



Republic of Iraq
Ministry of Higher Education
And Scientific Research
Al-Zahrawi University College
Department of Pharmacy



**Prevalence and use of food supplement among the elderly
people in Iraq**

A Fifth-Year Graduation Project

Submitted to the Al-Zahrawi University College and the
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Partial Fulfillment of the Requirements for the Degree of Bachelor
of Science in Pharmacy

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Abstract:

Background:

Food supplements are widely used products aimed at enhancing nutritional intake and supporting overall health. These products come in various forms, including vitamins, minerals, herbs, and amino acids, and are often used to fill dietary gaps, improve immunity, or address specific health conditions. While they can provide benefits. The growing market for supplements highlights the need for proper education and regulation to ensure their safe and effective use. In regions like Iraq, factors such as awareness, accessibility, and cultural practices significantly influence supplement consumption trends

Aim:

Assessment of use the food supplement among elderly people in Holy Karbala and Holy Najaf cities.

Method:

This cross-sectional study, 400 elderly aged ≥ 50 years in two cities in Iraq were selected by the quota method. They filled a survey (a 20-item short-form health survey and face-to-face interviews. The data were analyzed using XL stat 2019.

Results:

The most percent of participant include age group of the elderly was group A (50-55) years. Female volunteer was predominant in participation in this study. In different terms of benefit of use of food supplement ,most appropriate time to use it, number of food supplement that the participant prefer to use and the goodtime to use it and place that people prefer to get the food supplement.

Conclusion:

This study reveals the vital role food supplements play in the lives of elderly individuals in Iraq, particularly in Najaf and Karbala. The findings underscore their importance in maintaining health, boosting energy, and enhancing quality of life.

Keywords:

Food supplement, elderly people, Influencing factors, benefit use, age, participants.

Introduction

As the global population ages, the nutritional well-being of elderly individuals has become an essential concern. This trend is evident in Iraq, where the elderly population (aged 60 years and above) continues to grow. Ensuring adequate nutrition is critical for maintaining health, preventing chronic diseases, and enhancing the quality of life among the elderly. However, various factors such as physiological changes, chronic illnesses, and socioeconomic constraints make it challenging for many elderly individuals to meet their nutritional needs through diet alone. Consequently, the use of food supplements has emerged as a vital strategy to address these nutritional gaps.⁽¹⁾

Food supplements, encompassing vitamins, minerals, and other nutritional substances, play a crucial role in complementing the diet and ensuring that the elderly receive the essential nutrients necessary for optimal health. These supplements can help address deficiencies that may arise from inadequate dietary intake, malabsorption issues, or increased nutritional requirements due to age-related health conditions. For instance, calcium and vitamin D supplements are commonly recommended to prevent osteoporosis and support bone health, while iron supplements can help combat anemia, a condition prevalent among older adults.⁽²⁾

The use of food supplements among elderly Iraqi citizens is influenced by a complex interplay of factors. Cultural beliefs and traditional practices significantly shape dietary habits and the acceptance of supplement usage. In Iraq, traditional foods and herbal remedies hold great cultural significance, and the integration of modern food supplements into the diet varies widely across different regions and communities. Additionally, access to healthcare services and the availability of supplements are critical factors that determine the extent to which elderly individuals can benefit from these nutritional aids.⁽³⁾

Research indicates that the prevalence of malnutrition and nutrient deficiencies among the elderly in Iraq is a pressing public health issue. Studies have shown that many elderly individuals do not meet the recommended dietary allowances for essential nutrients such as vitamins B12, D, calcium, and iron. This can exacerbate existing health conditions and increase the risk of developing new health problems. Therefore, food supplements can serve as an effective strategy to mitigate these deficiencies and improve overall health outcomes.⁽⁴⁾

Despite the potential benefits of food supplements, their use among the elderly population also presents several challenges. One of the primary concerns is the risk of over-reliance on supplements, which can lead to imbalances or adverse effects if not used appropriately. It is essential for healthcare professionals to provide guidance on the correct usage of supplements and to monitor their impact on the health of elderly patients. Furthermore, the cost of supplements can be a significant barrier for many elderly individuals, particularly those with limited financial resources. Ensuring equitable access to affordable and high-quality supplements is crucial for addressing the nutritional needs of this vulnerable population.(5)

To effectively address the nutritional needs of elderly Iraqis, it is necessary to consider the unique challenges they face.(6) Cultural beliefs and practices must be taken into account when recommending supplements, and efforts should be made to educate both the elderly and their caregivers about the importance of balanced nutrition and the appropriate use of supplements. Additionally, healthcare providers should be equipped with the knowledge and resources to offer tailored nutritional advice and monitor the health outcomes of their elderly patients.(7)

Moreover, public health campaigns and community programs can play a vital role in raising awareness about the importance of nutrition and the appropriate use of food supplements among the elderly.(8) Collaborations between government agencies, non-governmental organizations, and healthcare providers can help ensure that elderly individuals have access to the necessary resources and information to maintain their nutritional well-being. Research and development efforts should also focus on creating culturally acceptable and cost-effective supplement formulations that cater to the specific needs of the elderly population in Iraq.(9)

In conclusion, the use of food supplements among elderly Iraqi citizens is a multifaceted issue that requires careful consideration of various factors, including cultural beliefs, healthcare access, and economic constraints. By understanding the unique needs and challenges faced by the elderly population, it is possible to develop effective strategies to support their nutritional well-being and enhance their quality of life. This paper will delve deeper into the role of food supplements in the diet of elderly individuals in Iraq, exploring both the benefits and potential pitfalls associated with their use. Through comprehensive analysis and evidence-based recommendations, this study aims to contribute to the ongoing efforts to improve the health and well-being of elderly citizens in Iraq.(10)

Methods:

A descriptive study was carried out on the first of October [2024] to get 400 of elderly people. The study was conducted in Iraq in two big modernistic and densely populated provinces: Holy Karbala and Holy Najaf. The respondents' characteristics were age and gender. The age characteristic was divided into five categories which were 50-55, 56-60, 61-65 and >65 years. Gender was classified into male and female. The present study which was approved by the Research Council of Al Zahrawi collage University, In pharmacy department was conducted from October 2024 to March 2025 on 400 elderly aged ≥ 50 years selected from two cities (based on the last population and housing census using the quota method. After making the list of two cities according to the statistics of the elderly in the urban areas of the province based on gender and the proportion of each region in the sample size, the questionnaires were completed through face-to-face interview. Inclusion criteria for the elderly in this study included age ≥ 50 years, willingness to participate in the study, resident of Iraqi people and ability to answer the questions, while exclusion criteria were unwillingness to cooperate further. Participants were informed that the results of the study would be kept confidential. Public places in the city, including clinics, medical shop, mosques, parks, weekly markets, and clubs, were used to facilitate reaching the elderly. The sample size (n) was 400 based on different type of activity that may done by participants. On the other hand, assuming that the elderly might not answer the questionnaires correctly in some cases due to their age, more questionnaires were distributed (about 480), and finally 400 correct and accurate questionnaires were evaluated. To evaluate the correct use of food supplement that include vitamins and minerals and what the participants prefer to use the type of dosage form of the food supplement like tablets ,capsules ,injection and etc. The SF -20 questionnaire has been shown to be suitable for clinical research

and practice, general population surveys, and health policy evaluation. This questionnaire was adapted to the social and cultural conditions of Iraq.. The concepts measured by this questionnaire are not specific to a particular age, group, or disease. The purpose of this questionnaire was to assess health status in terms of use of the food supplement which was determined by acquire health domains. The questionnaire includes 20 questions that measure different health domains. The questionnaire also includes a question in which the person evaluates his or her health status in the last month.

