



Original Research- Survey
**KNOWLEDGE AND AWARENESS ON PRESCRIPTION DRUG
ADVERTISEMENT AMONG DENTAL STUDENTS IN CHENNAI**

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Abstract

Aim and objectives: The aim of this research is to find out current knowledge and awareness on prescription drug advertisement among dental students especially in Chennai, Tamil Nadu. This helps in gaining knowledge on dental students' awareness in drug advertising based on their previous and current knowledge in medical field.

Materials and Methods: Questionnaire consisting of 15 questions are given through online communication system (Whatsapp Apps) with attached link to the online questionnaire that had been prepared earlier (<http://app.surveypplanet.com>). 120 students from 4 dental institutions in Chennai took part in this survey.

Results: Awareness of dental students in Chennai is calculated based on their best answer response toward the prescription drug advertising based on their current knowledge. Collecting all responses, most of them heard or have seen prescription drug advertisement from television (31.67%) and internet (29.17%). Other students have heard about it on television or seen it through newspaper (16.67%), magazines (29.17%), and 10.00% students have not heard or seen any advertisement about it. Majority of students (58.33%) do not know what content are not required to be advertised, and 41.67% knew about it. Most of the respondents (35.00%) are not sure about the drug advertising regulations in their country, 34.17% are not aware and only 30.83% claimed that they are aware about the regulations. All of the respondents (100%) recommend the patients for specialist consultation before taking any drugs.

Conclusion: The prescription drug advertisement is very important in dental health care because it will determine the success of any treatment done. The misuse of prescription drugs may lead to negative consequences that may affect the treatment. The higher percentage of awareness might be due to the knowledge the students acquire of dental syllabus before entering the clinical years.

Key words: Prescription drug; Drug advertisement; Students' awareness; Chennai, India

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INTRODUCTION

Advertisement of the prescription drugs through various media have become a trend in pharmaceutical industries. The most popular advertising method is Direct-to-Consumer (DTC) which enables the prescription drugs manufacturer to promote their drugs direct to the patients^[1, 2]

There are various medium for advertising prescription drugs such as television, internet, magazines, journal, etc^[3, 4] However, there should be an organization that must look after the regulations and law of the criteria in the advertisement^[5] Therefore, Food and Drugs Administration (FDA) have vested in them an authority to determine whether the ads used on the prescription drugs are suitable or may be rejected for advertising.[2]

This study aims to determine the current awareness percentage on prescription drug advertisement among dental students especially in Chennai, Tamil Nadu. This help in gaining knowledge on dental students in drug advertising awareness based on their previous and current knowledge in medical field.

Materials and Method

Questionnaire consisting of 15 questions are given through online communication system (Whatsapp Apps) with attached link to the online questionnaire that had been prepared earlier (<http://app.surveypplanet.com>). 120 students from 4 dental institutions in Chennai took part in this survey. Dental students from Saveetha Dental College, Meenakshi Ammal Dental College, Sri Ramachandra Dental College and Ragas Dental College.

Observation and Results

A questionnaire consisting of 15 questions was sent to various years of study of dental students from 4 dental institutions in Chennai, out of which 120 questionnaires were filled.

Out of the 120 students who responded to the questionnaire, 39.29% were second year BDS, 31.43% were third year BDS, 19.29% were first year BDS, final year students and Intern both 7.00% respectively.

The survey results are as follows:

1.From all respondents, most of them have heard or seen prescription drug advertisement from television (31.67%) and internet (29.17%). Other students have heard or seen it through newspaper (16.67%), magazines (29.17%), and 10.00% students have not heard or seen any advertisement about it.

2.Majority of students (58.33%) do not know what content ads are not required to be included in the advertisement, and 41.67% tell that they know about it.

3.Huge percentage of students (84.17%) do not know how "brief summary," "prescribing information," "major statement," and "adequate provision" differ, and only 15.83% students claim that they know about it.

4.56.67% of students do not know about laws governing design of ads for prescription drugs, meanwhile others (43.33%) claim that they know about the law.

