

Original Research

Knowledge And Attitude Among Adults Towards Advertisement Related To Dental Products - A Cross Sectional Study Amid Keralites

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ABSTRACT

AIM: To assess the attitude and knowledge regarding advertisement about dental products among adults visiting outpatient department of a dental college in Trivandrum district.

METHODOLOGY: A cross sectional questionnaire survey was conducted among adults aged ≥ 18 years visiting outpatient department of Oral Medicine and Radiology of Sri Sankara Dental College, Trivandrum, regarding knowledge and attitude towards advertisements related to dental products. Descriptive statistics and chi square tests were used to analyse the collected data.

RESULTS: Most of the participants have watched and preferred television as the source of dental advertisement. They analyse a product based on its price, ratings and reviews rather than the external appeal of the same.

CONCLUSION: Advertising is a powerful tool that helps to inform customers about the product, attract them and built their trust. Word of mouth and hype is valuable for advertising.

INTRODUCTION

Education of people regarding the importance of oral hygiene maintenance, proper selection of oral hygiene products and the alternatives available in the market is essential. Most people's choice of dental products is based on taste, design or cost rather than the oral benefits it provides. There are number of oral hygiene products in the market and it becomes arduous for the people to ascertain which is more beneficial [1].

Advertising is any paid promotion of a product, service or idea meant to influence one or more people. Advertising is a powerful tool that helps to attract consumers, inform them about the products and services and to build consumer trust. It can take place on several mediums, such as print, radio, television and digital media. The main goal of advertising is to persuade someone to buy a product or perform an action. Advertisement can increase familiarity and trust between a company and its customers. If a potential customer sees multiple ads about a product, they may consider them as a trusted brand.

Advertising can be classified into two categories: brand building and directional. Brand building advertising is synonymous with product advertising and is commonly

seen in traditional mass media including television, radio, magazines and newspapers. Brand building advertisements tend to be product/service oriented with the purpose to establish a positive image and creating demand for a product or service that leads to eventual purchase. The communication route is typically one to many and is designed to reach a mass audience. Directional advertising is designed to help potential buyers locate interesting information. The communication route is typically one to one. Studies into the impact of advertising typically focus on three kinds of effects: cognitive, affective and behavioral [4].

Through this study we are trying to find out the attitude and knowledge of patients, regarding dental advertisements and also to evaluating patients positive and negative attitude towards the same. Advertisements in general, affects the point of view of a consumer about a product. In this research we give emphasis on how advertisements affect point of view of a patient towards dental products.

MATERIALS AND METHODOLOGY

This is a cross sectional study conducted between October 2022 to November 2022 to assess the knowledge and attitude among adults towards

advertisement related to dental products. Participants were selected using convenience sampling.

INCLUSION CRITERIA

The Study was conducted among out patients visiting OMR Department of Sri Sankara Dental College. The questionnaire was sent to 200 patients \geq 18 years of age. All patients who consent to participate and submit the response was included in the study.

EXCLUSION CRITERIA

Participants who did not consent to the survey were excluded from the survey.

METHODOLOGY

A cross sectional survey was conducted among out patients visiting OMR Department of Sri Sankara Dental College from October to November 2022. All patients \geq 18 years of age and consent to participate were included in the study. The study was conducted through questionnaire consisting demographic data (name, age, sex occupation, address) and 15 structured questions regarding the attitude and knowledge regarding advertisements about dental product. The participants were asked to choose an appropriate response to each question from the set of options provided under each question and the questionnaire was collected back.

STATISTICAL ANALYSIS

Data was collected from the questionnaires in excel sheet and was analyzed using SPSS software version 25.0. The data was analyzed using descriptive statistics and association among the variables were done using chi square test.

RESULT

The study was completed with 200 response of which 25% of participants belong to 18-25 years while 26% were from the age group 26-44 years and 45-59 years each and 23% from age group 60 and above (figure 1). Figure 2 shows frequency of gender distribution. Of them 56% of respondents were females and 44% were males. Among the respondents 2% holds professional or honors certificate, 16% were graduates, 22% have diploma or intermediate, 46% were high school

graduates, 6% holds middle school certificate while 1% of participants have primary school certificate and 8% of participants were illiterate (figure 3). Figure 4 shows the occupation of the participants, among the respondents 1% includes legislators, senior officials and managers and 12% participants were professionals. Of the respondents 5% are technicians and associate professionals, while 1% participants were clerks and 15% of participants include skilled workers and shop and market sales workers and 1% respondents are skilled agricultural and fishery workers. Of the participants 1% are craft and related trade workers and 1% of participants are included in plant and machine operators and assemblers, while 1% of participants do elementary occupation and the remaining 65% are unemployed.

