

A study on Attitude and Awareness of people regarding the usage of mouthwash in India

Dissertation Submitted to



The IIHMR University, Jaipur

For the partial fulfillment for the award of the degree of

Master of Business Administration (MBA)

in

Hospital and Health Management

by

URVASHI JAIN

Under the Supervision and Guidance of

Dr. Deepti Sharma

2021

Table of Contents

- ❖ Acknowledgment
- ❖ Topic
- ❖ Abstract
- ❖ Introduction
- ❖ Review of Literature
- ❖ Methodology and data collection
- ❖ Results
- ❖ Discussions
- ❖ Conclusion
- ❖ References

ACKNOWLEDGEMENT

With profound sense of gratitude and regards, I express my sincere thanks to my guide and mentor Dr. Deepti Sharma , for her valuable guidance and the confidence she developed in me , that helped me in the successful completion of the Dissertation ,her thorough understanding of the subject and professional guidance was indeed of immense help to me . I am also greatly thankful for her keen interest, inspiring guidance, constant encouragement with my work during all stages, to bring this Dissertation into fruition

**A study on Attitude
and Awareness of
people regarding the
usage of mouthwash in
India**

DECLARATION BY STUDENT

I hereby declare that this dissertation titled A STUDY ON ATTITUDE AND AWARENESS OF PEOPLE REGARDING THE USAGE OF MOUTHWASH IN INDIA is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.



Name of Student

URVASHI

JAIN

Date: 1/07/2021

CERTIFICATE

This is to certify that **Urvashi Jain** in partial fulfillment of the requirements for the award of the degree of **MBA (hospital and health management)** from the IIHMR University, Jaipur has successfully completed her internship at **Group Pharmaceuticals** during March 22, 2021 to June 19, 2021.

Place: Bengaluru
Date: 29-06-2021



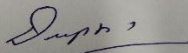
Mr. Laxmikant P Sugandhi
Associate Vice President- Sales and Marketing
Group Pharmaceuticals

Certificate from Faculty Guide and School Dean

CERTIFICATE

This is to certify that dissertation titled A STUDY ON ATTITUDE AND AWARENESS OF PEOPLE REGARDING USAGE OF MOUTHWASH IN INDIA is a record of the research

work undertaken by URVASHI JAIN in partial fulfillment of the requirements for the award of the degree of MBA Hospital and Health Management from the IIHMR University, Jaipur under my guidance and supervision and his/her approach to the research study has been sincere, scientific, and analytical.


● ● ● ●
111111 1111 1111

Dr. Deepti Sharma
Faculty Guide
IIHMR University, Jaipur
Date – 2-07-2021

School Dean
IIHMR University, Jaipur

Date

ABSTRACT

In this study it shows the Attitude and awareness towards mouthwashes and uses among Dentist, graduates and postgraduates students and professionals, in this study the methodology is used both primary research data analysis and secondary research, review of literature has been taken from certain studies on mouthwashes, uses and knowledge among people and dentist and professional and in different degree courses also. In the primary research questionnaire is on the different social media platform and share on the Whatsapp and then data analysis taken place after the responses received and in the secondary research analytical study which is using qualitative method of study, the research design is based on the literature review and there are few articles has been studied for this

study This study has used secondary data for the interpretation of the results also The secondary data is collected from the literature reviews and the health providers and patients and different healthcare organization and also from the Google scholar, pub med. The result of the study shows with primary data collection or analysis is that the 108 people give responses in which 46% are male and 54% are females and 42% are BDS and 36% are MDS , most preferred brand for mouthwash is Listerine and Betadine , 60% people think mouthwash can be used regularly and most of the people use mouthwash because of reduce bad breath and they think twice a day use of mouthwash will be more good , and 52% people think mouthwash helps in improvement of oral health problems, and conclusion also based

on the primary and secondary
research and data analysis.

Keywords- mouthwashes, awareness,
halitosis and oral health problems

INTRODUCTION

Improper oral hygiene plays main role in etiology of the formation of dental plaque which further leads to gingival inflammation, redness and swelling and destruction of periodontal tissue. Brushing the tooth on regular basis is the main method of removing supragingival plaque and interdental brushes are used to remove the plaque formed in between the teeth and mouthwash are an important thing in reduction in levels of supragingival plaque and reduce its formation and also prevent the formation of periodontitis and gingivitis . Mouthwashes must be used as together to mechanical brushing because mouthwashes have good penetrating abilities and they must not be considered as substitutes for mechanical plaque disruption. Dental plaque is a complex microbial biofilm growing on the tooth surface.

