

# Measuring the level of awareness of youth using cosmetic nutritional supplements in Saudi Arabia

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## Abstract

This study was conducted to measure the community's awareness in terms of the good use of cosmetic nutritional supplements. The most interactive response questionnaire was conducted and it was found that a large percentage of the community, equal to 83%, uses cosmetic supplements, especially the middle age group (bachelor's degree). The common reason for their use was lack of nutrients but there is a category of 36% that consumed them for cosmetic reasons (beauty of hair, nails, skin etc.). Most supplements consume iron, and it is often taken for the cause of hair and skin loss. A rate of 73%, used the supplement after conducting laboratory analyzes, and this indicates that there is progress in awareness of the use of supplements, but based on these results, awareness programs must be conducted about the pattern and how to consume cosmetic nutritional supplements in a good way, in which sufficient use is made among individuals. 58% of people used the supplement based on a medical prescription, and this is considered an indicator of a rise in community awareness at the present time. As nutritionists, our role is to raise community awareness and disseminate correct information that guides them to the right path.

**Keywords:** Nutrition; Measuring; cosmetic; supplements.

**Full length article** \*Corresponding Author, e-mail: [chem\\_islam82@yahoo.com](mailto:chem_islam82@yahoo.com), [is.mohamed@qu.edu.sa](mailto:is.mohamed@qu.edu.sa) Doi # <https://doi.org/10.62877/3-IJCBS-24-25-19-3>

## 1. Introduction

Supplements are substances you might use to add nutrients to your diet or lower your risk of health problems. As a result of that, supplements are important and necessary for some groups of people, and are also highly recommended for the elderly. The question is, do we really need them? [1]. Cosmetic supplements which included Vitamins are frequent ingredients, such as vitamins A, C and multiple B vitamins, as well as minerals such as zinc, iron and selenium are witnessing interest, but it is not known whether this interest exists with or without scientific evidence [2-4]. There are some who consume supplements without awareness of their benefits or harm [3, 5]. The use of nutritional supplements is also spreading across countries [6]. Therefore, the US Food and Drug Administration (FDA) committee issued warnings regarding products that were found to be unsafe, and took the necessary measures to ensure compliance with them [7]. Supplements have health benefits when used in appropriate circumstances, as a need to counteract deficiency or to Ragab et al., 2024

prevent certain diseases [8]. Most of the time, the use of supplements is based on the advice of health care providers [9]. Despite this, there are some Saudi Arabians have a deficiency of vitamin D as a result of lack of awareness, which requires intervention from health care practitioners to educate patients [10]. As a result of the increasing prevalence of the use of cosmetic supplements without medical advice and the dependence of some on commercial advertisements promoting them, our study aimed to increase awareness of the way to use cosmetic supplements, including making the necessary analyzes and consulting a doctor.

## 2. Experimental

This questionnaire was conducted in Saudi Arabia. The questionnaire was published from 2-5-2023 to 5-5-2023. 150 Saudi Arabians aged from 15 to over 30 years voluntarily participated in the survey conducted.

The study was conducted in accordance with the principles of medical research, The research protocol was

previously approved by the Bioethics Committee of Qassim university (23-32-03). The questionnaire was distributed in Arabic language via the WhatsApp messaging app using Google forms technique. The questionnaire was validated in a pilot study. The questionnaire was translated into English. Data analyzed using Google Forms. The questionnaire was divided into two sections:

- Personal Information was collected, including age, Gender, Income, Level of education, Physical measurements (Height, Weight and Body Mass), Health Condition.
- Questions toward and patterns of dietary supplement use which included: Have you ever taken a supplement?, Have you conducted a laboratory test that tells you are suffering from a deficiency?, Did you listen to a doctor's consultation before using the supplement?, What is the supplement used?, Why use the supplement?, Have you taken this supplement on a recommendation?, Were you taking medications while taking the supplement?, The negative affects you encountered while taking the supplement with the medication?, Duration of using the supplement?, Have you noticed a positive effect during the period of use with?, Have you noticed side effects during use? and Have you conducted a laboratory test after using the supplement and noticed an increase in the percentage of some nutrients (vitamins and minerals)?.

