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PREVALENCE OF PEOPLE THAT USING MULTIVITAMINS AND EXPERIENCING A SIDE EFFECT IN SAUDI ARABIA SA

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ABSTRACT

Introduction: Multivitamins Are Also Used To Treat Vitamin Deficiencies. Constipation And Diarrhea May Occur When We Use Them. We Concerned To See The Prevalence For Using Multivitamins Supplementation & Awareness Of Their Side Effects Among Saudi People. **Methods:** We Will Conduct A Cross Sectional Study And Data Collected By Distributing An Electronic Questionnaire In 6/3To15/8/2017 And Approved By The King Faisal University In Alhass, SA. Both Gender Above 18 Years Were Included And Excluded People Below Them. Statistical Analyses Were Performed Using SPSS. **Result:** This Study Was Applied On 471persons From Different Areas Of Kingdom Of Saudi Arabia. Most Of Them Were Female 67.5 %.The Age Of Our Studied Group Was Above 18 Years. Most Of Them Was Healthy, Pre-University, From Western Area And Used Multivitamins For Weight Gain. 15.5% Had Harmful Effect And 69.6% Had Vitamins Or Minerals Deficiency (51.7% Iron Deficiency). 43.1% Used Them with No Prescription And 85% Used As Pill. 80.8% Considers Them Are Important To Them Health And 35.8% Believe There Is No Difference Between Used Them With Or Without Medical Advice. 24.9% Believe Them Have No Side Effects And16.3% Believe That Them Are Sufficient For The Variety And Quantity Of Food.70.7% Believe That The Amount Of Vitamins In The Food Is Not Sufficient For The Daily Body And 42.5% Of Them Read About Vitamins From Scientific Books. **Conclusion:** The Majority Of The Participants Were Use It According To Medical Advice And There Is A Less Percentage Of People That Experienced A Side Effect From Using That Supplementations. **Objectives:** To Determine

The Prevalence, Reasons, Source Of Information Of Multivitamins Supplement Uses, And Their Side Effects.

KEYWORDS: Multivitamins, Saudi Arabia.

INTRODUCTION

Multivitamins Are A Combination Of Many Different Vitamins That Are Normally Found In Foods And Other Natural Sources. Multivitamins Are Used To Provide Vitamins That Are Not Taken In Through The Diet. Multivitamins Are Also Used To Treat Vitamin Deficiencies (Lack Of Vitamins) Caused By Illness, Pregnancy, Poor Nutrition, Digestive Disorders, And Many Other Conditions. Many Multivitamin Products Contain Minerals Such As Calcium, Iron, Magnesium, Potassium, And Zinc.[1]

Multivitamins Can Come In The Form Of Tablets, Capsules, Powders Or Liquids.[2] Constipation, Diarrhea, Or Upset Stomach May Occur. These Effects Are Usually Temporary And May Disappear As Your Body Adjusts To This Medication.[3] Less Serious Side Effects May Include: Headache, Or Unusual Or Unpleasant Taste In Your Mouth.

Minerals (Especially Taken In Large Doses) Can Cause Side Effects Such As Tooth Staining, Increased Urination, Stomach Bleeding, Uneven Heart Rate, Confusion, And Muscle Weakness Or Limp Feeling. Signs Of An Allergic Reaction: Hives, Difficulty Breathing, Swelling Of Your Face, Lips, Tongue, Or Throat.[4]

A Descriptive Cross-Sectional Study On 120 Adult Participants From The General Public Was Conducted. The Participants Were Interviewed And Information Was Collected In A Predesigned Structured Questionnaire. The Data Was Analyzed And Expressed As Counts And Percentages. Of The 120 Study Participants, 66 Were Males And 54 Were Females. Results Revealed That 68.33% (82) Of The Participants Were Users Of Multivitamin Supplements. Out Of The Users, 69.5% (57) Participants Consumed On The Advice Of Doctors, 18.2% (15) Were Self-Prescribers While 12.1% (10) Relied On Advice Of Family Or Friends. Among The Users, 70.96% Considered Such Supplements To Be Helpful. Reasons Quoted For Self-Medication Use Of Multivitamins Were Multiple Such As Maintenance Of General Health (55%), To Allay Weakness Or Fatigue (20%), To Improve Appetite (15%) Etc. Majority Of The Participants Were Unaware Regarding The Correct

Indications For Multivitamin Supplementation. Regarding Knowledge About The Natural Sources Of These Vitamins, As Many As 76% Showed Ignorance.[5]

- Four Hundred Patients Were Interviewed During The Period Of July To September 2008, At The Out-Patient Clinics, Aga Khan University Hospital, Karachi. A Pre-Tested And Structured Questionnaire Was Used To Collect Information. It Consisted Of Questions Regarding Demographics, Awareness Of Vitamin Supplements And Its Consumption, Reasons For Usage And Its Effects.

The Purpose Of The Study Was Explained And Assurance Of Confidentiality Was Given. After Obtaining Written Consent, Eligible Individuals Were Interviewed. Statistical Package For The Social Sciences Version 19.0 Was Used To Analyze The Data. The Results Revealed That 98% Of The Respondents Were Aware Of Vitamin Supplements. The Most Known Vitamin Was Found To Be Vitamin C (16.9%) With Vitamin K Being The Least Well-Known (0.4%); While 51.8% Of The Respondents Were Unaware Of The Harmful Effects Of Vitamin Supplements. The Results Also Showed That 84.8% Of The Study Population Had Taken Vitamin Supplements, And 79% Of The Participants Considered That Vitamin Supplements To Be Helpful. Taking Vitamin Supplements As A Compensation For The Deficiencies In The Body Was The Most Frequently Chosen Answer (17.7%) As The Reason For Use Of Vitamin Supplements. On The Other Hand, A Majority Of The Population Was Unaware Of The Indications For Use Of Vitamin Supplements.[6]

A Cross-Sectional Survey Was Carried Out At Jordan University, Amman, Jordan From March To September 2005. The Survey Included 1187 Students Aged 17-28 Years. A Multistage Stratified Sampling Technique Was Used To Recruit The Participants From Different Majors At Jordan University. A Self-Administered Questionnaire Containing Questions On Use Of Vitaminmineral Supplement During The Last Year, Demographic, And Lifestyle Characteristics Was Completed. Results: The Overall Prevalence Of Vitamin-Mineral Supplement Use During The Last Year Reported By Students Was 27.4% (Males 22%, And Females 30.2%). Vitaminmineral Supplement Use Among University Students Was Significantly Associated With Age, Gender, Family Monthly Income, Smoking Status, Physical Activity, Vegetarian Status, And Body Mass Index. The Most Frequently Used Supplements Were Multivitamins (10.4%) And Multivitamins-Multi Minerals (10%). The Most Frequently Given Reason For Supplement Use Was For Treatment. The Main Frequently Reported Source Of Information Was A Physician (45.8%).[7]