5.47.50% dental students claimed that they know the composition of drugs that they prescribed to patients, 35.83% were not aware of the composition and the rest (16.67%) opined that knowing the drugs' composition is not relevant to their job.

6. Majority of respondents (84.17%) think that they need to know the side effects of drugs that they might most probably give to their patients now/ later. Meanwhile 7.50% think that they do not need to know about it and another 8.33% were ambiguous in their reply.

7. Only 25 % of students think the advertised drugs in media are more expensive compared to non-advertised drugs, 19.17% think that it is not a correct statement and the majority (55.83%) were not sure about that.

8. Most of respondents (35.00%) are not sure about the drug advertising regulations in their country, 34.17% are not aware and only 30.83% claimed that they are aware about the regulations.

9. Majority of respondents (60.83%) will /usually read the information on safety and side effects and reaction on the drug label from different manufacturers before prescribing it to patients, 32.50% only read it sometime, and 6.67% will not read them at all.

10. 67.50% of students claimed that they do not believe on drug advertisement in social medias in comparison to practitioners' prescription, 25% claimed that they sometime believe it and only 7.50% actually give credence to drug advertisements.

11. 43.33% students think that drug abuse is related to the advertisement of prescribed drug, 41.67% are not sure about that and the minority of 15.00% do not think so.

12. Most of the students (60.83%) think that drug advertisement is a bad idea and the rest 39.17% opined vice versa.

13. All of the respondents (100%) recommend the patients to consult specialists before taking any drugs.

14. 52.50% students think that campaigning towards awareness is the best platform as a dentist to give patients an awareness toward the prescription drugs and 39.17% on the other hand think that informing the patients after every treatment is the best platform.

Discussion

In this study, 120 students from 4 dental institutions in Chennai took part in this survey. Dental students from Saveetha Dental College, Meenakshi Ammal Dental College, Sri Ramachandra Dental College and Ragas Dental College are the 4 dental institutions that took part in this study. The questionnaire contained questions on various aspects in order to find out their awareness level based on their current knowledge in the Prescription drug Advertising.

There are various elements taken into consideration in this study in order to calculate the level of awareness of dental students such as: Advertising medium of prescription drugs; Ads- law and regulations; term involving prescription drugs; moral of dentist toward prescription drug advertising; prescription drug abuse; and, responsibility and the role of dentist in creating awareness.

In the current study by author, 4 questions were asked on the advertising medium of prescription drugs. Dental students are aware about the medium of advertising which is using popular media such as television, magazines and social media^[2]

In current study, most dental students were aware on the drug advertisement in the television and internet.

Direct-to-consumer Pharmaceutical Advertising (DTCPA) is a most preferable type of health communication by the society currently and it has developed since the past several years ago.^[6] DTCPA is one of the methods of advertising the pharmaceutical drugs by using popular medium of communication such

as social network.^[7] It is powered by drug companies in order to promote their prescription products directly to the community, specifically to the patients. Most of the countries do not allow DTCPA, except for United States and New Zealand which allow DTCPA that include with products claim in future.^[8, 9]

In DTCPA, there are three types of advertisement, which are “help-seeking ad”, “reminder ad” and “product claim ad”.^[9] In “help-seeking ad”, the advertisement only provides medical condition information and patients are asked to contact medical specialist for further description about the drug and information about the product is not displayed.^[10]

In “reminder ad”, the drugs with the product name, drug strength, dosage form and prices are included. However it will not mention any indication or make any claim on drugs.^[7]

For “product claim ad”, the drugs are included with the indications and efficacy or safety claims. However for the specific type of advertisement, they have different FDA regulatory restriction.^[9]

Based on the current study by author, respondents’ awareness on prescription drug ads, its regulations and governing laws was low. Dental students still do not know what is the ad regulation and what should be displayed during the advertisement of prescription drugs.