Table 1 shows frequency and percentage of knowledge and attitude of adults towards advertisement related to dental products. 100% of participants had told that they have watched advertisement related to dental products. 131 participants had told that they saw the advertisement in last one week. Of them 69% said that they watched advertisement in television. The medium of preference for 56% of population is television. 55.5% of population prefer a dental product by word of mouth. Before purchasing a dental product 42.5% of population always look for ratings and reviews. 54% of respondents have come across new dental products through advertisement. 73.5% of population like to see price details in the advertisement. 53% population doesn't buy any dental product after watching dental advertisement and among these 34% population is not willing to recommend dental product based on advertisement. 76.5% of population doesn't prefer products based on its external appeal. 62.5% of population prefer a product based on price and discount. 43% of population are tempted by other reasons to buy dental products other than attractive advertisement, favorite models and trying out new products. Of 51% of respondents the chance of buying the product increases, if it is bundled with a freebie. 73% of respondents didn't receive any dental products as a part of advertisement.

Table 2 compares the attitude of adults towards dental advertisement according to their gender and age distribution. 89.1% of population with age more than 60 years watched dental advertisement through television. On the preference of advertisement medium, 73.9% of 60 years and above aged population prefer television. 73.9% of population of age above 60 years

TABLES AND FIGURES

FIGURE 1: FREQUENCY OF AGE DISTRIBUTION

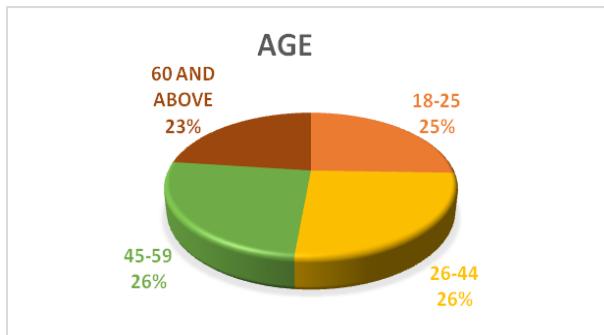