Plaque is formed by the deposition of cell-free pellicle which is colonized by microorganisms such as *Streptococcus mutans*, Lactobacilli, and many other species and subspecies of both Gram-positive and Gram-negative microorganism. Plaque control is the removal of microbial plaque from the surface of the teeth and preventing the accumulation of plaque from the tooth surfaces. Plaque is an adherent deposit on the teeth which could resist the masticatory forces, dental plaque forms if tooth brushing is stopped for 12–24 h and it has been established that dental plaque is the main etiological agent of periodontal disease. Plaque control plays an important role in prevention of periodontal diseases. The two main mechanisms of plaque removal are mechanical removal of plaque which includes tooth brushing and

interdental cleaning aids and usage of chemical agents in removing plaque or also use of mouthwash helps on removing food debris and removes stains also.

Mouthwashes are having different ingredients and formulations that are used in the improved and proper good oral hygiene and are safely used in the treatment of patients with gingivitis, diabetic, patients under chemotherapy periodontitis, , also in pregnant patients and patients with implants, post-surgical (oral) patients, patients who have dry sockets. A mouthwash which play a very significant role in removal of plaque and food debris also helps in the halitosis is usually left behind after mechanical tooth brushing. Study among the dentist graduates

and undergraduates students in the dental college and other degree course will help in knowing the trends among dentist regarding using, knowledge and awareness on mouthwashes. Usually mouthwashes are antiseptic solutions intended to reduce the microbial load in the oral cavity, although other mouthwashes might be given for other reasons such as for their analgesic, anti-inflammatory or anti-fungal action. Cosmetic mouth rinses temporarily control or reduce bad breath and leave the mouth with a pleasant taste. Patients and oral health practitioners are faced with a multitude of mouthwash products containing many different active and inactive ingredients.

Review of literature

- ✓ In this literature review The purpose of the research is to comprehend the use as well as the perception of mouthwash benefits a questionnaires were distributed following convenience sampling to 400 respondents in public places There was a high level of awareness among the respondents regarding the use of mouthwash where more than 57% answered the knowledge questions correctly. This article is published in December 2016 The public needs to be educated on the role of mouthwash. Knowledge gaps on

mouthwash need to be
bridged to ascertain the
beneficial nature of
mouthwash.

- ✓ In this literature review Ashank Mishra, Jyotsna Amalakara, Haritha Avula and Krishnajaneya Reddy in their article Effect of Diclofenac Mouthwash on Postoperative Pain after Periodontal Surgery first published on April 2017 in this study Effect of Diclofenac Mouthwash on Postoperative Pain after Periodontal Surgery The mouthwash group patients were advised to rinse undiluted 15 ml solution for 30 secs, twice daily for three days. Mouthwash group comparisons showed a significant reduction in pain, post surgery. stating

that mouthwash is as effective as oral administration. Mouthwash is a better alternative to the systemic administration post surgery, in terms of patient acceptance and to minimize the adverse effects of orally administered drug

- ✓ In this literature review Dr. Richard Pereira Vijay K. Chava in their article Efficacy of a 3% Potassium Nitrate Desensitizing Mouthwash in the Treatment of Dentinal Hypersensitivity the first published on December 2001 in this study the Efficacy of a 3% Potassium Nitrate Desensitizing Mouthwash in the Treatment of Dentinal Hypersensitivity potassium nitrate has been used previously in a dentifrice or gel to alleviate dentinal hypersensitivity. This study showed that a 3% potassium

nitrate/0.2% sodium
fluoride mouthwash appears
to have therapeutic potential
to alleviate dentinal
hypersensitivity. So as the
customer perception of
using mouthwash reduces
the disease or the dental
hypersensitivity

Material and method

The subjects of the study were Attitude and awareness towards mouthwashes and uses among Dentist, graduates and postgraduates students and professionals was presented in the form of questionnaire.