The drug federal regulations started when there were only a few drugs that were effective available in the market and patients can choose the medication by themselves. In early twenties, patients could obtain drugs by asking for prescription from the medical doctor and bought them in pharmacy. Most of the prescription drugs can be obtained without prescription as prescription was not required. Prescriptions is “a convenience to be used or not as the situation indicated” (Temin 1980).^[3, 11]

Medical specialists should supervise prescription drugs use because patients are not able to use them on their own within the constraints of safety. Therefore, congress had decided different regulations and law on prescription drug advertising. Regulation by congress can be divided into: Product claim advertisements, reminder advertisement, and help-seeking advertisement.^[12]

In product claim advertisements, it is the only type of ad that include the name of drug and discuss about its benefits. The product claim ad must follow all of these regulations: the drug name which include brand name and generic name, have FDA approval for at least one drug use, and the most common risk of drugs.^[12] Other than that, print label of product claim ad must contain “brief summary” on the drugs and risks should be listed in its prescribing information approval. In broadcast such as television, radio or telephone it must include “major statement” and suggested to provide the information such as a local healthcare provider, a toll-free number, a magazine that contain the current printed ad and a website address online.^[11]

In reminder advertisements, the manufacturer only gives the drug name without explaining about the uses of drugs. This type of ad does not need to include risk information. It also cannot suggest the benefits and the risks of the drugs.^[12] Prescription drugs with serious risks are not allowed to use reminder ads due to the seriousness of the drugs.^[13]

For help-seeking advertisement, it describes the disease condition but never suggest any drug treatment. Allergies, asthma and osteoporosis are some examples of condition of diseases that always use help-seeking ad. These ads will encourage patients to meet medical specialists and ask for help. It is technically not a drugs ads, but consider as health provider ads by FDA.^[14]

In this study, there is one question which was asked on the term of prescription drugs. There are several terms that are very important in the prescription drugs advertisement, such as: adequate provisional, brief summary, prescribing information, major statement, claim, and substantial evidence.

Adequate provision is an alternative method in providing risk information by manufacturer companies on drugs during the advertisement in various medium of broadcasting. It is usually called as brief summary in the printed version of ads; however, it is quite difficult to read in the broadcast methods.

Brief summary is a detailed information that should include in the advertisement of printed prescription drugs. The law state that brief summary should be included in the products claim ads. The risk of the drugs should be appeared in the “prescribing information”.^[10, 15]

Prescribing information is all of these: product information, label of products, and the package insert (PI). It should be drafted by the drug companies and get the approval from FDA. It should contain directions and details of healthcare providers that properly labelled. PI must include the following: chemical description, condition of disease it treated, interaction of drugs with others, etc.^[2, 16]

Major statement is a prescription drugs’ important risk that is compulsory in the broadcasting advertisement. The presentation should be spoken clearly. The major statement for every drug may vary according to their type.

Claim in the prescription drugs advertising is related to the benefits. It says mostly about the uses of drugs and what it can do. It also can be made in the graphical presentation. The law states that claim ads must be consistent with the prescribing information and supported by substantial evidence.^[15]

Substantial evidence is a scientific study of the drugs on their benefits and it is needed to get approval for claim from FDA. At least two studies are needed for approval, in order to support companies or manufacture claims.

Based on the current study by author, majority of dental students are aware of relationship between prescription drugs advertisement and its abuse. Prescription drug abuse kills more persons than vehicle accidents for every year. It is classified as an epidemic by Centers for Disease Control and Prevention (CDC) and it is said to be a threat to the modern medicine achievement by World Health Organization (WHO).^[17-19]

Drug abuse mostly occurs due to the vigorous advertisement of prescription drugs by the manufacturer straight to the person. Opioids, antidepressant and antibiotics are the most prescription drugs that had been abused across the world. The misconception about the prescription drugs is also one of the factors that may lead to the drugs abuse.^[3, 20]

The prescription drug abuse can be avoided if there is clear awareness on the dangers of misuse of drugs among the society. Elderly showing the higher rate of prescription drugs, and the amount are expecting to increase in future.^[3, 11]

Moral of dentist toward prescription drug advertising and Platform of dentist to create awareness.