### 3. Results

Personal information of 150 people in Figure 1 showed that (A) the age group 21-25 age in its ratio 33% more used for supplements in. (B) The vast proportion of female and male responses are very small. (C) The level of education in bachelor's degree is often the most widely used and attracted category of supplements Cosmetic Supplements Topics Via wishes to hear and take. (D) The income as the age group most responsive students, it is an average of 1000-3000. (E) Health condition is predominantly healthy. Body mass rates were calculated out of 150 people, and these ratios were (BMI) 3.3% underweight, 38.6% Healthy weight, 27.3% over weight, 30% obese range. Questions in Figure 2 were asked about:

1. What supplements were used. The highest proportion of iron by (35.3%) and iron was always taken as a supplement to hair loss and intensity.
2. What is the common reason for the use of the supplement? and the larger proportion tends to be due to a lack of some vitamins by (34.7%). and their liver is mostly taken due to a lack of vitamins and to interest in beauty (nails and hair).
3. Whether there is awareness in the use of the supplement and caution when taking it. The results indicate that there is awareness at the present time shows that the proportion of people who listened to the doctor's recommendation before use 58% and with the prevalence of awareness less use and take it only by hearing about it.
4. It is clear from the figure that a large segment of the society encountered negative effects from taking the supplement 13% did not benefit from the supplement.

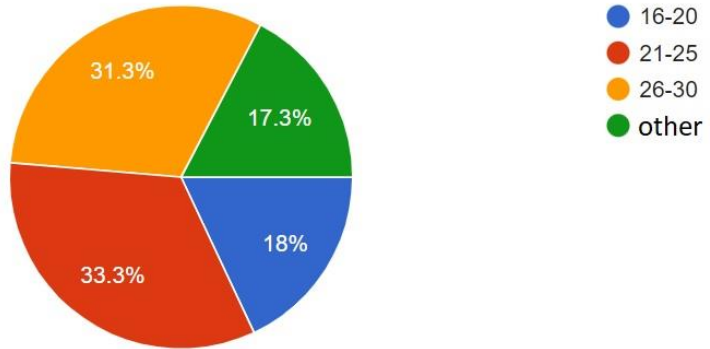
5. How long to use and take the optimal supplement It's predominantly the best of two to 6 months and it shows us here that consciousness is widespread and praiseworthy in society. On the part of adhering to the necessary duration of the results.
6. It shows us are their side effects during use at a high rate of 49%. It showed us there were no traces. But there's a ratio that shows us that supplements have side effects like 20% constipation and 14% nausea like vitamin causes nausea and iron supplement causes constipation.
7. The figure 2 (7) shows that the proportion of society is large (78%) do not take the supplement with the drug and this is a good indicator.
8. The figure 2 (8) shows that the dietary supplement taken has been utilized and the proportion that did not benefit from it is possible that they did not Listen to a doctor's advice and take it for the best time and use it in a good way. It shows that is there a follow-up after taking supplements It shows us that the highest percentage of them has not been tested and confirmed Whether the body benefited from the supplement or not.
9. It shows that a large proportion of people have taken 83.3% supplements. This indicates that cosmetic supplements at this time are common especially for the average age group.
10. It shows us that consciousness is widespread and that a large segment of society 73% of supplements were taken after analysis and good consultation, but there is a significant 41% segment that takes the supplement without analysis and consultation.
11. Figure 2 (11) shows that is there a follow-up after taking supplements. It shows us that the highest percentage of them (67.3%) has not been tested and confirmed Whether the body benefited from the supplement or not.