An online questionnaire in the form of Google forms was prepared and was updated on different social media platform. The questionnaire consisted of 10 questions which were used from a self-constructed questionnaire. The analysis of the questionnaire done in excel sheets and data mining done in the format only and the result is displayed in graph and pie charts The questionnaire was typed in English. The subjects were asked to respond to

the questionnaire given to them. and fill all the responses

This study also as proposed has analytical study which is using qualitative method of study, the research design is based on the literature review and there are few articles has been studied for this study The research has used secondary data for the interpretation of the results The primary data is collected from the questionnaire prepared and the secondary data is collected the health providers and patients and different healthcare organization and also from the Google scholar, pub med.

For the primary data collection the questionnaire the response format had choices from which the subjects can choose their answers from the options given. The questionnaire was developed to gain demographic

information, information on knowledge, attitude, and awareness towards mouthwashes and uses among Dentist, graduates and postgraduates students and professionals, this study is fully based on primary data collection but the literature review is from the secondary research.

RESULTS

In the result there is data analysis of every question that is asked in the questionnaire in the form of pie charts, graphs and columns.

In the result every question answer in the detailed form, which gives that 24 years and 25 years people are more into this study, in which 46% are male and 54% are female , most of the people are MDS and BDS , and in this most people are aware of Listerine and beta dine mouthwash , most of the participant think mouthwash can be used regularly and they use that particular because , it is cost effective and taste is good while for reducing the bad breathe and reduce the plaque formation . And most participants uses mouthwashes twice a day and most

of them think oral health can be
reduced by the use of mouthwash.

QUESTION 1

What is your age?

The average age of the participants who participated in this study was 21–27 years.

The maximum number of people is the age of 24 years that is 30 and the second highest number of the of the people in the age of 25 years , that is 23 and 27 years of people are 8, total 108 people participated in the study. It shows that maximum people are in the age of 24 that is graduates year of any professional degree

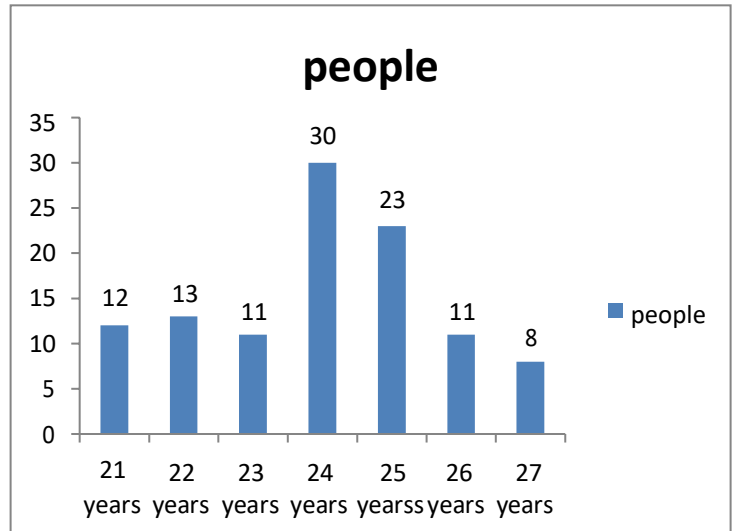


Image 1 - shows these are the people who are participated in the study

QUESTION 2

What is your gender?

- a) Male**
- b) Female**
- c) Other**

After the responses has been taken from the people, in this study, a total of 108 people participated,

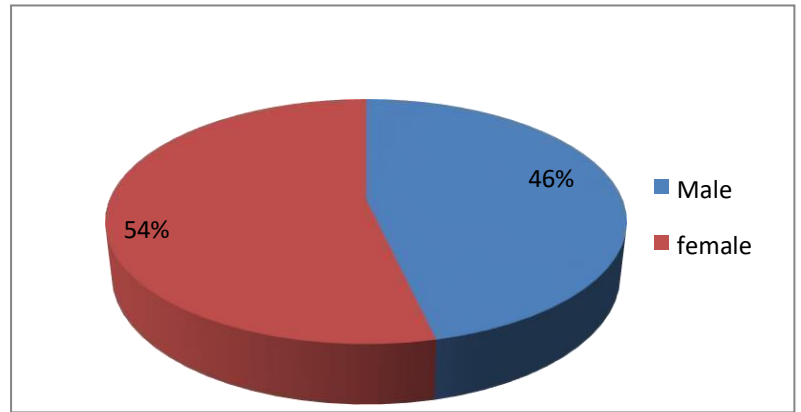


Image 2 shows how many females and males are participated

As data is collected when the questionnaire is that shows in the pie chart below that in 108 people, 46% are males who are participated in this study

And 54 % are the female who gave responses

Question 3 –

What is your Qualification?