In current study, 4 questions were asked on the moral of dentist and dentist platform in creating the awareness in society. Direct-to-Consumer (DTC) is believed to be an important method in the prescription drugs advertising.^[21, 22] It is a helpful way in order to give information about the drugs to any person based on their diseases. However, the dentist moral toward the DTC should be taken into the account.

Dentist should know the drugs’ composition, their side effects and any risks that might happen to the patients before prescribing them. The proper study on the drugs by dentists should be most important criteria in prescribing the prescription drugs in treatment of diseases. Therefore, in medical schools and dental schools, the study of pharmacology is compulsory before they enter the clinical years.

The health practitioners including pharmacist should read the drugs instruction, make sure that the original prescribing documents is issued by the qualified doctors and they know what recommendation that most suitable to the patients.

Awareness on prescription drugs advertisement need to be a mandate among dental practitioners, health practitioners and societies. Dentists can give brief explanation on the drugs advertisements after each treatment to every patient. Dentists also can contribute their knowledge by conducting awareness campaigns or health camps on prescription drugs advertisement.

Conclusion

The prescription drugs advertisement is very important in dental health care because it will determine the success of any treatment done. The misuse of prescription drugs may lead to any negative consequences that may affect the treatment. The misuse of prescription drugs are mostly due to the misunderstanding of advertisement by manufacturers. The knowledge on the regulations and law of advertisement of prescription drugs is important to avoid all these consequences. The knowledge on dental students' awareness in drug advertising based on their previous and current knowledge in medical field is assessed to find clarity for their misunderstanding.

The higher percentage of awareness among the dental students might be due to the knowledge the students acquire in the dental syllabus before entering the clinical years. A platform wherein Dentists can provide awareness on prescription drug advertisement would be a welcome move.

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Nil

Conflicts of interest

There are no conflicts of interest

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Table 1: Questionnaire on Awareness of Prescription drug advertising among dental students in Chennai

1. Which year of BDS are you studying currently? (Not counted in calculation of Awareness Percentage)

- a) 1st year
- b) 2nd year
- c) 3rd year
- d) Final year
- e) Intern

2. Where have you heard or seen prescription drug advertisements?

- a) Television
- b) Magazines
- c) Internet
- d) Newspaper
- e) Have not heard or seen prescription drug
- f) Other

3. Do you know what ads are not required to tell you?

- a) Yes
- b) No

4. Do you know how the "brief summary," "prescribing information," "major statement," and "adequate provision" differ?

- a) Yes
- b) No

5. Do you think there are laws governing the design of ads for prescription drugs?

- a) Yes
- b) No

6. Do you know the drug composition before prescribing them to patients?

- a) Yes
- b) No

c) Not related

7. Do you know think that you need to know every side effect of drug that you might give to your patients now/later?

a) Yes

b) No

c) Not sure

8. Are the advertised drugs in media more expensive compared to non-advertised drugs?

a) Yes

b) No

c) Not sure

9. Are you aware of the drug advertising regulations in your country?

a) Yes

b) No

c) Not sure

10. Will you usually read safety and side effect information and reaction on the drugs label from different manufacturer before prescribing it to patients?

a) Yes

b) Sometime

c) No

11. Do you believe on drug advertisements in social media when compared to practitioners' prescription?

a) Yes

b) No

c) Sometime

12. Do you think drug abuse is related to the advertisement of prescribed drug?

a) Yes

b) No

c) Not sure

13. Do you think drug advertisement is a good or bad idea?

a) Good

b) Bad

14.As a dentist, what do you recommend to the patients?

- a) Believe in drug advertisement
- b) Ask specialist before taking any drugs
- c) Read from the internet about the drug before consuming

15.What is the best platform as a dentist to give patients an awareness toward the prescription drugs?