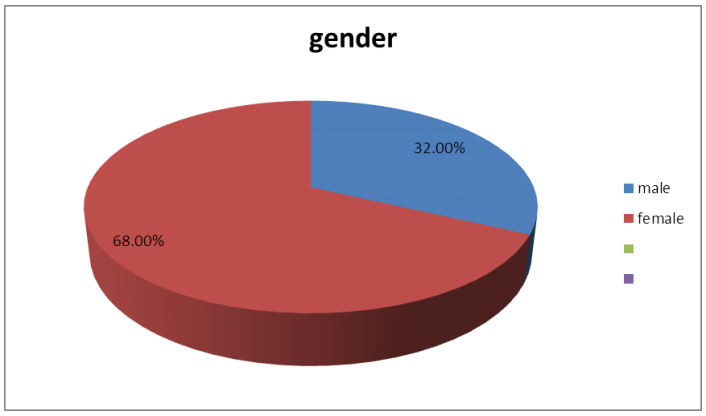
For That, We Concerned To See The Prevalence For Using Multivitamins Supplementation & Awareness Of Their Side Effects Among Saudi People In Comparison To Other Citizens In Different Countries.

METHODS

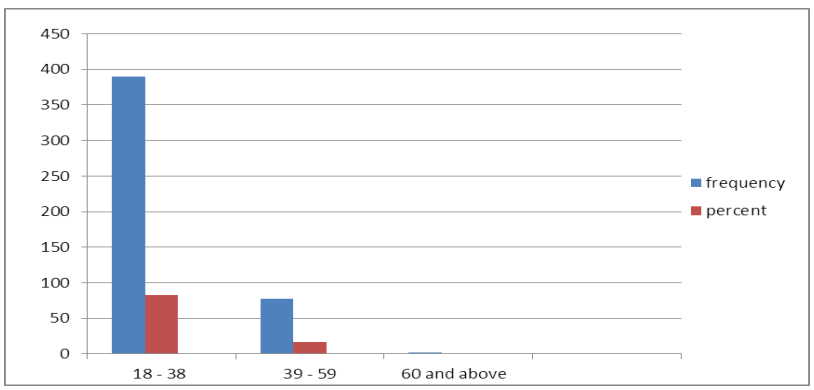
We Will Conduct A Cross Sectional Study Using A Questioner & It Will Be Collected By Study Team From Peoples Living In Kingdom Of Saudi Arabia In 6/3/2017 To 15/8/2017 And Was Approved By The King Faisal University In Alhassa, Kingdom Of Saudi Arabia.

Mainly Young Adult People Including Both Gender Above 18 Years Old Were Included In Study. We Were Exclude People Below 18 Years. Data Will Be Collected By Distributing An Electronic Questionnaire Containing (Sex, Age, Weight, Region, Field Of Employment, Education Level And Questions About Vitamins And Use It). Statistical Analyses Were Performed Using SPSS.

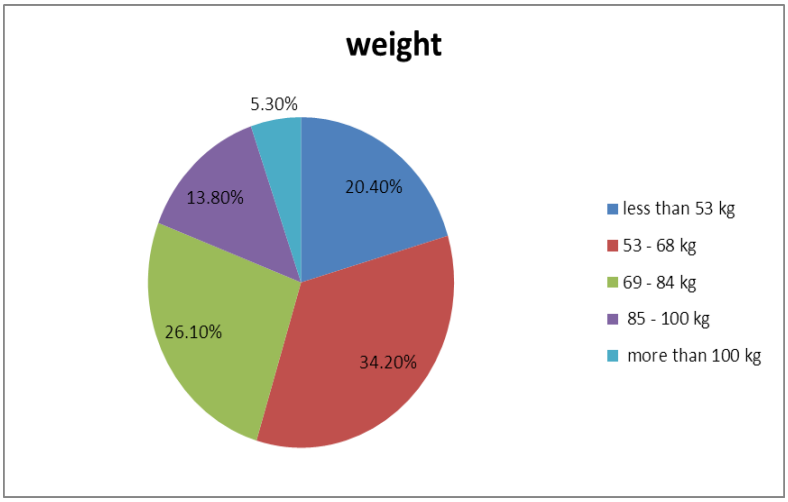
RESULT



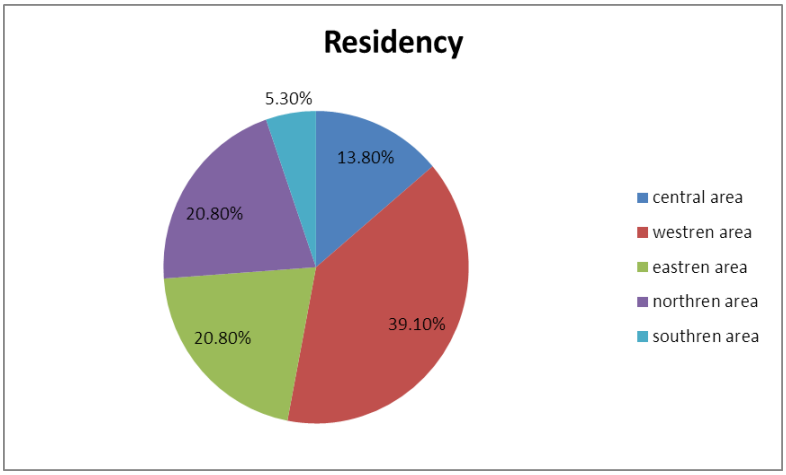
Graph 1: Shows The Gender Distribution Of The Studied Group , 318(67.5%) Were Females And 152 (32.3%) Were Males.



Graph 2: Show The Age Distribution Of The Studied Group.