- a) BDS**
- b) MDS**
- c) Dental experience 1-3 years**
- d) Other degree course**

As out 108 people, 42% of respondents are BDS while other 36% are the MDS , who in initial years of their practice , and 19% of the 2-3 years of experience in dental professionals

Least is 3% who has other degree courses

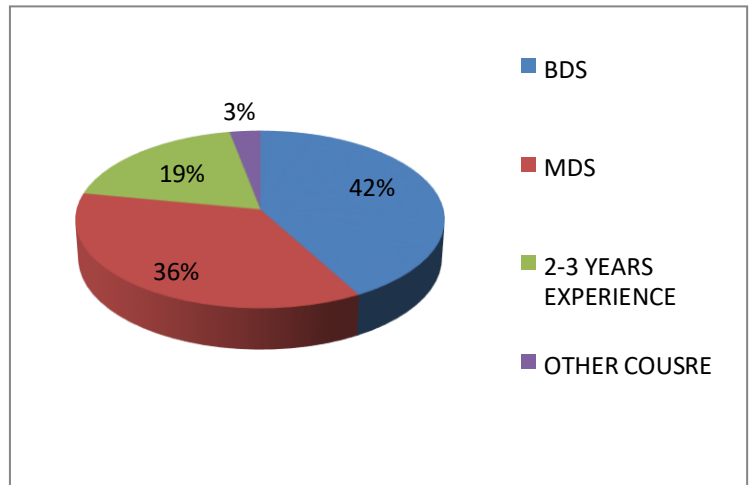


Image 3 – shows how many percent are MDS , BDS or other dental professional

QUESTION 4

What are the brands you are aware of mouthwashes

- a) Listerine**
- b) Betadine**
- c) Colgate Plax**
- d) Others**

So most of respondents are aware of Listerine like 61.40% people aware about Listerine

While Beta dine is also known by people 20.70% people have knowledge about beta dine also.

13.10% are aware of Colgate Plax

This below pie chart show the respondents results

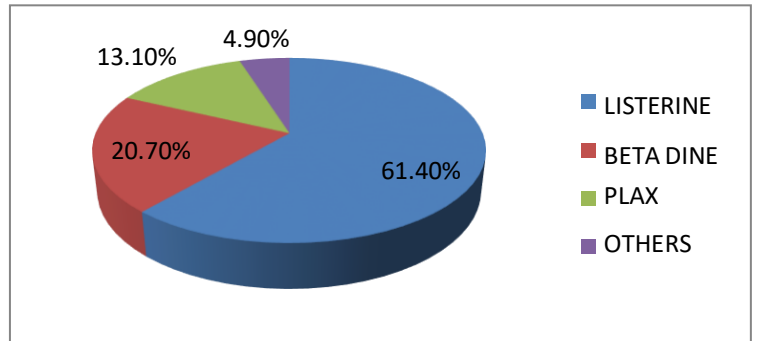


Image 4 – Shows that which brand prefer by all the people who are participated in the study

QUESTION 5

Do you think that mouthwashes can be used regularly?

- a) **Yes**
- b) **No**
- c) **May be**

60.70% people think that mouthwash should be used regular while other 21.40% thinks mouthwash cannot be used regularly.

While other 17.90% people think may or may not be sued the mouthwash regularly.

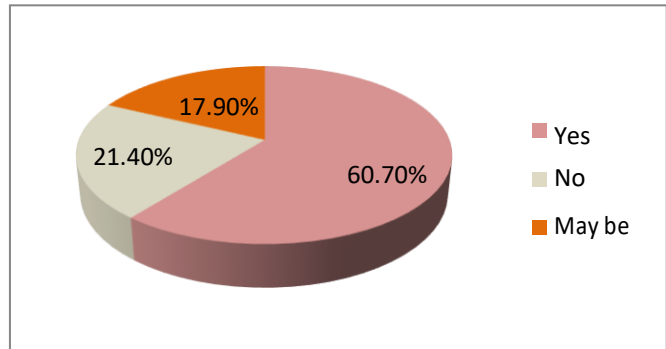


Image 5 This pie chart show the how many people think mouthwash can be used regularly or not.