- a) More campaign toward awareness
- b) Inform the patients after every treatment
- c) Do nothing
- d) Not sure

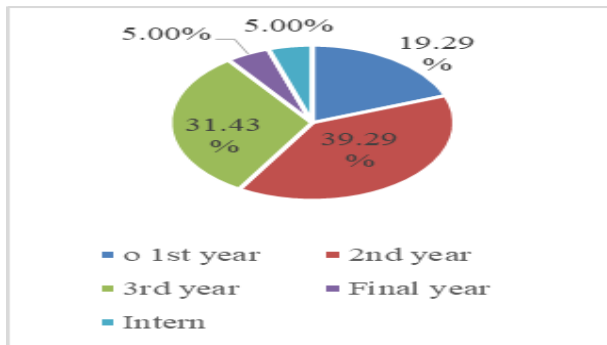


Figure 1: Year of BDS students who are participated in this study.

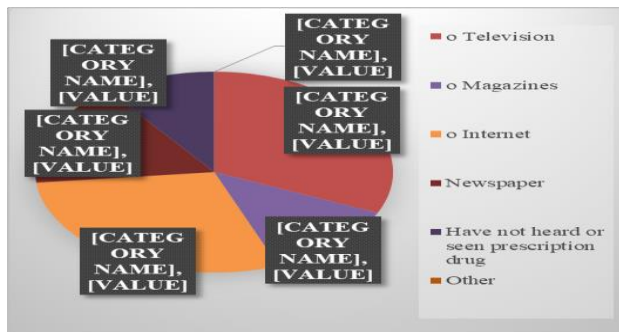


Figure 2: Medium which they heard or seen prescription drug advertisements.

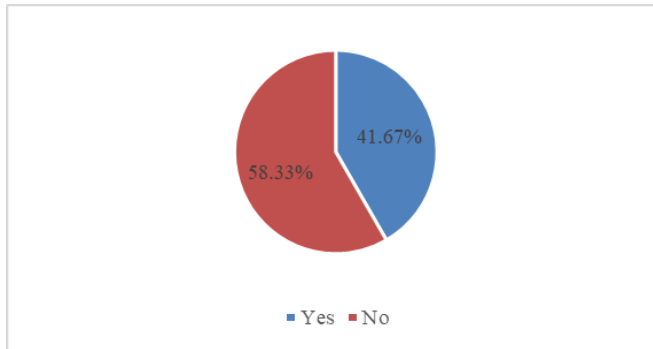


Figure 3: Knowledge of ads not required to include in label.

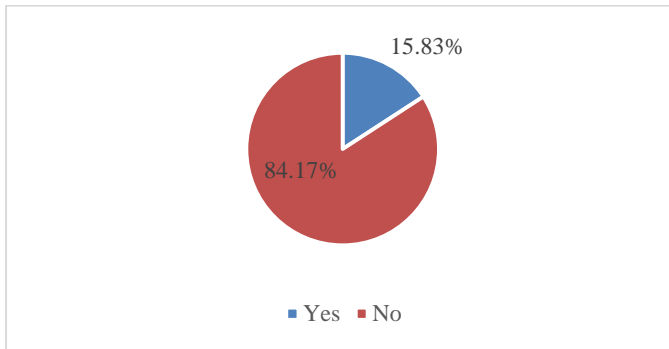


Figure 4: Knowledge of what the "brief summary," "prescribing information," "major statement," and "adequate provision" differ.

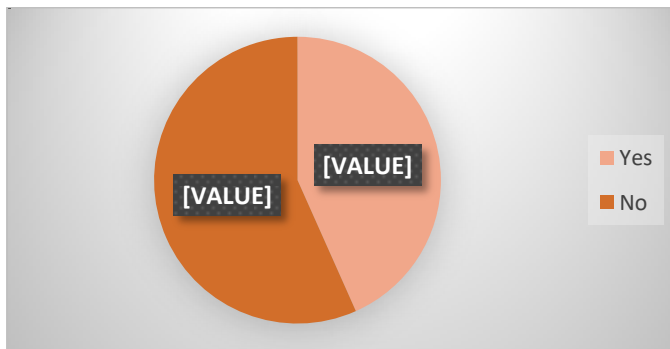


Figure 5: Awareness on the law about the design of ads for prescription drugs.