Results:

Among 400 random elderly people samples that participate in this study in 2 cities ,by submit the questionnaire that prepared by the researcher in pharmacy department of Al-Zahrawi collage university and choose the sample(elderly people) randomly to demonstrate use of food supplements in two Iraqi cities include Holy Najaf and Holy Karbala city and the result that be collected include the following figures show the different domains as following :

Figure -1 show the gender of participants in this study show that the high percentage of participation was female more than male shown as below

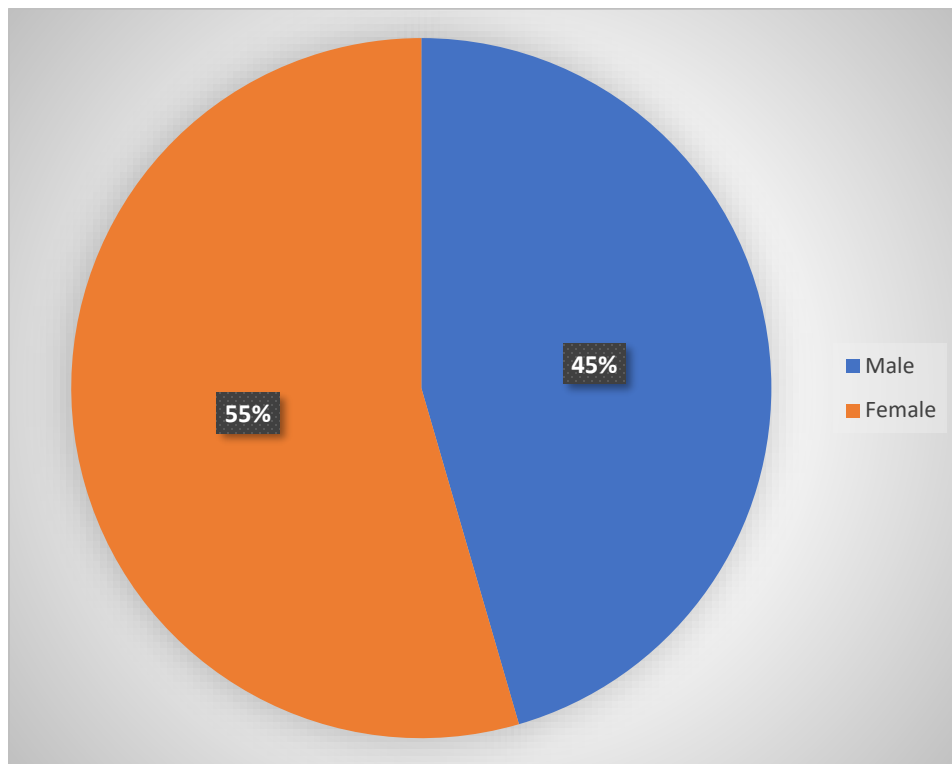


Figure -2 show the recurrent use of food supplement between the people and show more the half of participants prefer to have the multivitamins.

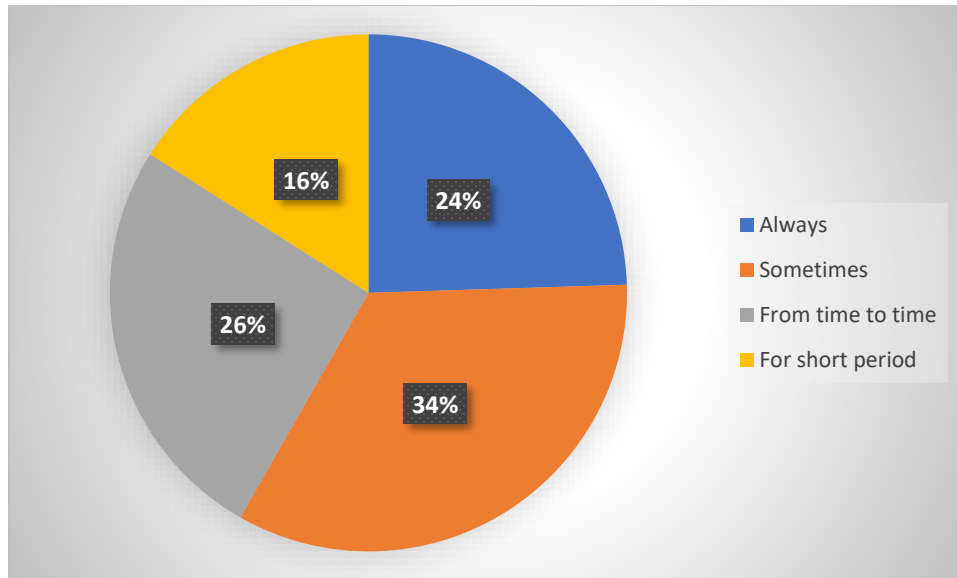


Figure -3 show the age group of participant that appear more percent of participants was 50-55 years more numbers that got during collecting the samples

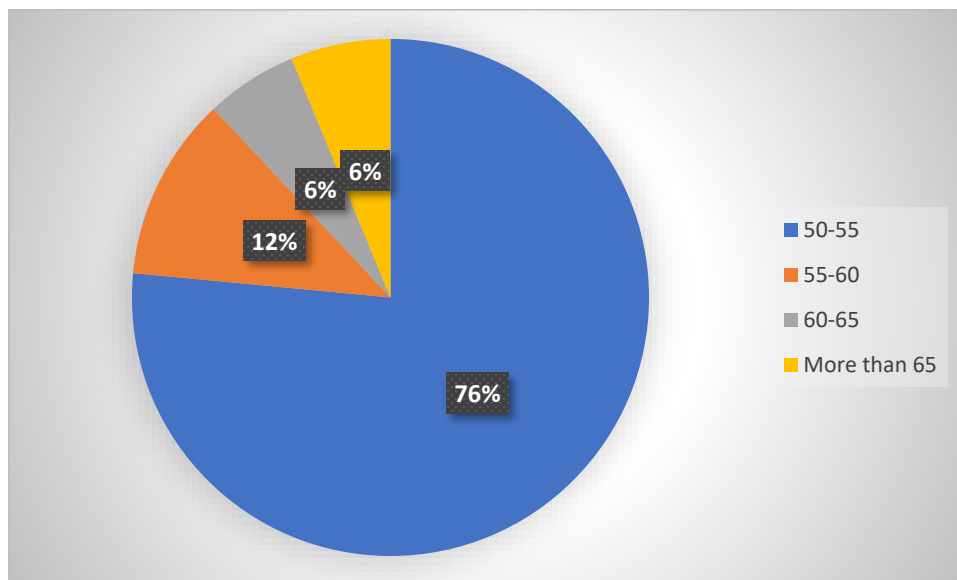


Figure-4 Show the form of medicine that the participant prefer to have when he take the types of foods supplements