Question 6

If yes then why do you prefer a particular brand mouthwash?

- a) Effective action**
- b) Cost effective**
- c) Taste is good**
- d) Easily available**

42.60% participates cost effective they want the cheapest mouthwash for using , while 33.60% thinks mouthwash will be good in taste , they buy the mouthwash because of the pleasant taste and while

15% people prefer who is readily available that time.

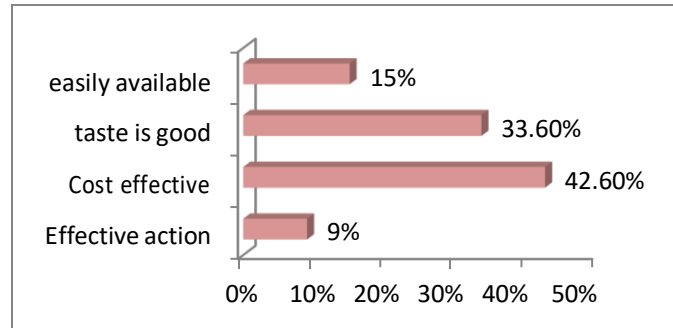


Image – 6: this bar graph shows cost effective mouthwash is preferred by people.

Effective action is people least expectation from mouthwash, that is 9% only while people most go for the taste and cheap.

Question 7

In your opinion what do you think mouthwash does?

- a) Reduce plaque formation**
- b) Helps in improve your gum condition**
- c) Reduce bad breathe**
- d) Other**

40.30% uses mouthwash to reduce bad breath, because bad breath is indication of bad oral hygiene so people are more concentrated on bad breathe,

32% people think it reduces plaque formation.

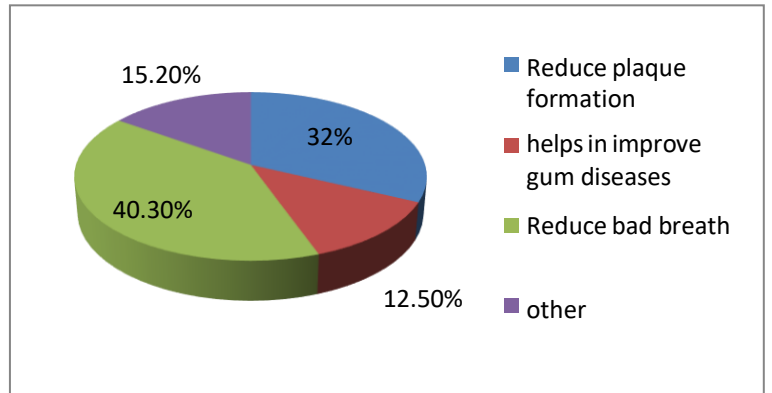


Image 7: this pie chart shows what people thinks what mouthwash does.

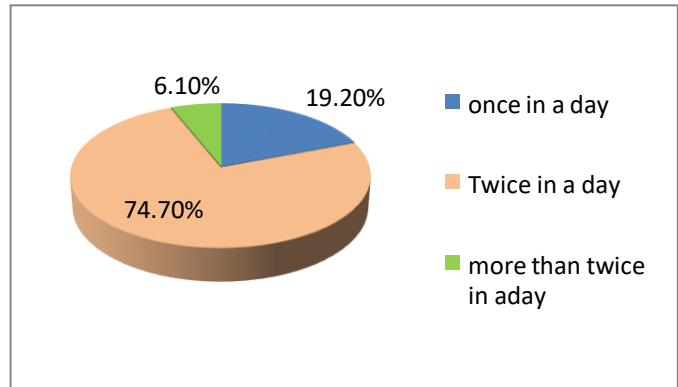
QUESTION 8

**How many times do you think
mouthwash can be used in a day?**

- a) Once in a day**
- b) Twice in a day**
- c) More than twice a day**

74.70% uses mouthwash twice a day,
and 19.20% people uses mouthwash
once in a day.