FIGURE 2: FREQUENCY OF GENDER DISTRIBUTION

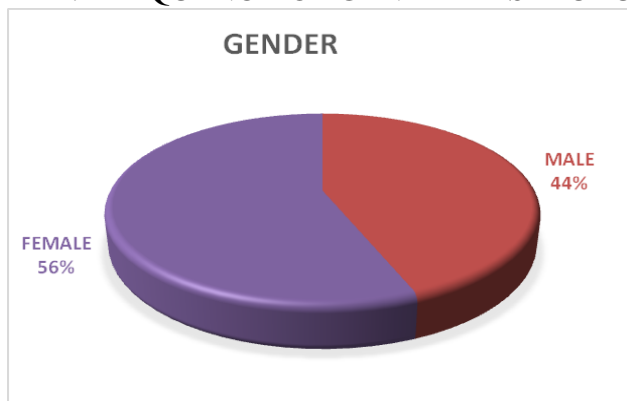


FIGURE 3: FREQUENCY OF EDUCATION DISTRIBUTION

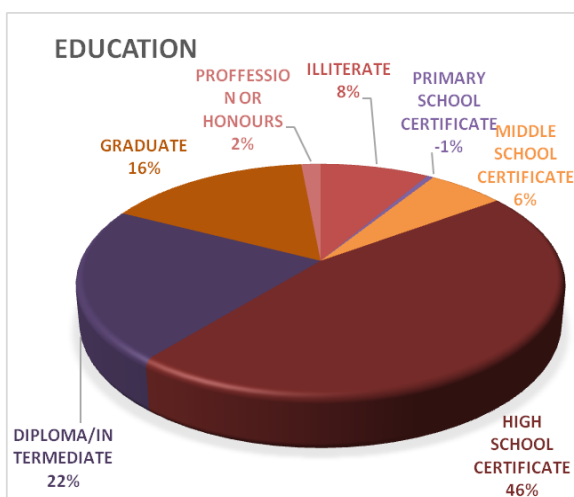


FIGURE 4: FREQUENCY OF OCCUPATION DISTRIBUTION

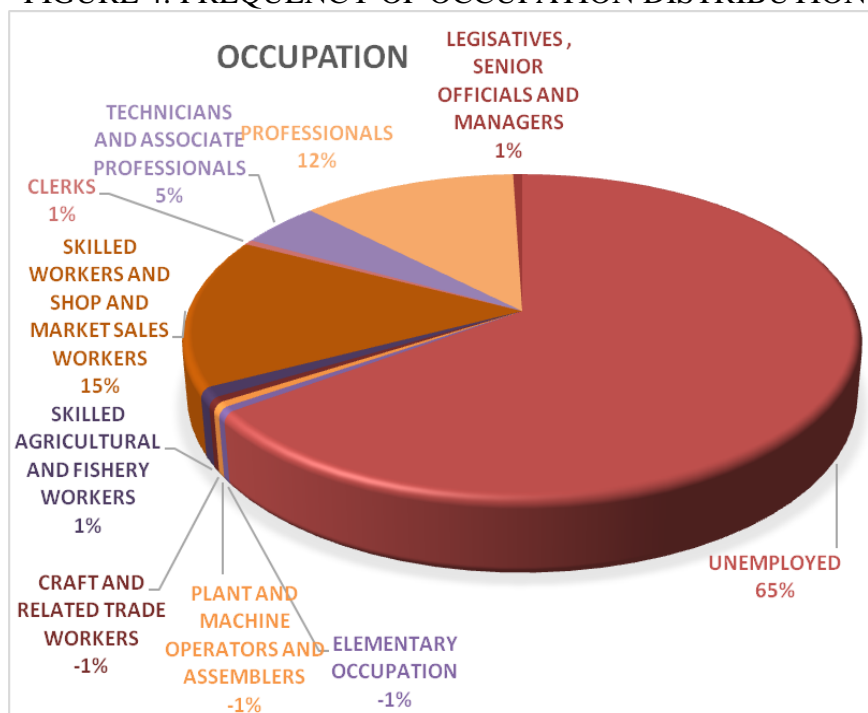


TABLE 1: FREQUENCY AND PERCENTAGE OF KNOWLEDGE AND ATTITUDE OF ADULTS TOWARDS ADVERTISEMENT RELATED TO DENTAL PRODUCTS

SLNO			FREQUENCY	PERCENTAGE (%)
1	Have you watched any advertisement related to dental products in past?	NO	0	0
		YES	100	100
2	If yes, when was the last time you saw an ad related to dental products?	1 WEEK BACK	131	65.5
		1 MONTH BACK	33	16.5
		3 MONTHS BACK	16	8.0
		6 MONTHS AND MORE	20	10.0
3	which of the following modes have you watched the dental ad	DIGITAL	50	25.0
		PROFESSIONAL MAGAZINES	4	2.0
		NEWSPAPERS	5	2.5
		BANNER	3	1.5
		TELEVISION	138	69.0
4	what kind of advertisement medium	NEWSPAPER	14	7.0
		PROFESSIONAL	7	3.5

	do you prefer?	MAGAZINES		
		TELEVISION	112	56.0
		DIGITAL ADVERTISEMENT	67	33.5
5	would you prefer dental products by watching an advertisement or by word of mouth?	WORD OF MOUTH	111	55.5
		ADVERTISEMENT	89	44.5
6	before purchasing a dental product do you look for ratings and reviews?	ALWAYS	85	42.5
		SOMETIMES	58	29.0
		NEVER	57	28.5
7	have you come across any new dental products through advertisement	YES	108	54.0
		NO	92	46.0
8	would you like to see price details about a dental product in advertisement	YES	147	73.5
		NO	53	26.5
9	Have you bought any dental products in the past, after watching an advertisement?	YES	94	47.0
		NO	106	53.0
10	If yes, how lightly are you to recommend a dental product based on dental advertisement	HIGHLY LIKELY	37	18.5
		MOSTLY LIKEY	42	21.0
		MODERATELY LIKELY	43	21.5
		NOT LIKELY	68	34.0
		HIGHLY UNLIKELY	10	5.0
11	would you prefer the product based on the external appeal of the product?	YES	47	23.5
		NO	153	76.5