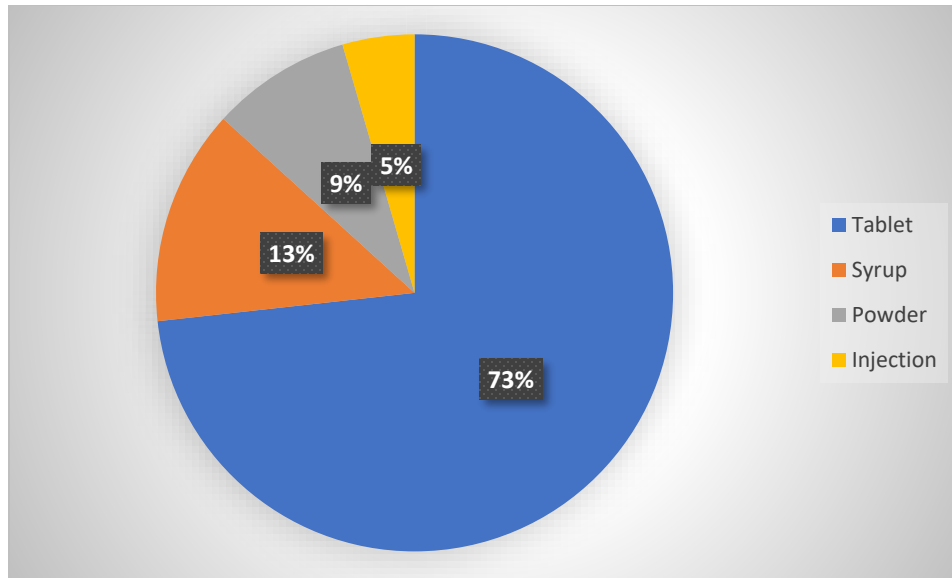


Figure -5 Show the way that the participant start to take the food supplement

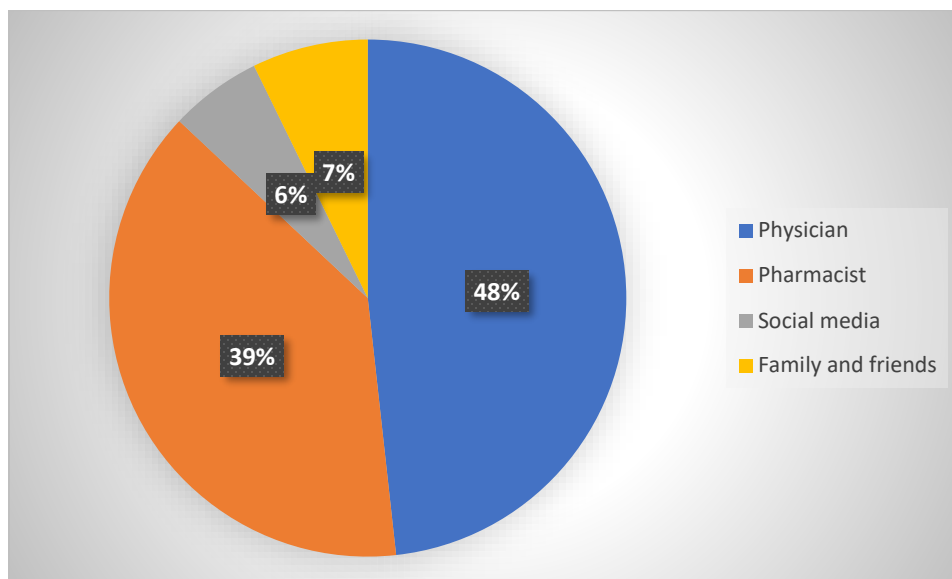


Figure -6 Show the interesting for the benefit behind use of food supplement, high percent show they are interesting to use the food supplement

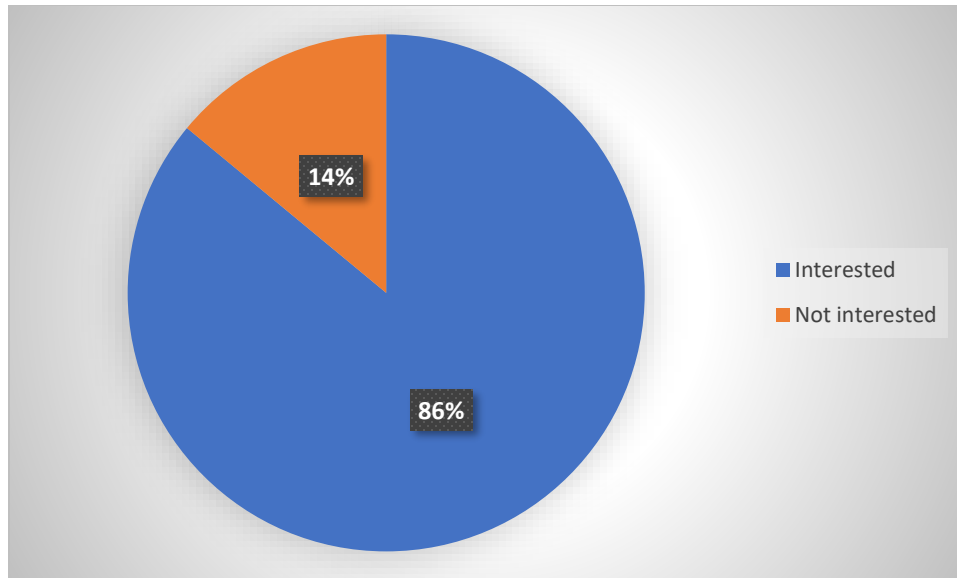


Figure-7 Show the main reason for the use of food supplement, it give high percent use of food supplement to maintain their health

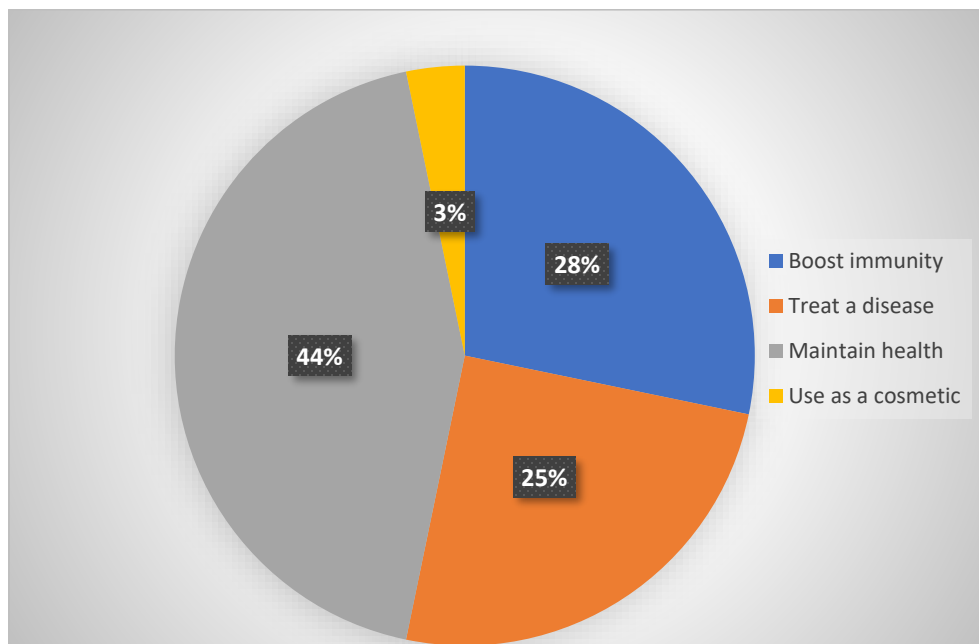


Figure-8 Show if the people interest in origin of the food supplement and it give high percent looking for a good company.