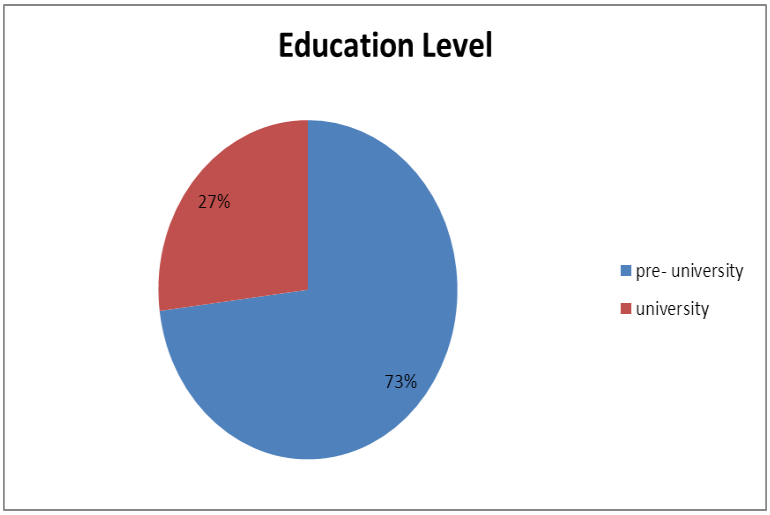
Graph 3: Shows Weight of the Studied Group.



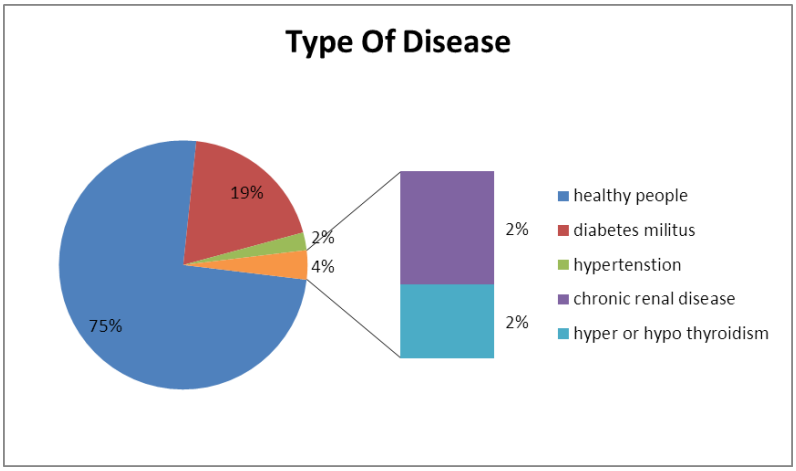
Graph 4: Shows The Residency Of Our Studied Group.

Table 1: Shows The Type Of Job Of Our Studied Group.

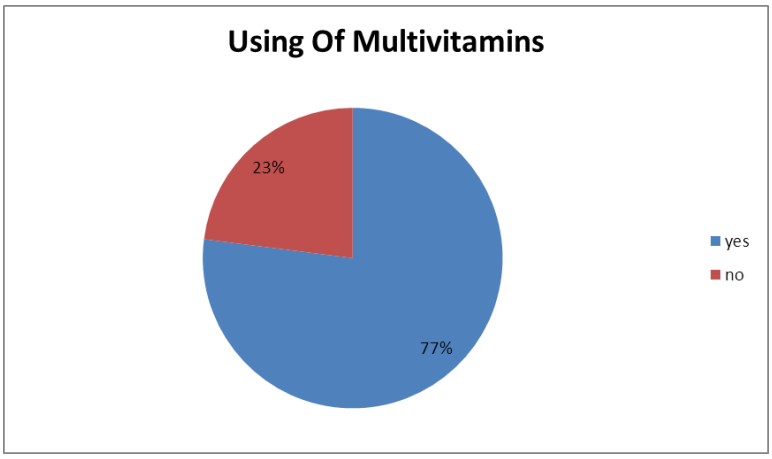
Type Of Job	Frequency	Percent
Education Field	112	23.8
Medical Field	191	40.6
Military Field	12	2.5
Free Work Or Business	128	27.2
Private Field	23	4.9
Un Employer	5	1.1



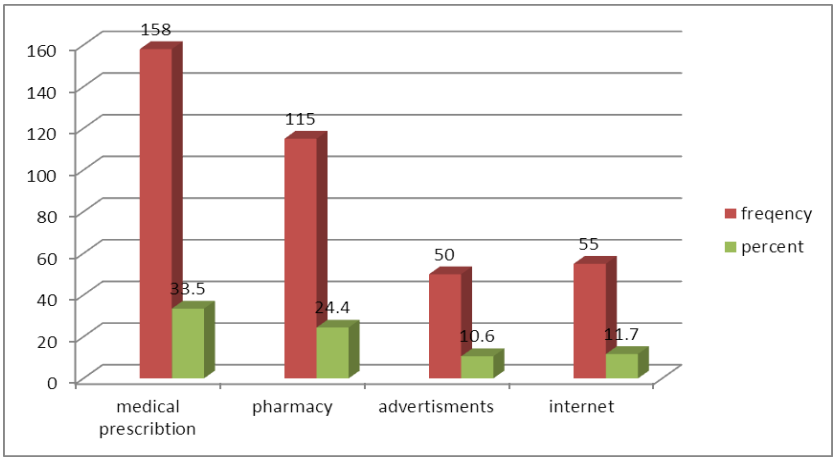
Graph 5: Shows The Education Level Of Studied Group, 343 (72.8%) Were In Pre University Level, 127(27%) Were In University Level.



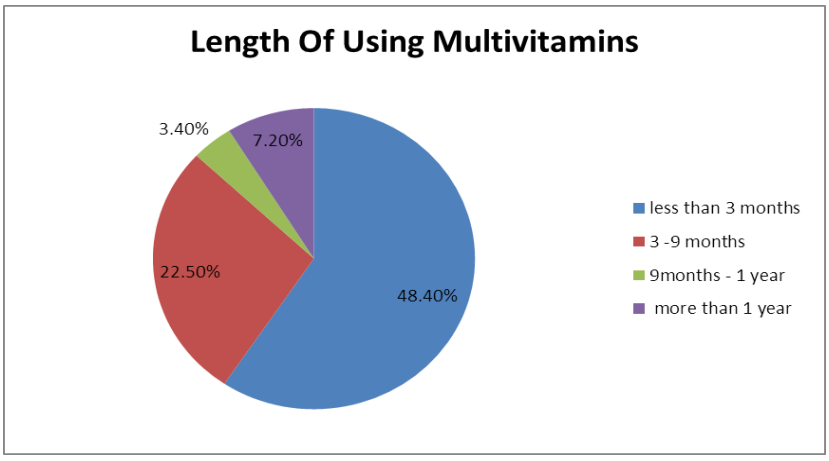
Graph 6: Shows The Types Of Diseases Affect Our Studied Group.