### 4. Discussion

This study aimed to Spread awareness in our community to not consume any supplements without asking their doctors and to Educate of people on the importance of doing their research before taking multiple supplements and doing blood tests to determine whether they need them or not use in Saudi Arabia in (2023). In Our study women are the most used for supplements in the age group 21-25 age with good health and level of education in bachelor's degree. that the common reason for taking these supplements at a rate of 36% is due to beauty (hair, nails, skin etc.). Most supplements consume iron, and it is often taken for the cause of hair and skin loss. But if the level of iron is normal, there is no benefit from them. Therefore, it is necessary to do laboratory analyzes because the excessive iron intake may cause toxicity and intestinal symptoms [11]. 73% used the supplement after conducting laboratory tests, to see if there was a deficiency in it, but unfortunately there was no follow-up to see if the deficiency was treated or not. 41% had taken the supplement without analysis and consultation. It was found that 58% of people used the supplement based on a medical, and this is considered an indicator of a rise in community awareness at the present time prescription.

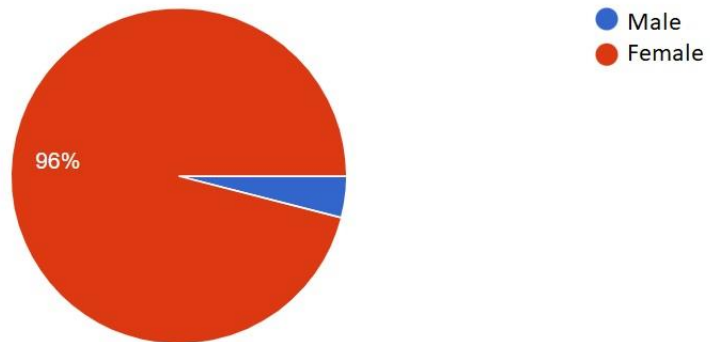
**A**

- Age  
150 Votes



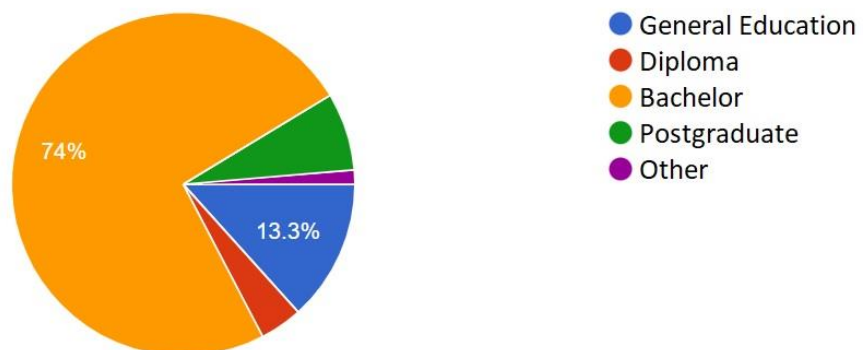
**B**

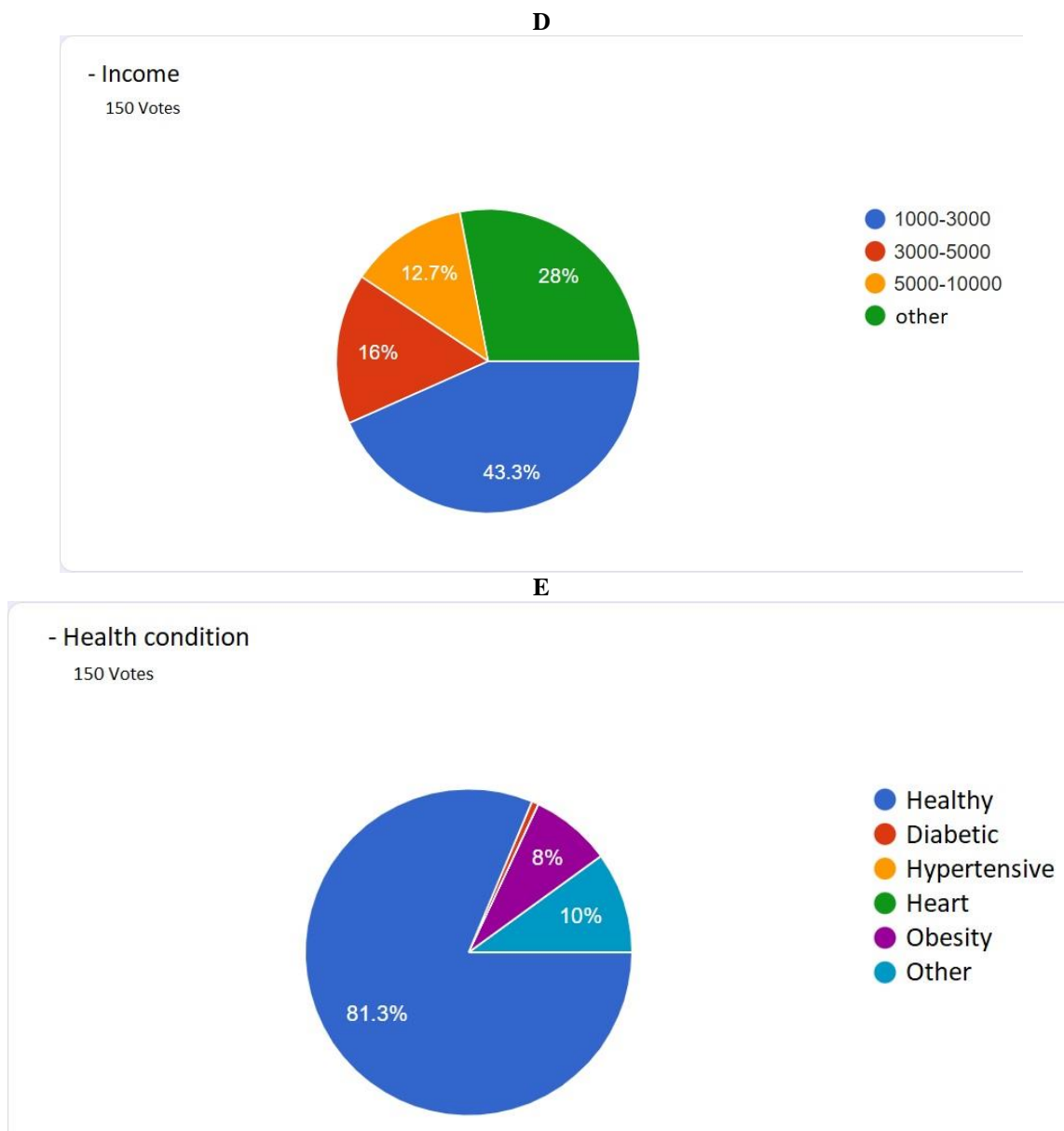
- Gender  
150 Votes



**C**

- The Level of Education  
150 Votes





**Figure 1:** Results of Personal Information (A- age, B- gender, C- the level of education, D- income and E- health condition).

**i**

- What supplements were used?

150 Votes



**ii**

- Reason for the use of the supplement.

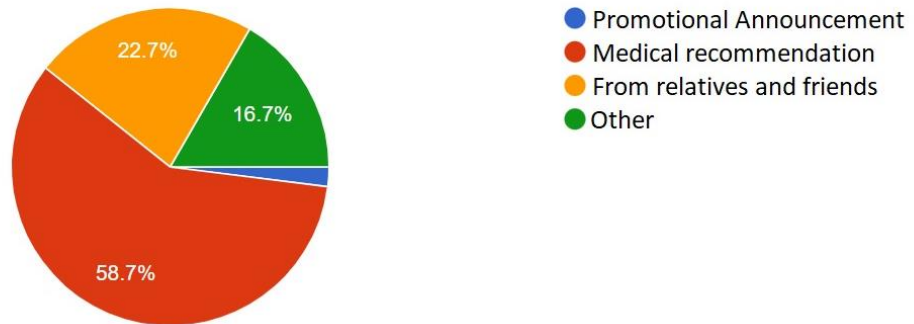
150 Votes



**iii**

- Have you taken this supplement on recommendation?