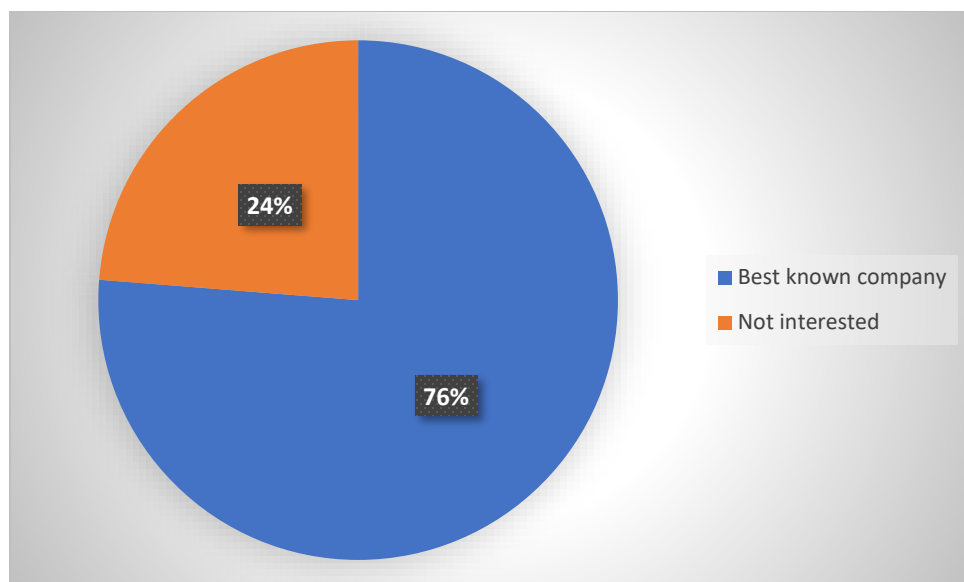


Figure-9 show the period of time that the people have the food supplement ,it give that high percent prefer to use the supplement every day.

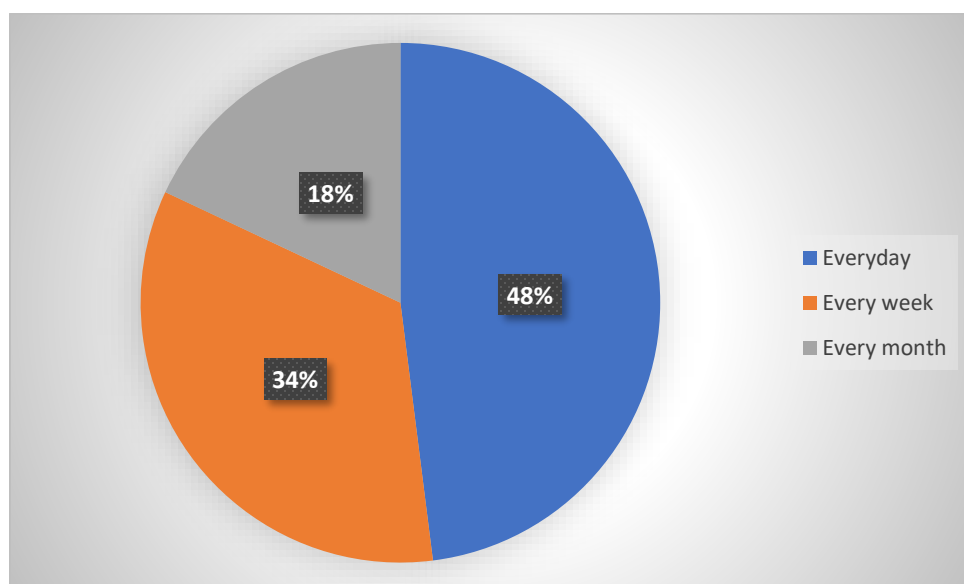


Figure-10 Show the preferred supplement administration time .

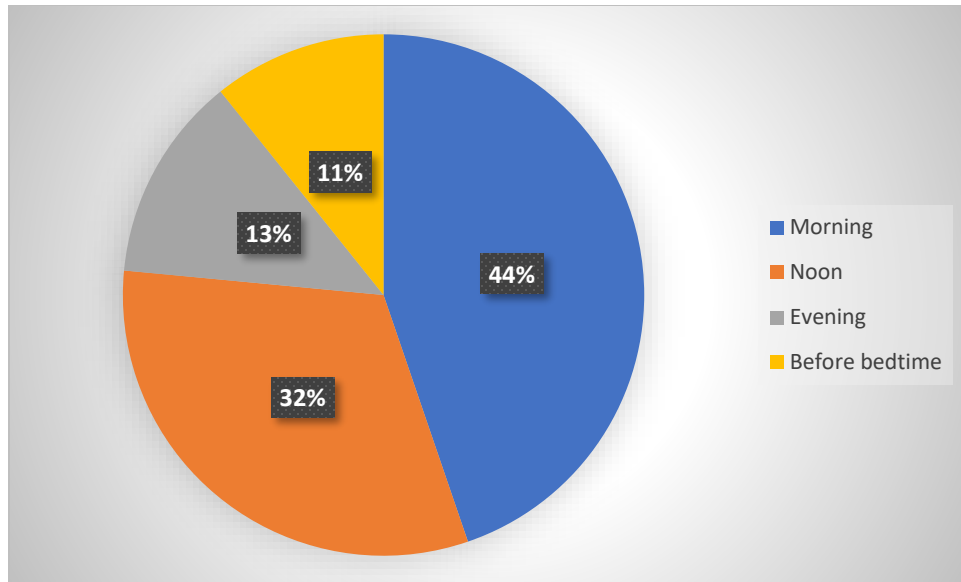


Figure-11 Show how the participant is continuing have the food supplement and don't forget and high percent of answer depend on their memory