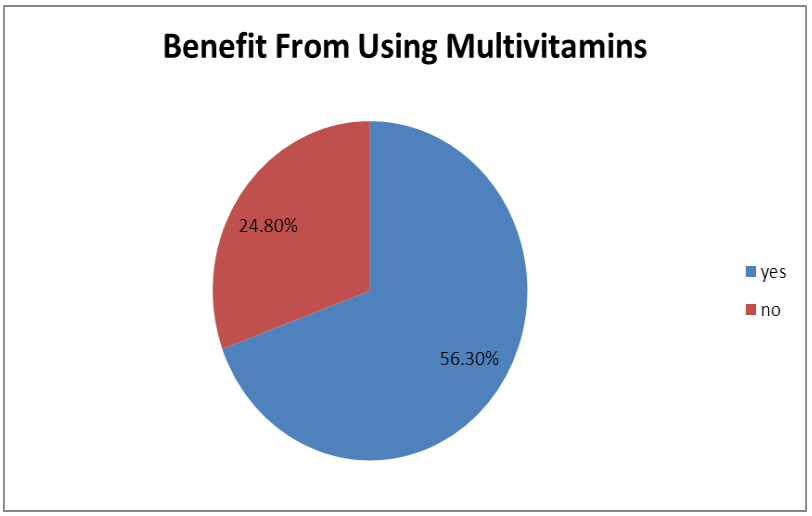
Graph 7: Shows 363(77.1%) Of Our Studied Group Were Used Multivitamins, 103 (21, 9%) We're Not Used Multivitamins Before.



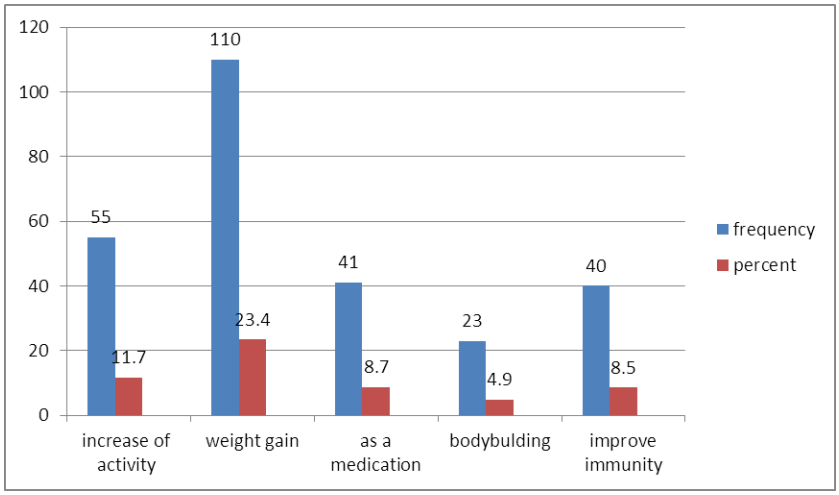
Graph 8: Shows How Our Studied Group Prescribe Their Multivitamins.



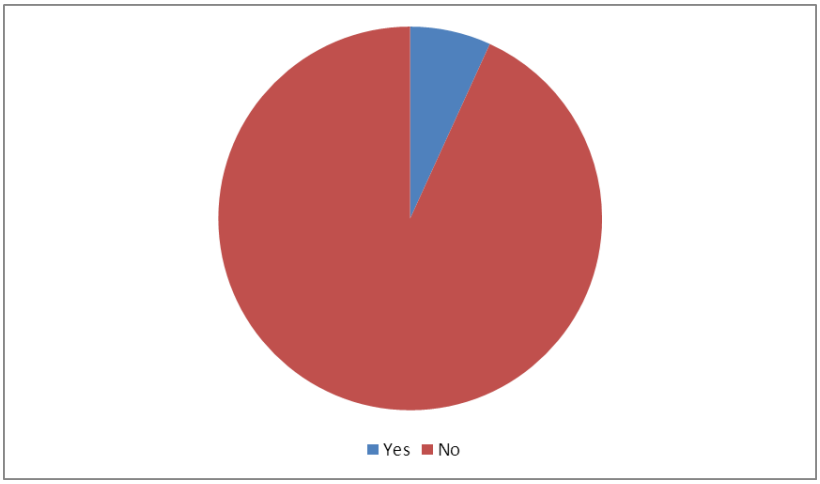
Graph 9: Shows The Length Of Using Of Multivitamins By Our Studied Group.



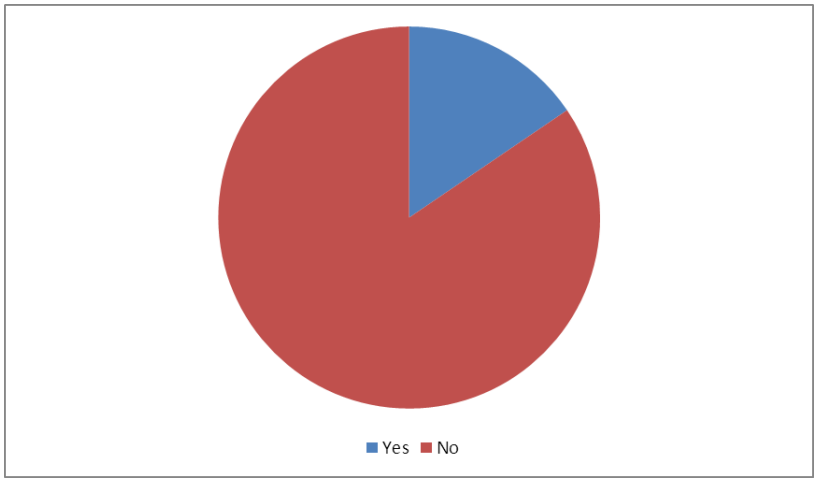
Graph 10: Shows If Our Studied Group Had Been Benefit From Using Multivitamins Or Not.



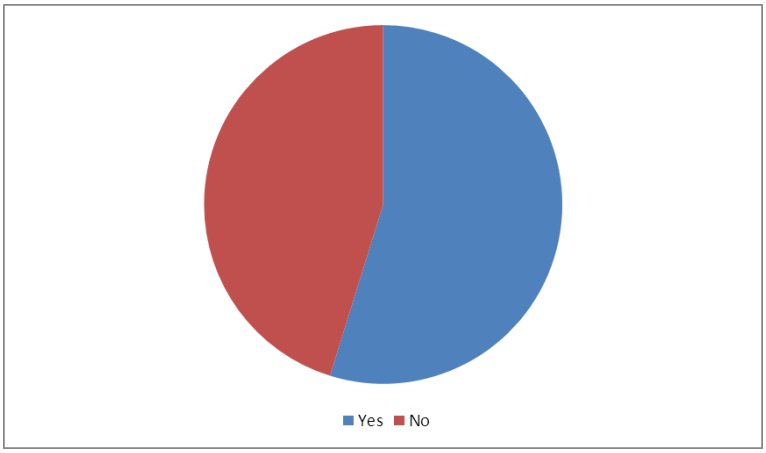
Graph 11: Shows Type of Benefit from Using Multivitamins on Our Studied Group.