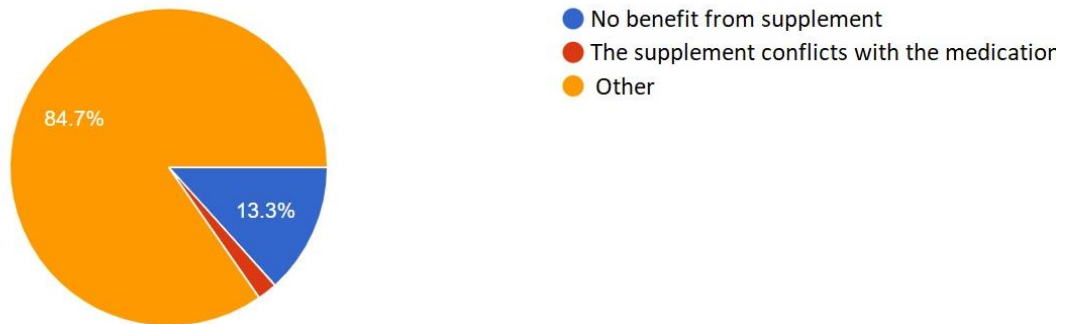
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iv

- Negative effects encountered while taking the supplement with the medication.

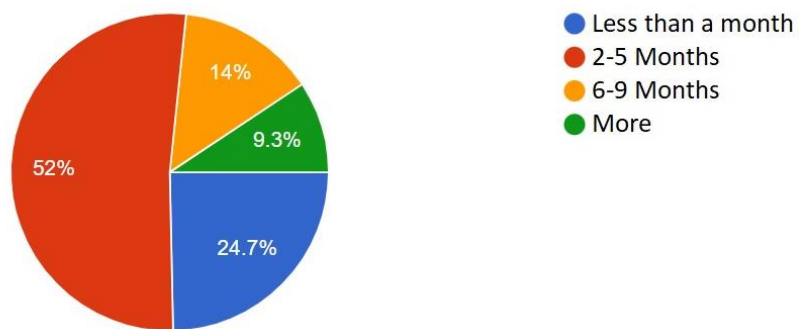
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v

Duration of use of supplement.

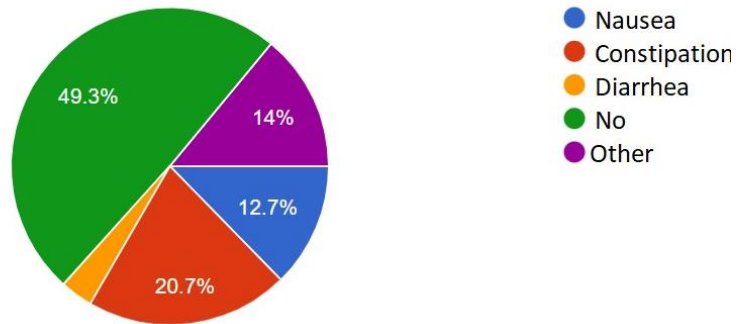
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vi

- Have you noticed side effects during use?

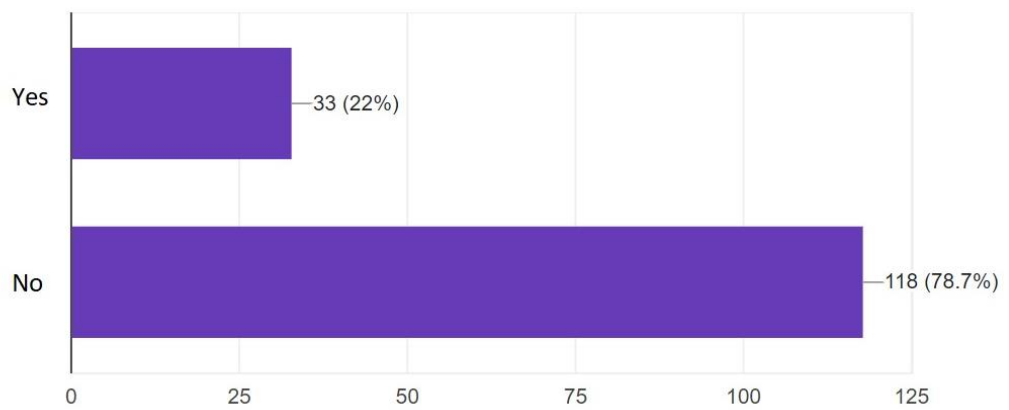
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vii

- Were you taking medications during the supplement?