12	would you prefer a product based on the price and discount?	YES	125	62.5
		NO	75	37.5
13	what tempt you to buy dental products after watching an advertisement?	ATTRACTIVE ADVERTISEMENT	26	13.0
		FAVOURITE MODELS	12	6.0
		I LIKE TO TRYOUT A NEW PRODUCT	76	38.0
		OTHER REASONS	86	43.0
14	will the chance of buying a product increase if it is bundle with a freebie?	YES	102	51.0
		NO	98	49.0
15	have you ever received a free dental product as a part of advertisement?	YES	54	27.0
		NO	146	73.0

TABLE 2: COMPARISON OF GENDER AND AGE WITH ATTITUDE OF ADULTS TOWARDS DENTAL PRODUCT ADVERTISEMENT

		AGE				P VALUE	GENDER		P VALUE
		18-25	26-44	45-59	60 AND ABOVE		MALE	FEMALE	
If yes, when was the last time you saw an ad related to dental products?	1 WEEK BACK	51%	75%	64.7%	71.7%	0.123	59.1%	70.5%	0.054
	1 MONTH BACK	17.6%	17.3%	19.6%	10.9%		18.2%	15.2%	
	3 MONTHS BACK	13.7%	5.8%	3.9%	8.0%		13.6%	3.6%	
	6 MONTHS AND MORE	17.6%	1.9%	11.8%	10.0%		9.1%	10.7%	
which of the following modes have you watched the dental ad	DIGITAL	39.2%	32.7%	15.7%	10.9%	0.001*	33%	18.8%	0.117
	PROFESSIONAL MAGAZINES	3.9%	1.9%	2%	0%		2.3%	1.8%	
	NEWSPAPERS	7.8%	0%	2%	0%		2.3%	2.7%	

	BANNER	3.9%	0%	2%	0%		0%	2.7%	
	TELEVISION	45.1%	65.4%	78.4%	89.1%		62.5%	74.1%	
what kind of advertisement medium do you prefer?	NEWSPAPER	7.8%	5.8%	3.9%	10.9%	0.0*	11.4%	3.6%	0.074
	PROFESSIONAL MAGAZINES	3.9%	5.8%	2.0%	2.2%		3.4%	3.6%	
	TELEVISION	19.6%	63.5%	68.6%	73.9%		47.7%	62.5%	
	DIGITAL ADVERTISEMENT	68.6%	25.0%	25.5%	13.0%		37.5%	30.4%	
would you prefer dental products by watching an advertisement or by word of mouth?	WORD OF MOUTH	41.2%	48.1%	60.8%	73.9%	0.006*	62.5%	50%	0.077
	ADVERTISEMENT	58.8%	51.9%	39.2%	26.1%		37.5%	50%	
before purchasing a dental product do you look for ratings and reviews?	ALWAYS	56.9%	50.0%	33.3%	28.3%	0.053	46.6%	39.3%	0.476
	SOMETIMES	23.5%	26.9%	35.3%	30.4%		25%	32.1%	
	NEVER	19.6%	23.1%	31.4%	41.3%		28.4%	28.6%	
have you come across any new dental products through advertisement	YES	41.2%	55.8%	60.8%	58.7%	0.186	52.3%	55.4%	0.664
	NO	58.8%	44.2%	39.2%	41.3%		47.7%	44.6%	
would you like to see price details about a dental product in advertisement	YES	64.7%	76.9%	72.5%	80.4%	0.321	70.5%	75.9%	0.387
	NO	35.3%	23.1%	27.5%	19.6%		29.5%	24.1%	
Have you bought any dental products in the past, after watching an advertisement?	YES	45.1%	55.8%	54.9%	30.4%	0.045*	47.7%	46.4%	0.855
	NO	54.9%	44.2%	45.1%	69.6%		52.3%	53.6%	
If yes, how likely are you to recommend a dental product based on dental advertisement	HIGHLY LIKELY	11.8%	28.8%	23.5%	8.7%	0.016*	18.2%	18.8%	0.862
	MOSTLY LIKEY	27.5%	23.1%	19.6%	13%		21.6%	20.5%	
	MODERATELY LIKELY	29.4%	19.2%	23.5%	13%		21.6%	21.4%	
	NOT LIKELY	27.5%	26.9%	29.4%	54.3%		31.8%	35.7%	
	HIGHLY UNLIKELY	3.9%	1.9%	3.9%	10.9%		6.8%	3.6%	
would you prefer the product based on the external appeal of	YES	21.6%	38.5%	17.6%	13%	0.034*	21.6%	24.1%	0.608
	NO	78.4%	61.5%	82.4%	84.8%		78.4%	75%	