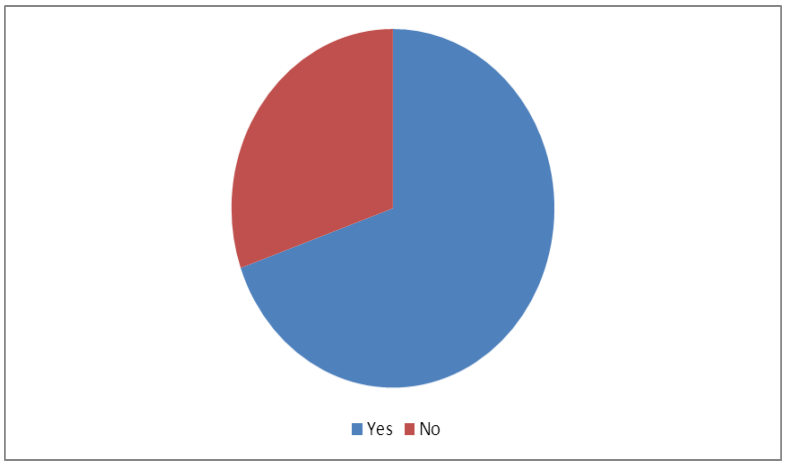
Graph 12: Shows Percent Of The Studied Group Were Having Harm.



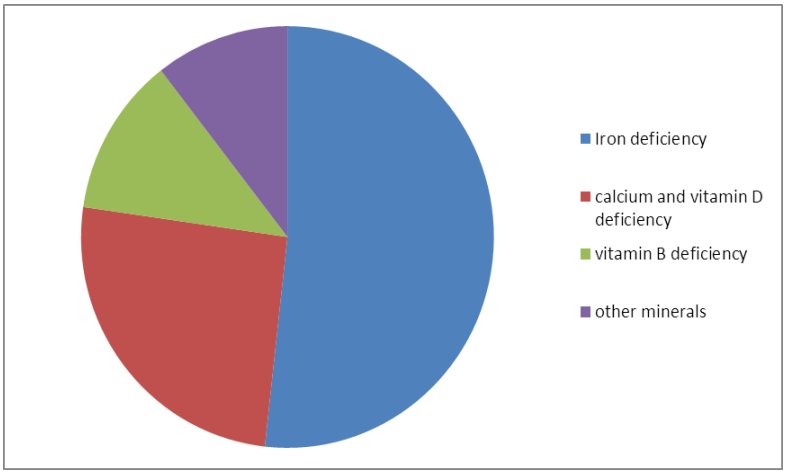
Graph 13: Shows The Symptoms Accompanied Affected Group Such As A Headache, Dizziness, and Nausea Etc.



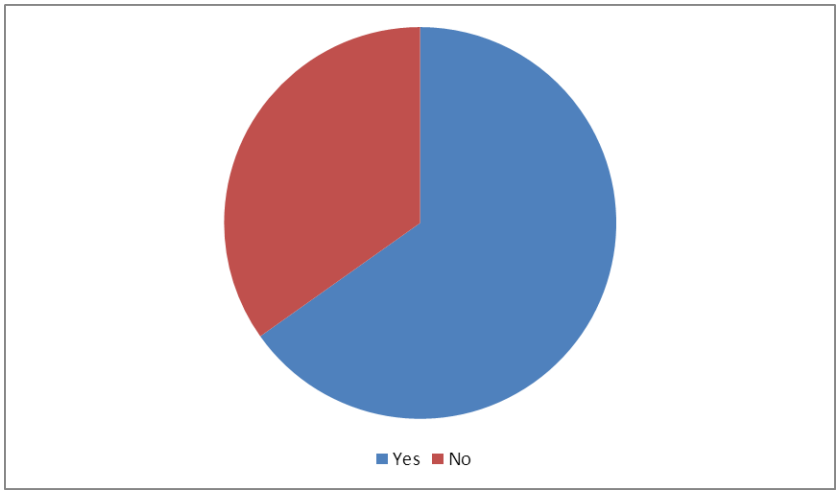
Graph 14: Shows The Proportion Of The Studied Group Conducted An Examination.



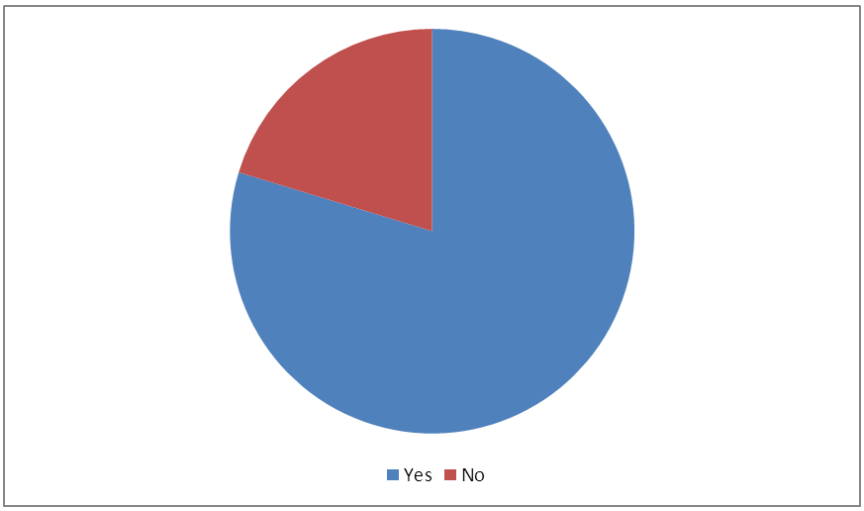
Graph 15: Shows Proportion The Studied Group Had Vitamins Or Minerals Deficiency.