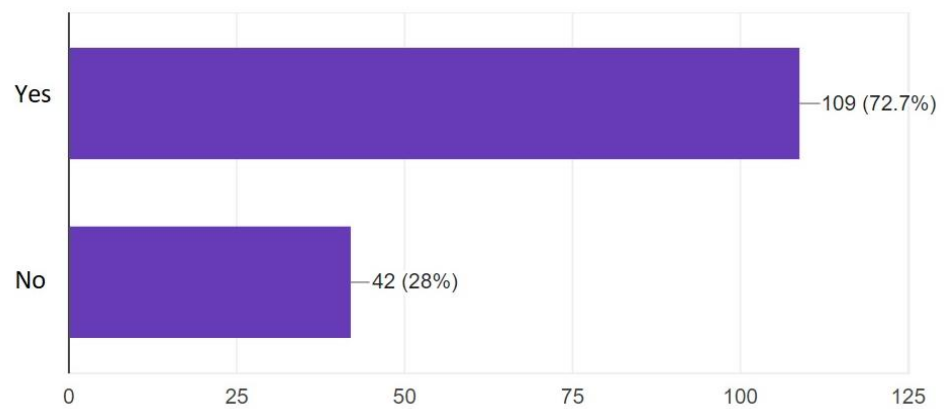
150 Votes



viii

- Have you noticed a positive effect during the use period?

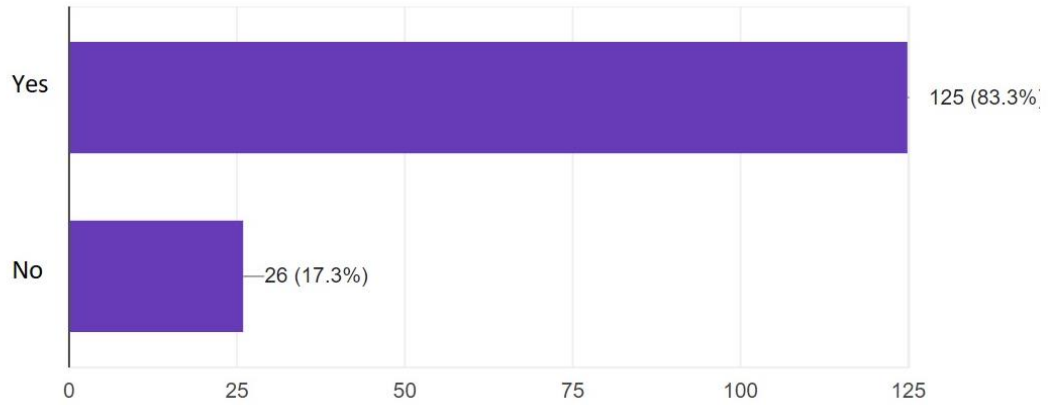
150 Votes



**ix**

- Have you ever taken a supplement?

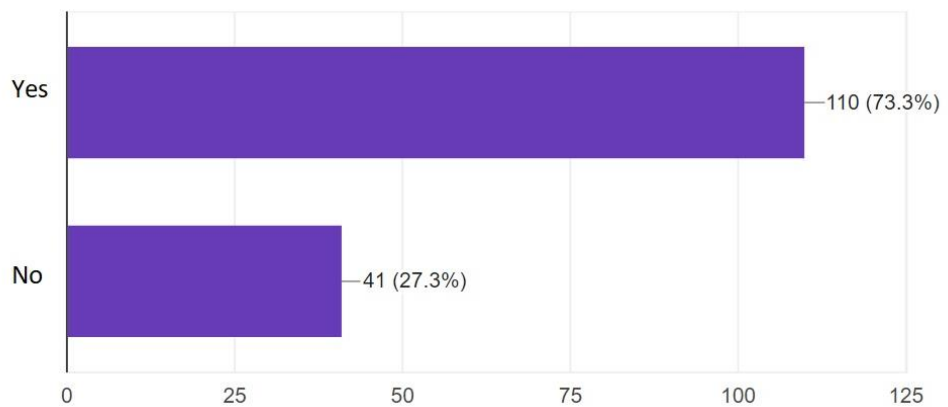
150 Votes



**x**

- Have you conducted a laboratory test that tells you are suffering from a deficiency?