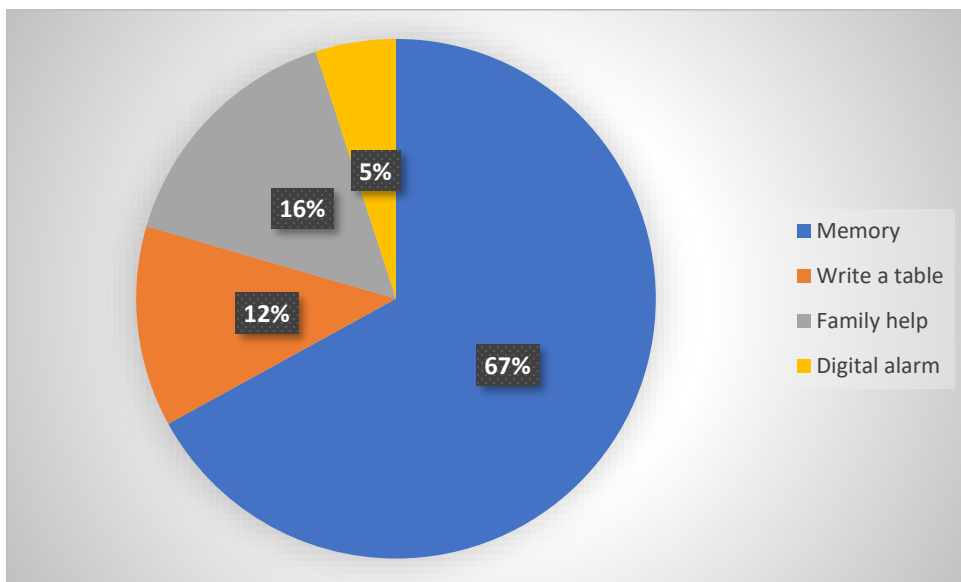


Figure-12 Show a place of buying and shopping the food supplement and the high answer show they buy from the medical shop.

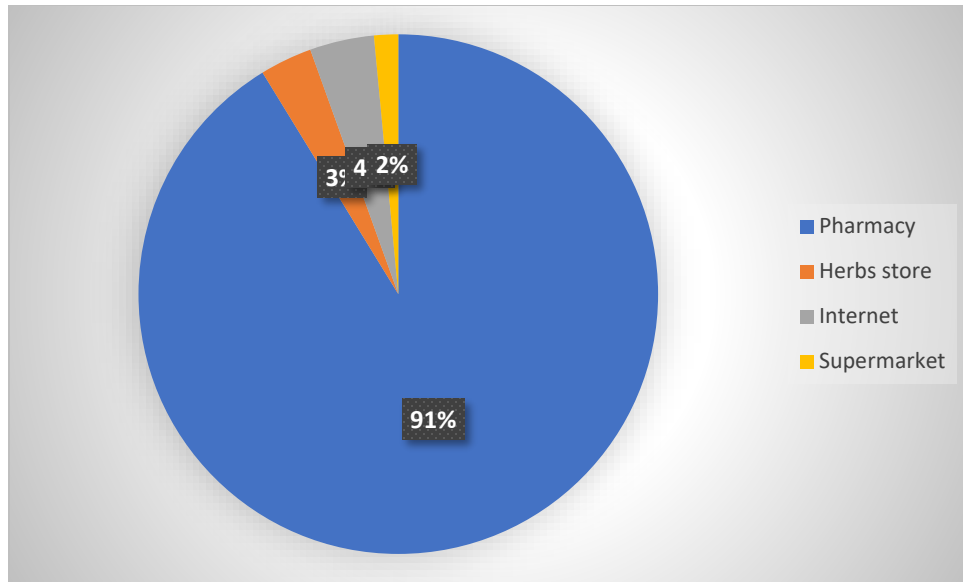


Figure-13 Show the nature source of food supplement that the participant prefer to have it, most of peoples prefer nature material to have it.

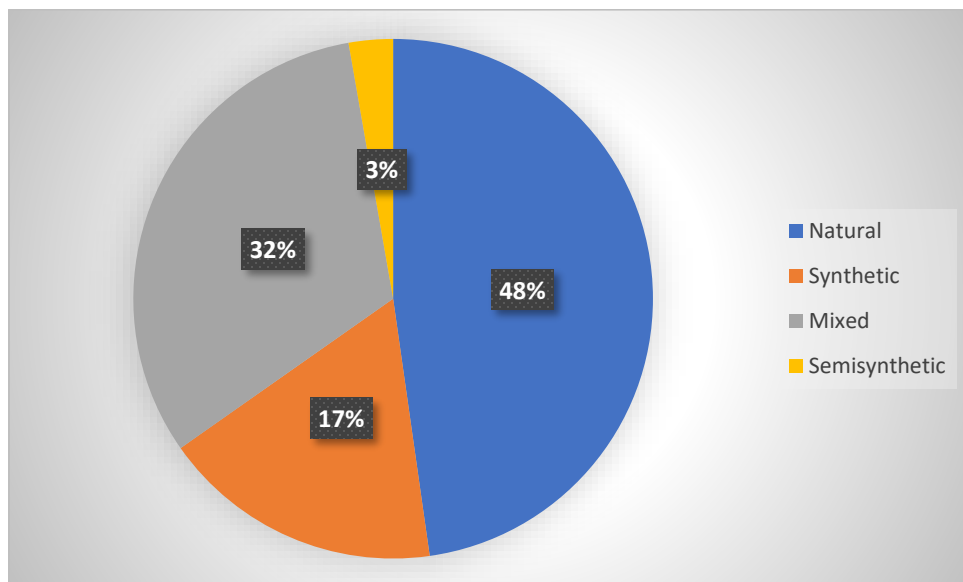


Figure-14 Show the number of supplement that participant take it, most of peoples prefer to take one type only.

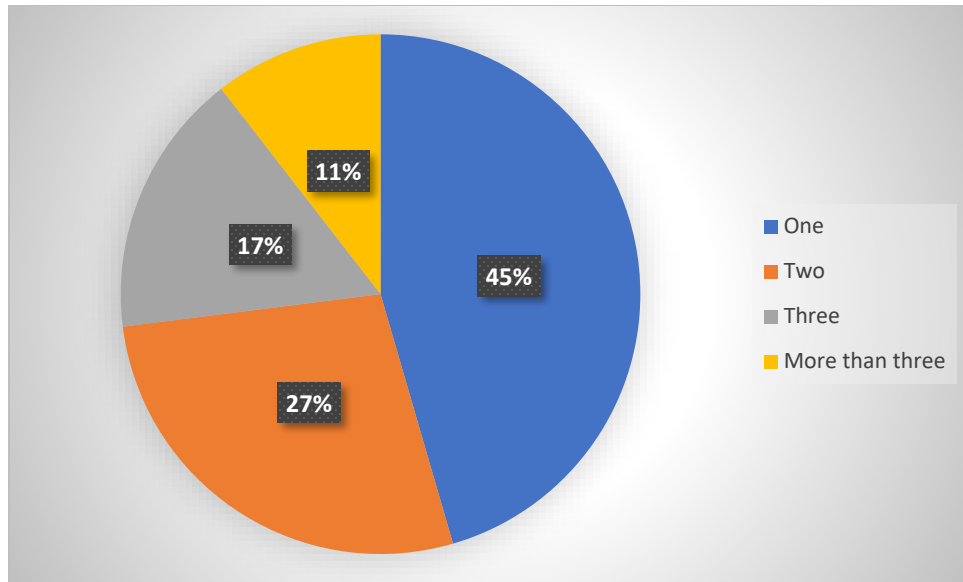


Figure-15 Show the if the participant satisfy for use the food supplement, high percent give satisfy for using the food supplement.