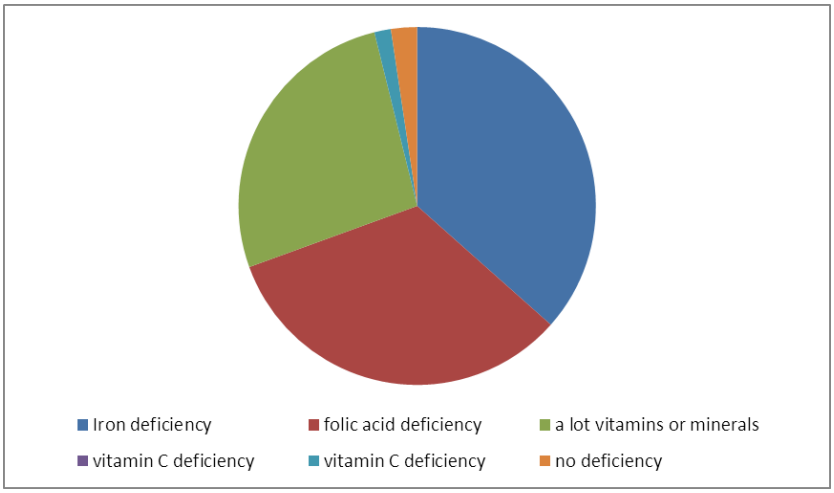
Graph 16: Shows Proportion of Deficiency.



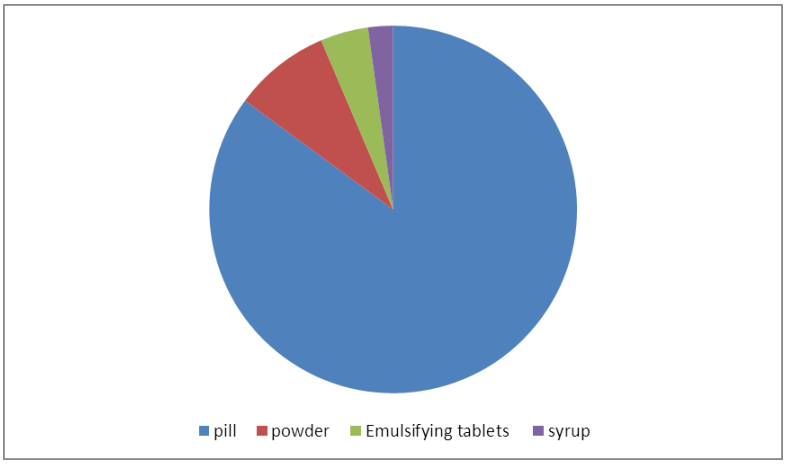
Graph 17: Shows Proportion Of Users the Vitamins As A Prescription By The Doctor.



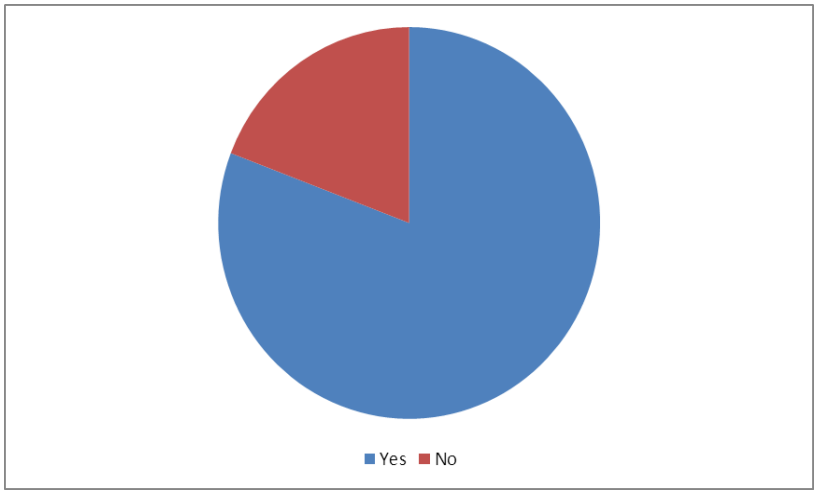
Graph 18: Shows Proportion The Studied Group Had Vitamins Or Minerals Deficiency In Them Family.



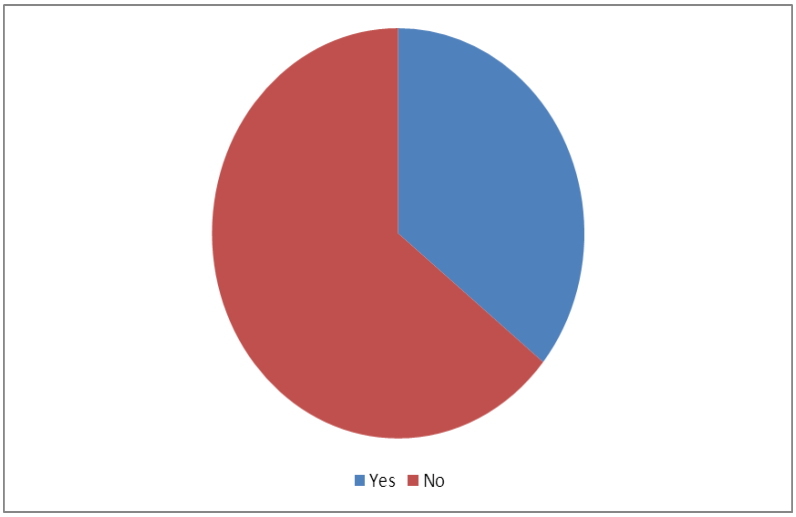
Graph 19: Show The Studied Group Had Vitamins Or Minerals Deficiency In Them Family.



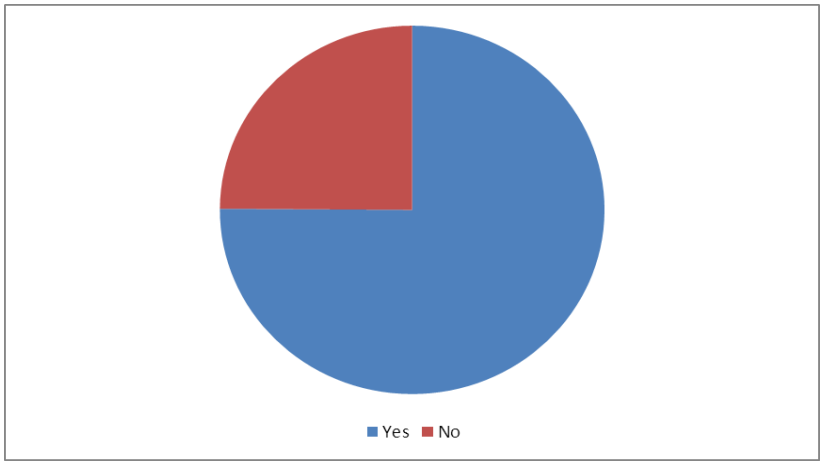
Graph 20: Show Types Of Prefer Use in the Studied Group.