the product?									
would you prefer a product based on the price and discount?	YES	68.6%	63.5%	60.8%	56.5%	0.659	55.7%	67.9%	0.077
	NO	31.4%	36.6%	39.2%	43.5%		44.3%	32.1%	
what tempt you to buy dental products after watching an advertisement?	ATTRACTIVE ADVERTISEMENT	21.6%	13.5%	9.8%	6.5%	0.006*	11.4%	14.3%	0.099
	FAVOURITE MODELS	13.7%	5.8%	0%	4.3%		10.2%	2.7%	
	I LIKE TO TRYOUT A NEW PRODUCT	27.5%	51.9%	39.2%	32.6%		33%	42%	
	OTHER REASONS	37.3%	28.8%	51%	56.5%		45.5%	41.9%	
will the chance of buying a product increase if it is bundle with a freebie?	YES	51%	50%	43.1%	60.9%	0.380	45.5%	55.4%	0.164
	NO	49%	50%	56.9%	39.1%		54.5%	44.6%	
Have you ever received a free dental product as a part of advertisement?	Yes	27.5%	34.6%	29.4%	15.2%	0.177	18.2%	33.9%	0.013*
	No	72.5%	65.4%	70.6%	84.8%		81.8%	66.1%	

TABLE 3: COMPARISON OF EDUCATION WITH ATTITUDE OF ATTITUDE OF ADULTS TOWARDS DENTAL PRODUCTS.

		EDUCATION							P VALUE
		ILLITE RATE	PRIMAR Y SCHOOL CERTIFI CATE	MIDDLE SCHOOL CERTIFI CATE	HIGH SCHOOL CERTIFI CATE	DIPLOM A/ INTERME DIATE	GRAD UATE	PROFE SSION OR HONOU RS	
Which of the following modes have you watched a dented ad?	DIGITAL	17.6%	0%	0%	23.9%	21.4%	50%	0%	0.004*
	PROFESS IONAL MAGAZI NES	0%	0%	0%	2.2%	2.4%	3.1%	0%	
	NEWSPA PERS	5.9%	0%	0%	0%	7.1%	3.1%	0%	
	BANNER S	0%	0%	0%	0%	4.8%	0%	33.3%	
	TELEVISI ON	76.5%	100%	100%	73.9%	64.3%	43.8%	66.7%	
Befor e purch asing a dental	ALWAYS	17.6%	0%	25%	38%	50%	62.5%	66.7%	0.018*
	SOMETI MES	58.8%	0%	33.3%	23.9%	28.6%	28.1%	33.3%	
	NEVER	23.5%	100%	41.7%	38%	21.4%	9.4%	0%	

product do you look for ratings and reviews?											
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TABLE 4: OCCUPATION AND ATTITUDE OF ADULTS TOWARDS DENTAL PRODUCTS.

