and oral squamous cell carcinoma. *J Oral Pathol Med.* 2019;48(4):299-306.
  26. Hannah R, Ramani P, Ramanathan A, Gheena S, Ramasubramanian A, Monika K. CYP2 C9 polymorphism among patients with oral squamous cell carcinoma and its role in altering the metabolism of benzo [a] pyrene. *Oral Surg Oral Med Oral Pathol Oral Radiol.* 2020;130(3):306-312.
  27. Pc J, Marimuthu T, Devadoss P, Kumar SM. Prevalence and measurement of anterior loop of the mandibular canal using CBCT: A cross sectional study. *Clin Implant Dent Relat Res.* 2018;20(4):531-534.
  28. Wahab PA, Madhulaxmi M, Senthilnathan P, Muthusekhar MR, Vohra Y, Abhinav RP. Scalpel versus diathermy in wound healing after mucosal incisions: A split-mouth study. *J Oral Maxillofac Surg.* 2018 Jun 1;76(6):1160-1164.
  29. Mudigonda S, Murugan S, Velavan K, Thulasiraman S, Raja VK. Non-suturing microvascular anastomosis in maxillofacial reconstruction-a comparative study. *J Craniomaxillofac Surg.* 2020;48(6):599-606.
  30. Torres-Quintero A, Vega A, Gibson DG, Rodriguez-Patarroyo M, Puerto S, Pariyo GW et al. Adaptation of a mobile phone health survey for risk factors for noncommunicable diseases in Colombia: a qualitative study. *Glob Health Action.* 2020;13(1):1809841.
  31. Abel T, Hofmann K, Ackermann S, Bucher S, Sakarya S. Health literacy among young adults: a short survey tool for public health and health promotion research. *Health Promot Int.* 2015;30(3):725-735.
  32. Okocha DO. Department of Media and Mass Communication, NIMS University- J, Rajasthan, India. Church Leaders and Followers Exchange in Africa: A Media Phenomenological Analysis. *Int J Trend in Scientific Res Develop.* 2017;1:144-151.