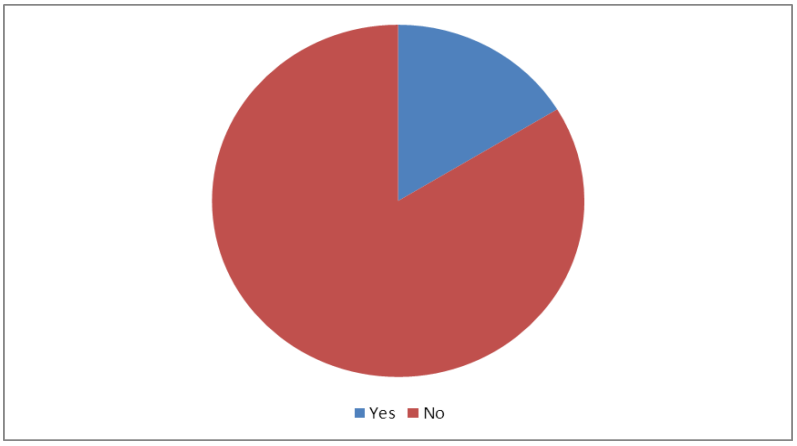
Graph 21: Shows Proportion The Studied Group Had Considers The Vitamins Or Minerals Are Important To Them Body And Strengthen Them Health.



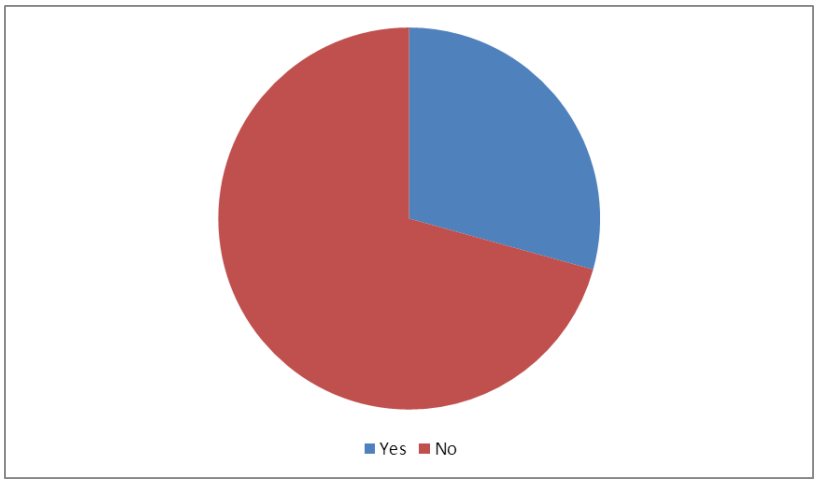
Graph 22: Shows Proportion The Studied Group Believe There Is No Difference Between Taking Vitamins Or Minerals With Or Without Medical Advice.



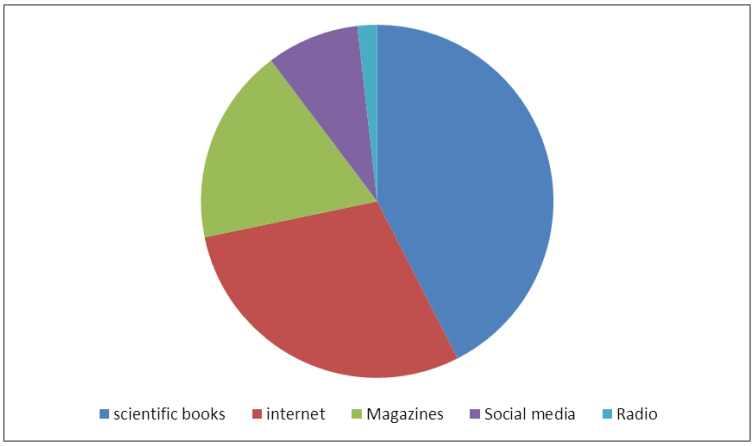
Graph 23: Shows Proportion The Studied Group Believe That Vitamins And Supplements Have Damage Or Side Effects.



Graph 24: Shows Proportion The Studied Group Believe That Vitamins Are Sufficient For The Variety And Quantity Of Food.



Graph 25: Shows Proportion The Studied Group Believe That The Amount Of Vitamins In The Food Is Sufficient For The Daily Body.



Graph 26: Shows Resources of the Studied Group about Vitamins and Supplements.

The Aim of the Study To Assess The Awareness Of Community About Side Effects Of Multivitamins Without Medical Counseling. This Study Was Applied On (471) Persons from Different Areas Of Kingdom Of Saudi Arabia. Most of Them Were Female 318 (67.5 %) And 152 (32.3%) Were Male (Graph 1). The Age of The Studied Group Was Above 18 Years (Distribution Of Age Will Be Shown On The Graph Below (Graph 2)). The Weight of The Studied Group Was 161(34.2%) Between 53-68 Kg, 123 (26.1%) Between 69-84 Kg, 96 (20.4%) Less Than 53 Kg, 65 (13.8%) Between 85-100Kg and 25 (5.3%) More Than 100 Kg (Graph 3).

The Residency Of Studied Group Will Show In The Graph Below (Graph 4). Most of Our Studied Group Were Came From Western Area 184(39.1%), 98 (20.8%) From Eastern Area, 98 (20.8%) From Northern Area, 65(13.8%) From Central Area, 25 (5.3%) From Southern Area .The Jobs of The Studied Group Is Shown In The (Table 1). 191 (40.6%) Were In Medical Field, 128 (27.2%) Were General Work Or Business, 112 (23,8%) Were In Education Field, 23 (4.9%) Work In Private Field, 12 (2.5%) Were In Military Field, 5 (1.1%) Are Employers. Education Level Of The Studied Group Will Be Shown On Graph Below (Graph 5). 343 (72.8%) Were In Pre University Level, 127 (27%) Were In University Level. 354(75.2%) Of Our Studied Group Were Free From Any Disease, 116 (24.6%) Where Have Disease (S). Disease(S) Will Be Shown On The Graph Below (Graph 6). 363 (77.1%) Of Our Studied Group They Use Multivitamins, 103 (21,9%) We're Not Use Multivitamins (Graph 7). The Way Of Prescribe Multivitamins Will Be Shown On The Graph Below (Graph 8), 158 (33.5%) Were Through Medical Prescribtion, 115 (24.4%) Were Prescribed By A Pharmacist, 55 (11.7%) Were Prescribed Through Internet, 50 (10.6%) Were Prescribed Trough Advertisements. 296 (62.8%) Of Our Studied Group Commit The

Prescribed Doses Were Took Their Multivitamins, 104 (22.1%) We're not. The Length Of Use Of Multivitamins Will Be Shown On The Graph Below (Graph 9), 228 (48.4%) Where Use It For Less Than 3 Months, 106 (22.5%) Where Use It For 3 To 9 Months Period, 34 (7.2%) Where Use It For More Than One Year Period, 16 (3.4%) Where Use It Between 9 Months To One Year Period. 265 (56.3%) 0f Our Studied Group Found Benefit From Using Multivitamins, 117 (24.8%) We're Not (Will Be Shown On The Graph Below (Graph 10). The Type Of Benefit (S) From Using Of Multivitamins By Our Studied Group Will Be Shown In The Graph Below (Graph 11) .110 (23.4%) Were Experience An Weight Gain, 55 (11.7%) Were Feel Increase Of Their Activity, 41(8.7%) Where Use Them As A Medication For Their Disease(S), 40 (8.5%) Were Experience An Improvement Of Their Immunity, 23 (4.9%) Where Use It For Body Building.