People thinks mouthwash is helpful
is if they used twice a day



**Image 8 : mouthwash uses by
people in a day**

QUESTION 9

In your opinion in which case you prefer to use mouthwash?

- a) Gingivitis**
- b) Periodontitis**
- c) Bad breathe**
- d) Mouth ulcers**
- e) Dental caries**
- f) Others**

32.20% people thinks mouthwash preferred in bad breath , while

31..50% prefer mouthwash in gingivitis (inflammation of gums) while other 21.20 using the mouthwash in periodontitis which is serve than gingivitis,

While others people think that mouthwash is preferred in such condition like mouth ulcers , dental caries and other oral diseases

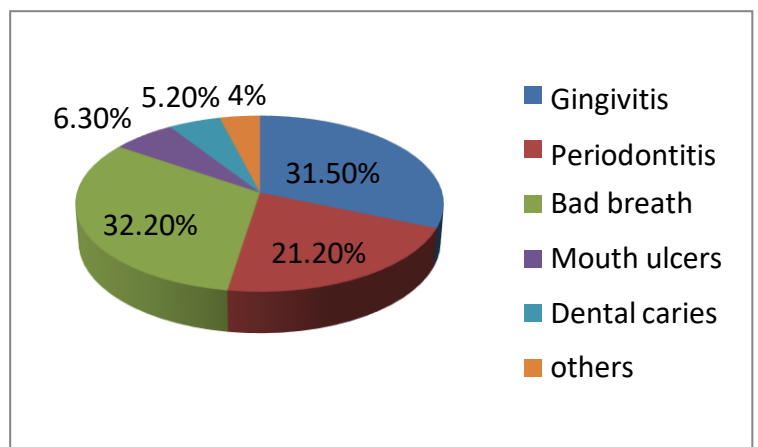


Image 9 : Preference of people using mouthwash

QUESTION10

**Do you think using mouthwashes
can improve oralhealth of patients**

- a) Yes**
- b) No**
- c) May be**

About 52.10 % of the participants think that using mouthwashes can improve oral health of the people , whereas the other 44.20% of the people trusts that mouthwashes not increases or improve the oral health condition

While 3.70% may or may not be improve oral health conditions of the people .

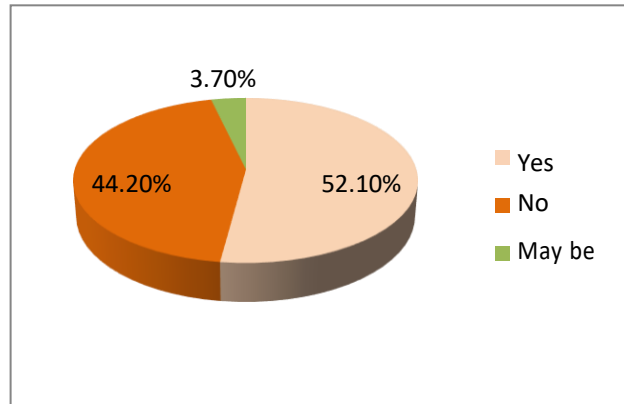


Image 10- if respondents oral health condition improved by using mouthwash

DISCUSSION

Mouthwashes are used as partially in the treatment of gingivitis pre-post-surgery and periodontitis, mouthwash can be used as a readily easily available and an easy normal remedy to treat oral problem and periodontal disease is one of the major oral health problems that affect most of the population. Plaque control is removal of plaque and prevention of plaque accumulation on teeth. There are two types of plaque removal, mechanical plaque removal and chemical plaque removal. Chemical plaque reduce partial remove by the use of mouthwashes. Mouthwashes are chemical formulations used in the reduction of plaque formation. Plaque is left behind after mechanical plaque removal due to partial or not enough tooth brushing, therefore, mouthwash