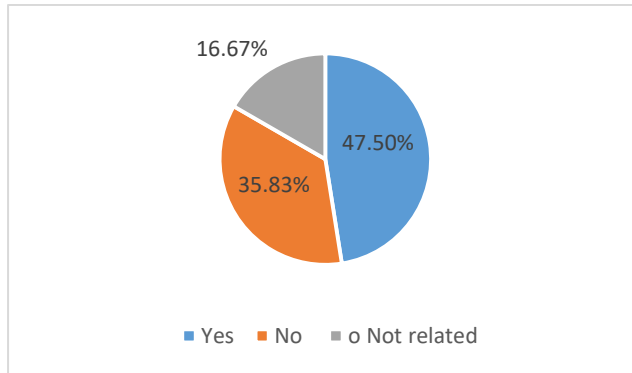


Figure 6: Awareness of drugs composition when prescribed them to patients.

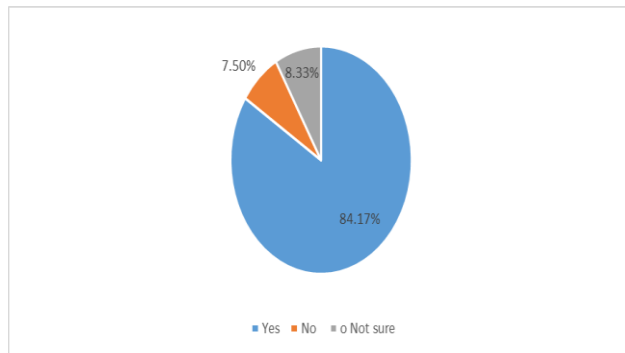


Figure 7: Need to know every side effect of drugs that most probably they might give to their patients now/later.

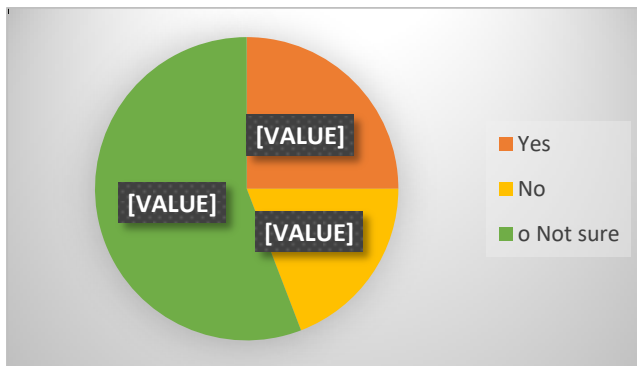


Figure 8: Advertised drugs in media more expensive compared to non-advertised drugs.

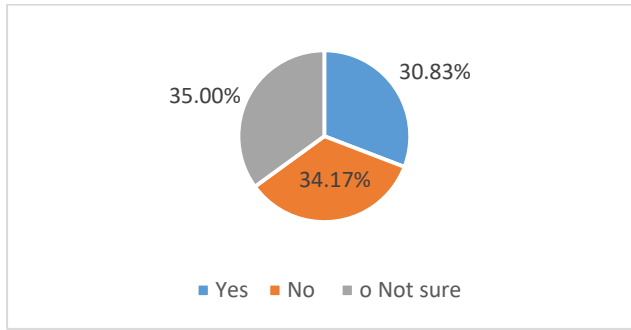


Figure 9: Awareness of the drug advertising regulations in country.

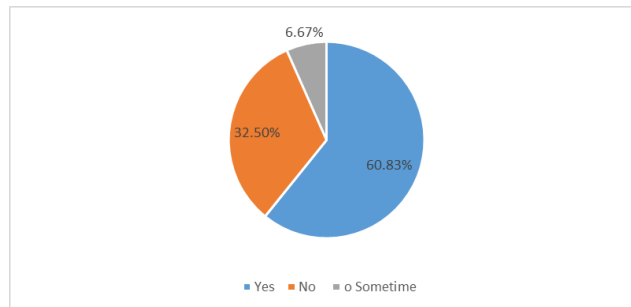


Figure 10: Awareness to read safety and side effect information and reaction on the drugs label from different manufacturer before prescribe it to patients