6.8% (21) Of The Studied Group Were Having Harm From Its Use And 93.2% (287) Of The Studied Group Were Not Having Harm From Its Use (Graph 12). 15.5% Of The Study Group Affected Accompanied By Symptoms Such As Headache, Dizziness, Nausea Etc. (Graph 13). 54.8 % (222) Of The Studied Group Conducted An Examination To Determine The Proportion Of Vitamins Or Minerals And 45.2% (183) Of The Studied Group Did Not Conduct An Examination To Determine The Proportion Of Vitamins Or Minerals (Graph 14). 69.6% (284) Of The Studied Group Had Vitamins Or Minerals Deficiency And 30.4% (124) Of The Studied Group Had Not Vitamins Or Minerals Deficiency (Graph 15). 51.7% (152) The Studied Group Had Iron Deficiency, 25.5% (75) Had Calcium And Vitamin D Deficiency, 12.2% (36) Had Vitamin B Deficiency And 10.5% (31) Had Deficiency In Other Minerals (Graph 16). 56.9% (222) Use The Vitamins As A Prescription By The Doctor And 43.1% (168) With No Prescription (Graph 17).79.7% (329) The Studied Group Had Vitamins Or Minerals Deficiency In Them Family And 20.3% (84) Had No (Graph 18). 34.1% (123) The Studied Group Had Vitamins Or Minerals Deficiency In Them Family Had Iron Deficiency, 30.7% (111) Had Folic Acid Deficiency, 24.9% (90) Had A Lot Vitamins Or Minerals Deficiency, 6.6%(24) Had Vitamin C Deficiency, 1.4% (5) Had Vitamin C Deficiency And 2.2%(8) Had No Deficiency (Graph 19). 85% The Studied Group Prefer To Use As Pill, 8.5% (34) Prefer To Use As A Powder, 4.2%(17) As Emulsifying Tablets And 2.2% (9) Syrup (Graph 20) 80.8%(329) The Studied Group Considers The Vitamins Or Minerals Are Important To Them Body And Strengthen Them Health And 19.2% (78) Not Considers The Vitamins Or Minerals Are Important To Them Body And Strengthen Them Health (Graph 21).

35.8% (146) Of The Studied Group Believe There Is No Difference Between Taking Vitamins Or Minerals With Or Without Medical Advice And 64.2% (262) Believe There Is Difference Between Taking Vitamins Or Minerals With Or Without Medical Advice (Graph 22).

75.1% (308) The Studied Group Had Believe That Vitamins And Supplements Have Damage Or Side Effects And 24.9% (102) The Studied Group Had Believe That Vitamins And Supplements Have No Damage Or Side Effects (Graph 23).

16.3% (67) The Studied Group Had Believe That Vitamins Are Sufficient For The Variety And Quantity Of Food And 83.7% (344) Did Not Believe That (Graph 24).

29.3% (119) The Studied Group Believe That The Amount Of Vitamins In The Food Is Sufficient For The Daily Body And 70.7% (287) The Studied Group Believe That The Amount Of Vitamins In The Food Is Not Sufficient For The Daily Body (Graph 25).

42.5% (170) The Studied Group Read About Vitamins And Supplements From Scientific Books , 29.3% (117) From The Internet , 18% (72) From Magazines , 8.5% (34) From Social Media And 1.8% (7) From Radio (Graph 26).

DISCUSSION

Almost All Of The Study Participants In The Current Study Were Aware Of Vitamin Supplements And More Than 33.5% Had Taken Vitamin Supplements Due To Medical Prescription. This Supports The Basis Of The Study That Vitamin Supplements Use Is Common. In Our Study, Female Participants (68%) Outweighed The Percentage Of Males (32%); This Could Be One Of The Reasons That The Study Found A High Percentage Of Participants Consuming Vitamin Supplements. Other Studies Have Reported That Females Are More Concerned About Their Health Than Their Male Counterparts As Males Tend To Be The Bread Earners In Our Part Of The World, And They Generally Have Poor Health Seeking Behavior.[1]

Our Study Showed Scientific Book, Internet & Magazines To Be The Three Most Common Sources Of Information Regarding Vitamin Supplements. While A Study In Karachi Shows That The Three Most Important Source Are Doctors, Friends/Relatives And Media/Newspaper.[1] Furthermore, The Reasons Reported For Using Vitamin Supplements In

The Study By Leah Et Al[2] Were Similar To The Reasons Reported In The Current Study, (I.E., To Overcome Deficiencies, Improve General Health And To Replenish Energy).

However, 24.9% Of The Study Population Declared That They Were Unaware Of The Harmful Effects Of Vitamin Supplements. Efficacy And Safety Studies Of Dietary Supplements Are Limited And Often Methodologically Poor.[3]

Patients Interviewed In This Study Were Subjected Randomly Through A Questionnaire That Was Distributed In Social Media And In Some General Places; Hence, The Results Cannot Be Generalized To The Whole Population. Nevertheless, This Is The First Such Study To Be Conducted In Saudi Arabia And Can Form The Basis For Further Studies And Awareness Programs Regarding The Safe And Correct Use Of Vitamin Supplements.

This Study Has Several Limitations That Need To Be Addressed. Since The Study Was A Descriptive Cross Sectional Study; The Association Or Correlation Between Variables Could Not Be Studied. Secondly, Most Of The Study Participants Were 73% Pre University Level, So Their Knowledge About Vitamin Supplementation Might Be Different, This May Have Biased The Study Results. Thirdly, The Harmful Effects Of Vitamins Were Not Specifically Raised In The Questionnaire.

CONCLUSION

Finding From This Study Suggests That Multivitamin Use Is Highly Prevalent (77%) And The Majority Of The Participants Were Use It According To Medical Advice. In Light Of This, There Is A Less Percentage Of People That Experienced A Side Effect From Using That Supplementations.

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