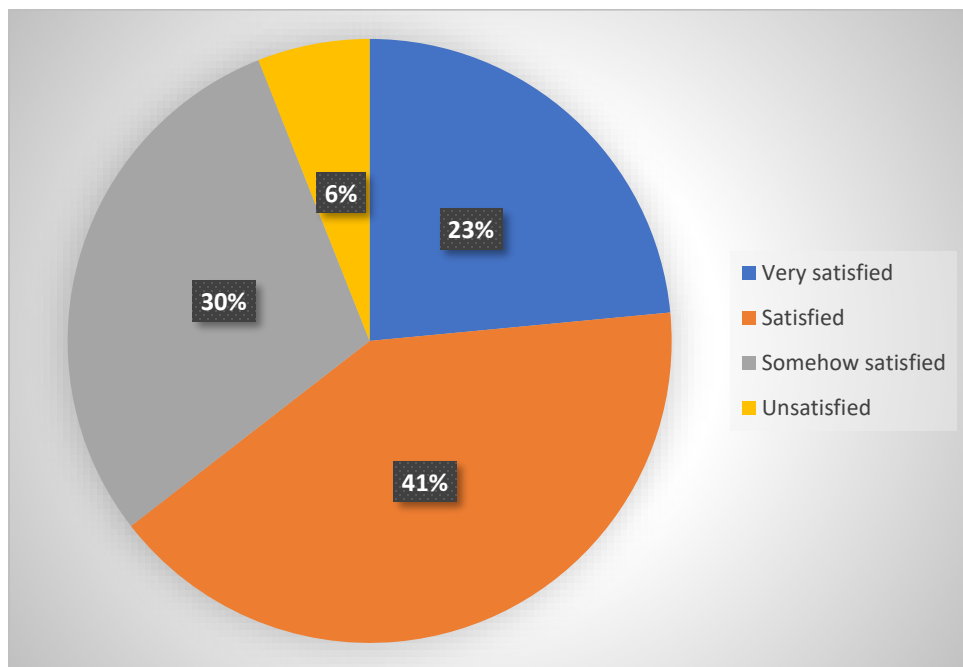


Figure-16 Show if the participant got energy to do their vital activity daily and high percent show they got energy.

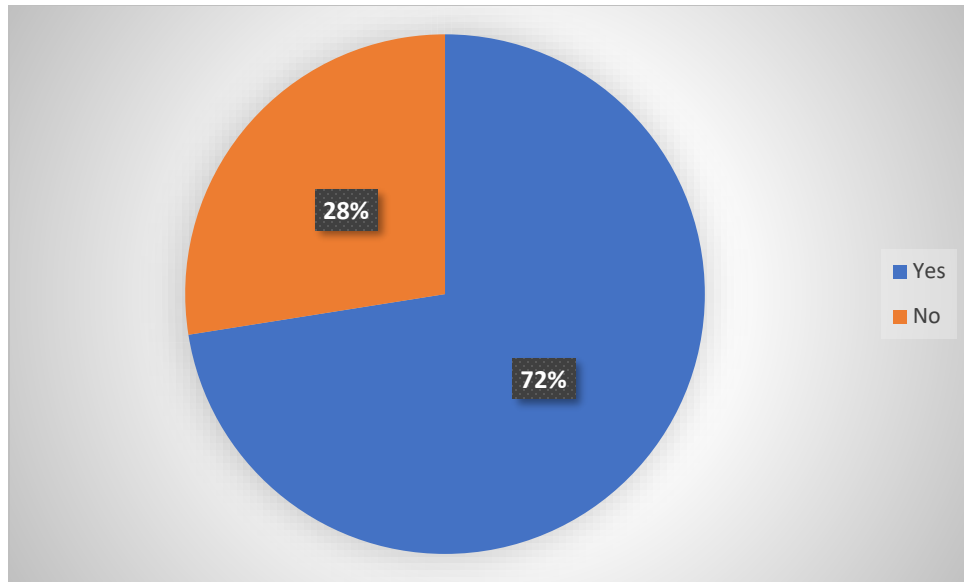


Figure-17 Show that if the food supplement substituted for use the medicine and chemical and high percent tell that not replacement effect.

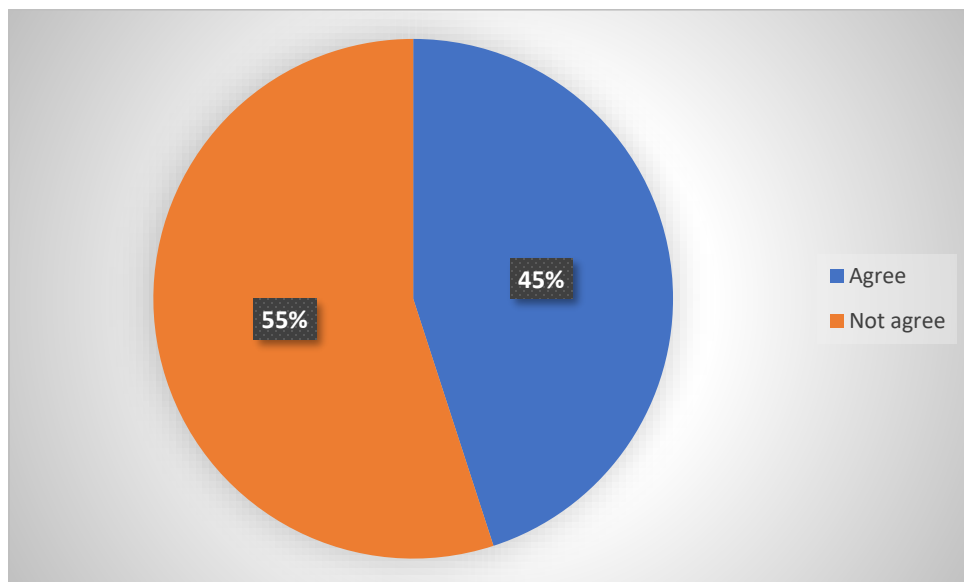


Figure-18 Show that any side effect appear when participant use the food supplement ,high percent give no any side effect appear when used it.