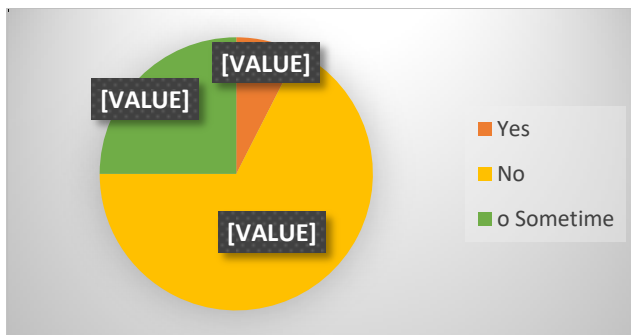


Figure 11: Believe on drugs advertisement in social media more compared to practitioners' prescription

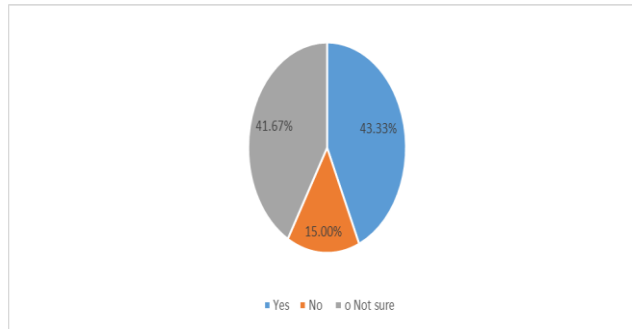


Figure 12: Opinion on drugs abuse whether it related to the advertisement of prescribed drug.

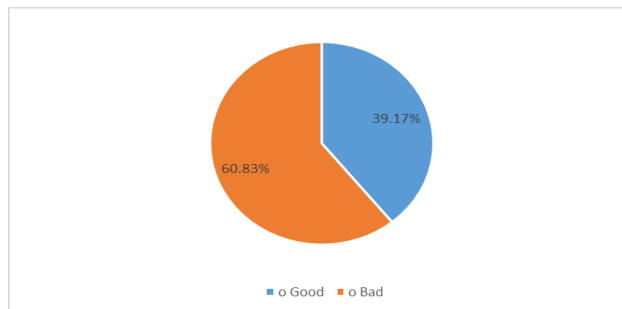


Figure 13: Drug advertisement is a good or bad ideas.

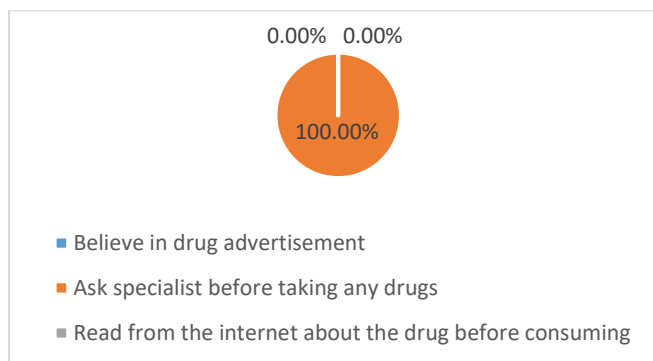


Figure 14: Recommendation as a dentist to the patients.

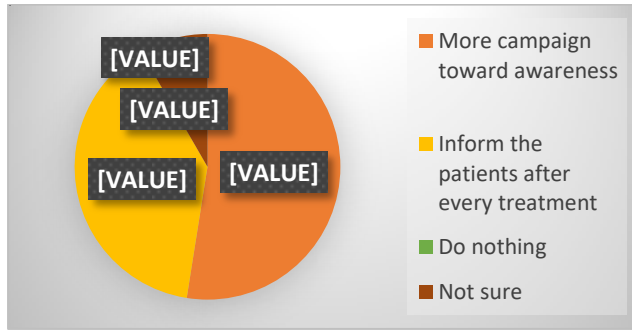


Figure 15: The best platform as a dentist to give patients an awareness toward the prescription drugs?



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