which is a chemotherapeutic agent has an adjunctive role in preventing periodontal diseases and other dental diseases, these mouthwashes must be recommended by dentists to their patients. In a study done in the UK done by Ciancio et al., nearly 68% of the dentist encourage and prescribe using mouthwashes at least once a day, whereas 74% of the dentist prefer prescribing mouthwashes twice a day in this study. Mouthwash has immediate bactericidal activity. Daily rinsing with mouthwashes leads to reduce the mouth inflammation but it has some side effects such as staining of teeth or sometimes leads to sensitivity and oral mucous membrane and some mouthwash has pleasant taste after use. Most of the mouthwashes contain alcohol which on long term use can cause oral cancer and little penetrance

into the subgingival environment are some of the concerns of dentist while using and prescribing mouthwashes. Even though mouthwash rinsing is also involved with behavioral, health and socioeconomic factors, it is the responsibility of the individual and prescriber in maintaining the general oral health of the patients in a community. The knowledge, attitude, and practice among dentist in prescribing mouthwashes help as a useful guide in determining the prescribing trends of mouthwashes among graduates, post graduates and dental professionals.

CONCLUSION

In this study, 60.40% Listerine is used by the patients or the participants , 60.70% used mouthwash regularly because in their opinion that is 42.60% participants thinks it cost effective , cheap and 33.60% used due to pleasant taste , 40.30% reduces bad breath and overcome patients from halitosis and gingivitis and preferred for periodontitis and 74.70% people used twice a day mouthwash can be used twice a day this much of participants thinks that and 52.10 % people thinks it improves oral health condition

REFERENCES

1. Kornman KS, Löe H. The role of local factors in the etiology of periodontal diseases. *Periodontol* 2000 1992;83-97.
2. Eley BM. Periodontology: Antibacterial agents in the control of supragingival plaque a review. *Br Dent J* 1999;186:286.
3. Daly CG. Prescribing good oral hygiene for adults. *Aust Prescr* 2009;32:73.
4. Moran JM. Home-use oral hygiene products: Mouthrinses. *Periodontol* 2000 2008;48:42-53.
5. Bowen WH. Nature of plaque. *Oral Sci Rev* 1976;9:3-21.
6. Ravikumar C, Arjunkumar A.

Strategies to control dentalplaque
biofilms-a review. Int J Pharm Bio
Sci 2017;8:379-84. 7. Ira BL,
Michael CA, Mia CS.
Microbiology of plaque associated
periodontal disease. J Clin Prev
Dent 1983;56-7. 8. Cawsons RA.
Essentials of Dental Surgery. 5th
ed. New York: Churchill
Livingstone; 1991. p. 67-71.

9. Das T, Ramesh A, Muralidharan
NP. Comparison of antibacterial
efficacy of three mouthwashes in
chronic periodontitis patientsan in
vitro study. Drug Invent Today
2018;10:1564-8.

10. Aregeth M. Antimicrobial
Effect of Chemical Agents on
Periodontitis. American Dental
Association Guide to Dental
Therapeutics; 2002. p. 19-23. 11.
Ciancio SG, Bartz NW, Lauciello
FR. Aspects of systemic health. J

Period Health 1999;19:37-9.

12. Jenkins A, Wade W. Effect of Chlorhexidine on Subgingival Microbial Colonization; Department of Periodontology. Wales: University of Wales; 1983. p. 77-8.

13. Lang N, Brex MC. Chlorhexidine digluconate an agent for chemical plaque control and prevention of gingival inflammation. J Period Res 1986;21:74-89.

14. McCullough MJ, Farah CS. The role of alcohol in oral carcinogenesis with particular reference to alcohol-containing mouthwashes. Aust Dent J 2008;53:302-5.

15. La Vecchia C. Mouthwash and oral cancer risk: An update. Oral Oncol 2009;45:198-200.

16. Winn DM, Diehl SR, Brown LM, Harty LC, Bravo-Otero E, Fraumeni JF Jr, et al. Mouthwash in the etiology of oral cancer in Puerto Rico. *Cancer Causes Control* 2001;12: 419-29.

17. Prüss A, Kay D, Fewtrell L, Bartram J. Estimating the burden of disease from water, sanitation, and hygiene at a global level. *Environ Health Perspect* 2002;110:537-42.

18. Macfarlane TV, Kawecki MM, Cunningham C, Bovaird I, Morgan R, Rhodes K, et al. Mouthwash use in general population: Results from adult dental health survey in Grampian, Scotland. *J Oral Maxillofac Res* 2011;1:e2.