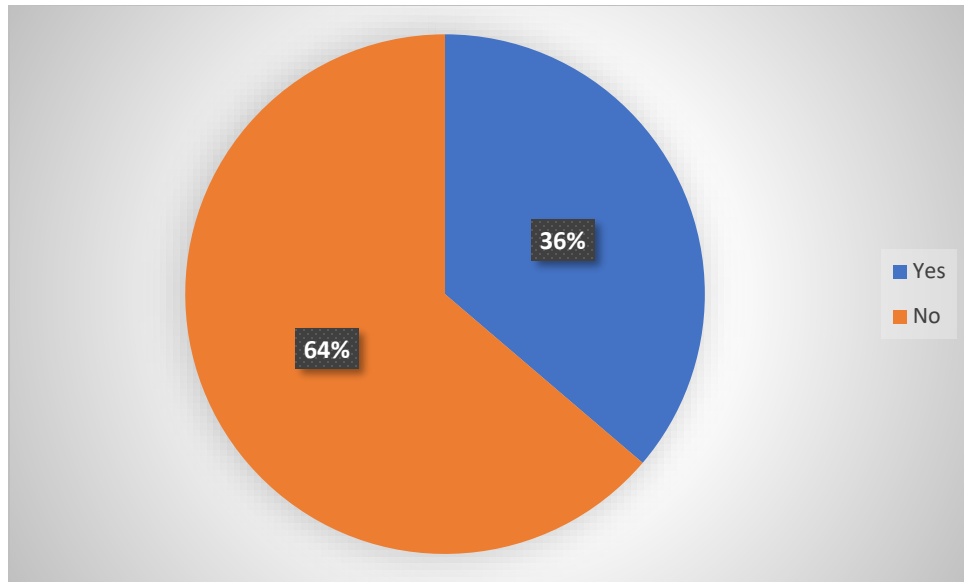


Figure-19 Show if any additional good effect appear after used the food supplement, high percent got good additional effect after used it.

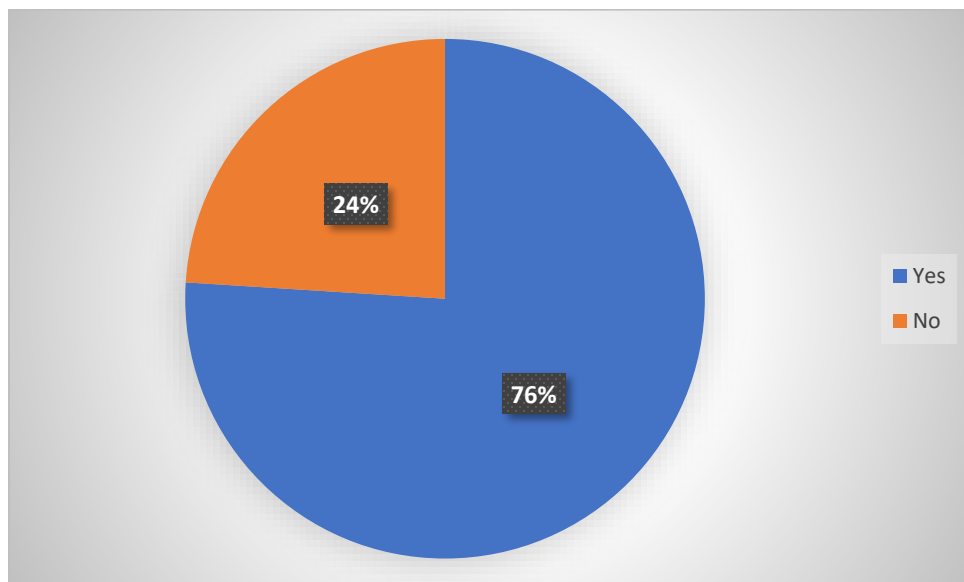


Figure-20 Show how the food supplement effect on the quality of life of user and high percent give the use of food supplement give good effect on the quality of life

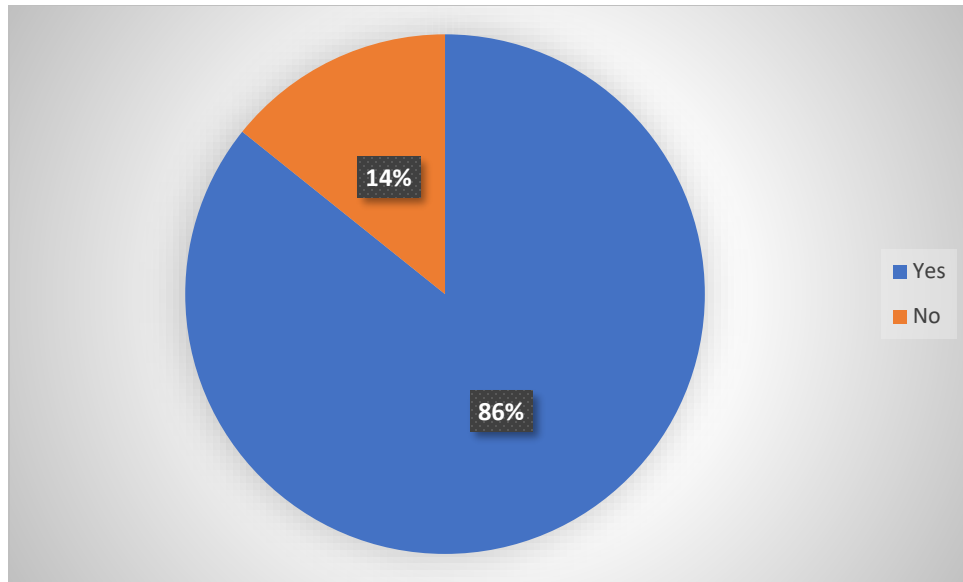


Table 1: Association of question 2 against questions listed below.

Q	P-value
1	0.0003
15	<0.0001
16	<0.0001
17	0.0002
18	<0.0001
19	<0.0001
20	<0.0001

It show there is significant association between Q2 “ask about the frequency of use of food supplement” and other questions that mention in the table-1.

Discussion:

The study sheds light on the significant patterns of food supplement use among elderly individuals in Najaf and Karbala. Key findings include the predominance of female participants, suggesting a higher inclination or awareness among women about supplement usage. The majority preference for multivitamins highlights their widespread acceptance and perceived benefits within the community.

Participants aged 50-55 formed the largest group, emphasizing a transitional age bracket where health maintenance becomes a priority. Additionally, natural sources of supplements and trusted companies were preferred, reflecting concerns about quality and reliability. Daily consumption by a high percentage indicates consistency in supplement use, likely driven by their effectiveness and ease of incorporation into routine life.⁽³⁾

An interesting insight emerged with the strong association between supplement use and improved quality of life. Participants reported satisfaction, increased energy,

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An interesting insight emerged with the strong association between supplement use and improved quality of life. Participants reported satisfaction, increased energy, and additional benefits without significant side effects. However, it's notable that supplements were not perceived as replacements for conventional medicine, underlining their role as complementary aids rather than substitutes.⁽¹⁴⁾

The frequent purchase from medical shops reflects trust in professional recommendations, while the preference for nature-derived supplements aligns with growing trends toward holistic health approaches.⁽¹⁵⁾

Conclusion:

This study reveals the vital role food supplements play in the lives of elderly individuals in Iraq, particularly in Najaf and Karbala. The findings underscore their importance in maintaining health, boosting energy, and enhancing quality of life. However, the preference for wellknown brands and natural sources points to the need for greater regulation and awareness to ensure safety and effectiveness.

Encouraging education around the proper use of supplements and addressing potential misconceptions can further optimize their benefits for the elderly population. Future studies could explore long-term effects and the socioeconomic factors influencing supplement use to create more targeted health interventions.