		OCCUPATION										P V A L U E
		UNEMPL OYED	ELE MEN TAR Y OCC UPA TION	PLA NT AND MAC HINE OPER ATORS AND ASS EMBL ERS	CR AF T AN D RE LA TE D TR AD E WO RK ERS	SKILL ED AGRI CULT URAL AND FISHE RY WOR KERS	SKI LL ED WO RK ERS AN D SH OP AN D MA RK ET SA LES WO RK ERS	CL ER KS	TECH NICIA NS AND ASSO CIATE PROF ESSIO NALS	PROF ESSIO NALS	LEGI SLAT ORS, SENI OR OFFI CIAL S AND MAN AGE RS	
What kind of adve	NEWS PAPER	5.5%	0%	0%	0%	0%	16.7%	0%	0%	4.2%	0%	0.0 33 *
	PROFE SSION AL	1.6%	0%	0%	0%	50%	0%	0%	0%	16.7%	0%	

Do you prefer?	MAGAZINES										
	TELEVISION	57%	100%	100%	100%	50%	56.7%	100%	55.6%	45.8%	0%
	DIGITAL ADVERTISEMENT	35.9%	0%	0%	0%	0%	26.7%	0%	44.4%	33.3%	100%

TABLE 5: MEDIUM OF PREFERENCE AND ATTITUDE OF ADULTS TOWARDS DENTAL PRODUCTS.

		WHAT KIND OF ADVERTISEMENT MEDIUM DO YOU PREFER				p VALUE
		NEWSPAPER	PROFESSIONAL MAGAZINES	TELEVISION	DIGITAL ADVERTISEMENT	
would you like to see price details about a dental product in advertisement	YES	64.3%	85.7%	75.9%	70.1%	0.602
	NO	35.7%	14.3%	24.1%	29.9%	
Have you bought any dental products in the past, after watching an advertisement?	YES	50%	28.6%	45.5%	50.7%	0.687
	NO	50%	71.4%	54.5%	49.3%	

If yes, how lightly are you to recommend a dental product based on dental advertisement	HIGHLY LIKELY	21.4%	15.2%	23.9%	18.5%	0.166
	MOSTLY LIKEY	28.6%	0%	17%	28.4%	
	MODERATELY LIKELY	21.4%	28.6%	21.4%	20.9%	
	NOT LIKELY	14.3%	42.9%	42%	23.9%	
	HIGHLY UNLIKELY	14.3%	14.3%	4.5%	3%	
what tempt you to buy dental products after watching an advertisement	ATTRACTIVE ADVERTISEMENT	14.3%	14.3%	8%	20.9%	0.011 *
	FAVOURITE MODELS	14.3%	28.6%	1.8%	9%	
	I LIKE TO TRYOUT A NEW PRODUCT	28.6%	14.3%	41.1%	37.3%	
	OTHER REASONS	42.9%	42.9%	49.1%	32.8%	

TABLE 6: MODES OF WATCHING DENTAL ADVERTISEMENT AND ATTITUDE OF ADULTS TOWARDS DENTAL PRODUCTS

		WHICH OF THE FOLLOWING MODES HAVE YOU WATCHED DENTAL AD					p VALUE
		DIGITAL	PROFESSIONAL MAGAZINES	NEWSPAPERS	BANNERS	TELEVISION	
would you like to see price details about a dental product in	YES	74%	75%	40%	100%	73.9%	0.408
	NO	26%	25%	60%	0%	26.1%	

advertise ment							
Have you bought any dental products in the past, after watching an advertise ment?	YES	48%	75%	20%	33.3%	47.1%	0.563
	NO	52%	25%	80%	66.7%	52.9%	
If yes, how lightly are you to recommen d a dental product based on dental advertise ment	HIGHLY LIKELY	26%	0%	0%	33.3%	16.7%	0.296
	MOSTLY LIKEY	26%	25%	0%	33.3%	19.6%	
	MODERATE LY LIKELY	26%	50%	40%	0%	18.8%	
	NOT LIKELY	22%	25%	40%	33.3%	38.4%	
	HIGHLY UNLIKELY	0%	0%	20%	0%	6.5%	
what tempt you to buy dental products after watching an advertise ment?	ATTRACTI VE ADVERTISE MENT	22%	25%	0%	33.3%	9.4%	0.042 *
	FAVOURIT E MODELS	12%	25%	20%	0%	2.9%	
	I LIKE TO TRYOUT A NEW PRODUCT	38%	25%	40%	0%	39.1%	
	OTHER REASONS	28%	25%	40%	66.7%	48.6%	

prefer to purchase dental product by word of mouth. 69.6% of population aged 60 and above doesn't buy any dental products after watching advertisement. 54.3% of the participants aged 60 and above are not likely to recommend dental products based on an advertisement; 84.8% doesn't buy dental products based on external appeal and 56.5% are tempted by other reasons to buy dental products other than attractive advertisement. About 81.8% of male population have not received any dental products as a part of advertisement and it is a significant result.