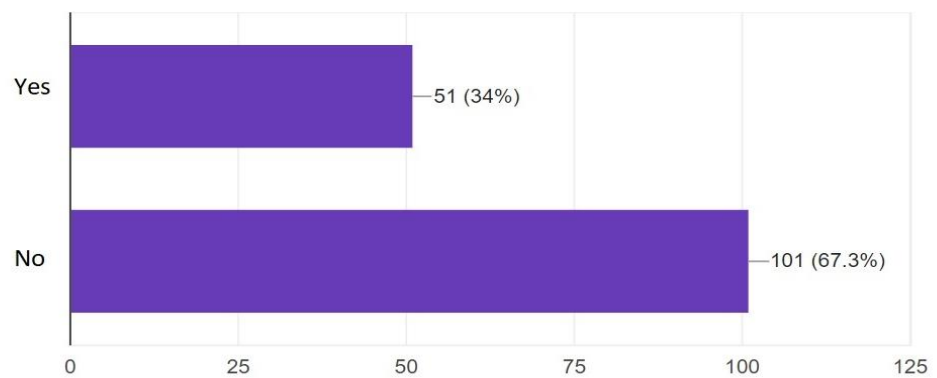
150 Votes



**xi**

- Have you conducted a laboratory test after using the supplement and noticed an increase in the percentage of some nutrients (vitamins and minerals)?

150 Votes



**Figure 2 (i-xi):** Results of Questions to measure the prevalence and awareness of the use of cosmetic supplement.



Compared to a previous study conducted in Saudi Arabia, our study showed that there is an increase in the prevalence of the use of supplements, but with an increase in awareness of the need to take medical advice and perform the necessary analyzes to know the extent of deficiency and the body's needs [6,12]. Although that there are cases and another aspect that is not good with the use of these supplements, such as: taking the supplement with a medication may affect how well the medication works. When a person has taken two types of supplement, he does not realize that he should not take them all at once because they combine with each other and the body cannot absorb them [5]. There is another aspect of the supplements, which are the side effects related to taking cosmetic supplements in unsafe doses. Among these side effects related to taking cosmetic supplements in unsafe doses, and from these side effects, we start with common minerals, which is that eating high amounts of zinc causes symptoms of toxicity (nausea, vomiting, lethargy) [13]. It may cause high amounts of selenium, which may increase the incidence of blood sugar type 2 [14]. And we come to the commonly used vitamins, including vitamin A, and the toxicity of this vitamin can occur either from the topical or oral form, and it causes irritation to the skin and peeling, and the fat-soluble vitamins are capable of accumulating in the body [14]. High doses of vitamin C have also been linked to the formation of kidney stones [15].

## 5. Conclusions

The study showed that there is an awareness of the need to take cosmetic supplements after medical advice and conduct the necessary analyzes to find out if there is a deficiency that requires taking them. Therefore, there must be awareness programs about the consumption of supplements and the monitoring of those promoting them. And educating the consumer about the need to consult that, there are no bad effects in the short and long term. Finally, Dear consumer, be sure to consult your doctor and do laboratory tests before using it.

## Conflicts of interest

There are no conflicts to declare.

## Author Contributions

I. R., M. A and. W. A. Conceived, designed performed the experiments, analysed the data and contributed reagents/materials/analysis tools. I.R. and W. A Wrote and reviewed the paper.

## Acknowledgements

Researchers would like to thank the Deanship of Scientific Research, Qassim University for funding publication of this project and thank all the participants for their effort and time to fill out the Questionnaire.

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