In conclusion, the use of food supplements among elderly Iraqi citizens is a multifaceted issue that requires careful consideration of various factors, including cultural beliefs, healthcare access, and economic constraints. By understanding the unique needs and challenges faced by the elderly population, it is possible to develop effective strategies to support their nutritional well-being and enhance their quality of life. This paper will delve deeper into the role of food supplements in the diet of elderly individuals in Iraq, exploring both the benefits and potential pitfalls associated with their use. Through comprehensive analysis and evidence-based recommendations, this study aims to contribute to the ongoing efforts to improve the health and well-being of elderly citizens in Iraq.

Limitation study:

There were several limitations in this study as most respondents had lower education level which caused the respondents did not properly comprehend the questions. Moreover, the study only described elderly' perceptions to the questions included in the food supplement questionnaire which should be explored further regarding the reasons for choosing a certain questions. This should be performed in order to discover detailed descriptions relating to food supplement in elderly also more sufficient of time is effect on the quantity and quality of study.

Acknowledgement:

It is suggested that further studies should be conducted to evaluate the supplement of sick and healthy elderly people, and that future researchers should conduct a similar study in other cities and provinces in the country so that more confidence can be gained in the use of these results by comparing the results of different researches in this area. In addition, future studies should also investigate other factors influencing the improvement of health levels of the elderly. Since the Iraqi population has been very young in recent years, most planning has focused on youth issues, but the growing trend in the elderly requires further study and planning. As a rule, there are always limitations in research dealing with the study and understanding of human activities, and the problem of collecting information from individuals always arises, so its generalization to other societies should be done with greater caution and care.

References:

1. Al-Kazrajy, L. A., & Hammadi, Z. F. (2020). Mini nutritional assessment of sample of Iraqi elderly people attending geriatric unit at Baghdad teaching hospital. *Annals of Tropical Medicine and Public Health*, 23(S13B), SP231380.
2. National Institute on Aging. (n.d.). Dietary supplements for older adults. Retrieved from <https://www.nia.nih.gov/health/vitamins-and-supplements/dietary-supplements-older-adults>.
3. Shihab, S. S., Jawad, H. M., Nasir, Z. M., & Jasim, E. M. (2022). Use of dietary supplement in Iraq. *Journal of the Faculty of Medicine Baghdad*, 64(1), 1871. <https://doi.org/10.32007/jfacmedbagdad.6411871>
4. Shanshal, A. M., Aljorani, R. H., & Taha, R. N. (2023). Frequency of Vitamins and Nutritional Supplements Use among Iraqi People in Baghdad City. *Al-Rafidain Journal of Medical Sciences*, 4(1), 104. <https://doi.org/10.54133/ajms.v4i.104>
5. Pharma Korazon. (n.d.). Retrieved from <https://pharmakorazon.com/>
6. Life Company. (n.d.). Retrieved from <https://www.lifephc.com/>
7. Sweetcare. (n.d.). Retrieved from <https://www.sweetcare.com/iq/osmobiobic-immuno-senior-immune-defenses-food-supplement-p-019790oz?st=01>
8. Khalaf, A. S., & Al-Mashhadani, F. A. (2021). Nutritional status and dietary habits among elderly people in Basrah, Iraq. *International Journal of Health Sciences*, 15(5), 44-53. <https://doi.org/10.5958/2349-2988.2021.00024.1>
9. Alwan, A. (2022). Nutritional assessment and dietary supplementation among elderly populations in Baghdad. *Iraqi Journal of Health Sciences*, 30(2), 60-72. <https://doi.org/10.1016/j.ijhs.2022.03.007>
10. Ministry of Health, Iraq. (2022). National Nutrition Strategy 2022-2027. Retrieved from <http://moh.gov.iq/nutrition-strategy>.
11. Yuan C, Chen H, Wang Y, Schneider JA, Willett WC, Morris MC. Dietary carotenoids related to risk of incident Alzheimer dementia (AD) and brain AD neuropathology: a community-based cohort of older adults. *Am J Clin Nutr* 2021;113:200-208.
12. WHO By 2024, the 65-and-Over Age Group Will Outnumber the Youth Group: New WHO Report on Healthy Ageing. [(accessed on 30 October 2023)]. Available online:
13. Pleshkova N., Tokhiriyon B., Vekovtsev A., Poznyakovsky V.M., Lapina V., Takaeva M.A., Sorokopudov V.N., Karanina E.V. Efficacy of Biologically Active Food Supplements for People with Atherosclerotic Vascular Changes. *Molecules*. 2022;27:4812. doi: 10.3390/molecules27154812.

14. Pazan F., Wehling M. Polypharmacy in Older Adults: A Narrative Review of Definitions, Epidemiology and Consequences. *Eur. Geriatr. Med.* 2021;12:443–452. doi: 10.1007/s41999-021-
15. Costa J.G., Vidovic B., Saraiva N., do Céu Costa M., Del Favero G., Marko D., Oliveira N.G., Fernandes A.S. Contaminants: A Dark Side of Food Supplements? *Free Radic. Res.* 2019;53:1113–1135. doi: 10.1080/10715762.2019.1636045

A study on prevalence and use of food supplement among the elderly people in Iraq

1. What is the participant's gender?

- Male
- Female

2. Do you take dietary supplements?

- Yes, always
- Occasionally
- From time to time
- For a short period

3. What is the participant's age?

- Between 50 and 55 years
- Between 55 and 60 years
- Between 60 and 65 years
- More than 65 years

4. What is your preferred dosage form when taking dietary supplements?

- Tablets
- Liquid
- Powder
- Injections

5. Before using dietary supplements, whom do you consult for advice?

- Doctor
- Pharmacist
- Family, relatives, or friends
- Social media

6. Before using dietary supplements, do you care about knowing their benefits, correct usage (before/after meals, morning/night, etc.), and side effects?
 - Interested
 - Not interested

7. What is the main reason for using dietary supplements?
 - Boosting immunity
 - Helping in disease treatment
 - Maintaining health
 - Using them as a cosmetic product

8. How important is the manufacturer's reputation when buying dietary supplements?
 - I prefer a well-known company
 - It doesn't matter to me

9. How often do you prefer taking dietary supplements?
 - Daily
 - Weekly
 - Monthly

10. When do you take dietary supplements?
 - Morning
 - Afternoon
 - Evening
 - Before bed

11.How do you ensure you take your dietary supplements regularly?

- Relying on memory
- Writing a schedule
- Using a digital reminder
- With the help of family

12.Where do you buy your dietary supplements?

- Pharmacy
- Herbal store
- Supermarket
- Online

13.What is your preferred source of dietary supplements?

- Natural
- Synthetic
- Semi-synthetic
- A mix of synthetic and natural

14.How many types of dietary supplements do you take?

- One type
- Two types
- Three types
- More than three types

15.

Are you satisfied with the benefits you gained from using dietary supplements?

- Very satisfied
- Satisfied
- Neutral
- Not satisfied at all

16.Do you feel that the dietary supplements you take provide you with enough energy for daily activities?

- Yes
- No

17.Do you think dietary supplements can replace medication?

- I agree
- I disagree

18.Have you experienced any side effects when taking dietary supplements?

- Yes
- No

19.Do you notice additional benefits to your body when taking dietary supplements?

- Yes
- No

20.Do you think dietary supplements have a positive impact on people's quality of life?

- Yes
- No