While comparing education and the attitude of adults towards dental product advertisement. 100% population possessing primary school certificate and middle school certificate watched the dental product advertisement in television and 100% of population with primary school certificate never purchased a dental product after looking ratings and reviews which is a significant result (table 3).

Table 4 reflects the attitude of adults towards dental products based on their occupation. 100% of respondents with elementary occupation, plant and machine operators and assemblers, craft and related trade workers, clerks prefer television as medium to watch dental product advertisement and 100% of population those who are legislators, senior officials and managers prefer digital advertisement to watch dental product advertisements which is a significant result.

Table 5 shows relation between preference of advertisement medium and attitude of adults towards dental products. 49.1% of population are tempted by other reasons to buy dental products other than attractive advertisement, favorite models and trying out new products on preferring television as advertisement medium, which is a significant result.

Table 6 describes the relation between Mode of watched dental advertisement and attitude of adults towards dental products. 66.7% of population those who watched dental advertisements in banners are tempted by other reasons to buy dental products other than attractive advertisement, favorite models and trying out new products which is a significant result.

DISCUSSION

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From the analysis of the results yielded from our study, we deciphered the following facts and information;

About 89.1% of participants of the age 60 and above, watched dental advertisements via television as they have more leisure time, 73.9% of them prefers television to magazines and digital as most of them are not accustomed to the latter as stated in the study by HP Chanchala et al [14], 73.9% prefers word of mouth over advertisement as they are more socially isolated and they believe suggestions from friends and family more.

About 55.8% of participants of the age 26-44 years have bought dental products after watching an advertisement as they always follow the latest trends and copy their celebrities while 69.6% of participants of the age 60 and above have not purchased any due to their propensity to remain attached to the same product as stated in the study by Pandraud et al and Laurent et al [15] and in the study by Sivadasan et al [7] and 54.3% of them are highly unlikely to recommend dental products.

About 84.8% of the participants of age 60 and above does not prefer a product based on the external appeal as most of them are under the opinion that looks can be deceptive as stated in the study by Opeodu et al [9] and 56.5% buy dental products for other reasons like taste of the product, cost as stated by Umanah et al and Braimoh et al in their study [16] while 51.9% of the participants of age 26-44 have bought dental products to try them out.

About 81.8% of the male participants have not received a free dental product as a part of advertisement as they are less interested towards such programs and females have been reported to exhibit better knowledge, positive attitude and behavior towards oral health as stated in the study conducted by Bashiru et al and Omotola et al [16].

About 100% of the participants with primary and middle school certificate have watched a dental ad through television and 100% of the participants with primary school certificates never look for ratings and reviews before purchasing a dental product as most of them prefer traditional shopping. About 100% of the participants with elementary occupation; plant and machinery operators and assemblers; craft and related

trade workers, clerks prefer television while legislators, senior officials and managers prefer digital advertisement as the advertisement medium.

About 49.1% of the participants who prefer television as the advertisement medium are tempted by other reasons than attractive advertisement, favorite models or trying out new products and 66.7% of the participants who have watched the dental ad through banners buy the products for other reasons such as cost, taste, content as stated in the study by IC Adegbulugbe et al[17].

CONCLUSION

The world health organization has recognized oral health as an integral element of general health. With the progress in technology and advancement of knowledge, we have achieved a forward leap in the arena of oral health care. However this triumph is afflicted by the fact that only a small percentage of the population are aware of this advancement. This is where the importance of advertisement is highlighted. Advertising is a powerful tool that helps to inform customers about the product, attract them and built their trust. In today's world, the mass media plays an important role, and it can provide a unified platform for all public health communication, comprehensive health care education and guidelines. Advertising can enable equal access to health care and learning of correct health information and knowledge, the transformation of health attitudes and values, and the adoption of new health behaviors.

In case of online shopping, consumers depend on ratings and reviews while in traditional shopping they depend on advertisement, word of mouth, external appeals. But some are under the prejudice that advertisements can be deceptive and often mistakes good products as disagreeable. To conclude, people are increasingly turning to the media for information on health care products.

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