Level of awarrence about importance of omega 3 and its effectiveness on eye in Taif, Saudi Arabia

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Abstract— Omega 3 is essential fatty acid cannot be created in the body with an important of health benefits as well as play a role in anti-inflammatory processes. They are found in many parts of the body including cell membranes. **Methodology:** A cross-sectional study in a period From May to August 2017. 300 people over 18 years in Taif city, Kingdom of Saudi Arabia agreed to participate in the study and filled questionnaires. Because Lifestyle diseases arising from nutritional deficiencies are taking alarming in Saudi people in the consumption of junk food. **Results:** One hundred-eighty four participants (61.3%) had never heard about Omega 3 .A Greater proportion of men than women had not heard about omega 3 (60.1%). A forty-four participants (14.7%) included omega 3 rich foods such as oily fish in their meals. Two hundred and ninety-one respondents (97%) were unaware of the relation of dryness ayes and heart disease in omega 3 deficiency and (53.7%) of them have dryness eyes and (56.3 %) of participants use artificial tears. Ten percent of them take fish oil as supplements. A ninety-eight percent of them did not do a blood test for omega 3 deficiency. **Conclusion:** This study suggests the need for continuing education campaigns to improve knowledge of the importance of omega 3 on human health because (71.7 %) of participants answered no adequate programs about omega3 and (93.3 %) of them unaware that omega 3 not made in the human body.

Index Terms— omega 3 deficiency – dryness eyes .

1 INTRODUCTION

Essential fatty acid, including Eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA) and alpha-linolenic acid (ALA), are dietary fats cannot be created in the body with an important of health benefits as well as play a role in anti-inflammatory processes. They are found in many parts of the body including cell membranes. DHA is the dominant LC omega-3 PUFA in the brain and has been shown to accumulate in areas of the brain associated with learning and memory, such as the cerebral cortex and hippocampus. In addition, DHA increased cerebral blood flow during cognitive tasks. Seafood sources such as fish and fish-oil supplements have 2 biologically important dietary omega-3 fatty acids, EPA and DHA have beneficial in the prevention or treatment of many diseases and low intake of dietary EPA and DHA are associated with increased inflammatory processes as well as cardiovascular diseases [1-2] .

Topical application of a particular fatty acid in treating the signs of dry eye syndrome and led significant improvement in ocular irritation symptoms associated with dry eye include ocular burning, foreign body sensation, stinging sensation, pain, photophobia and blurred vision that reported by patients who attend ophthalmologic clinics [3]. Artificial tear supplementation is the most common therapy for dry eye. However, artificial tears provide only temporary and incomplete symptomatic relief [4]. Fish consumption and fish oil have been linked to CHD risk in European, American, and Japanese populations [5].

Lifestyle diseases arising from nutritional deficiencies are taking alarming in Saudi people in the consumption of junk food [6].
Eye Research Institute showed for the first time the benefit of topical application of a particular fatty acid in treating of dry eye. Topical alpha-linolenic acid (ALA) treatment has been found to decrease signs of dry eye and inflammatory changes significantly at both cellular and molecular level [7].
Study in Australia in 2014 showed, that DHA supplementation improved memory in healthy young adults whose habitual diet was low in DHA [8].

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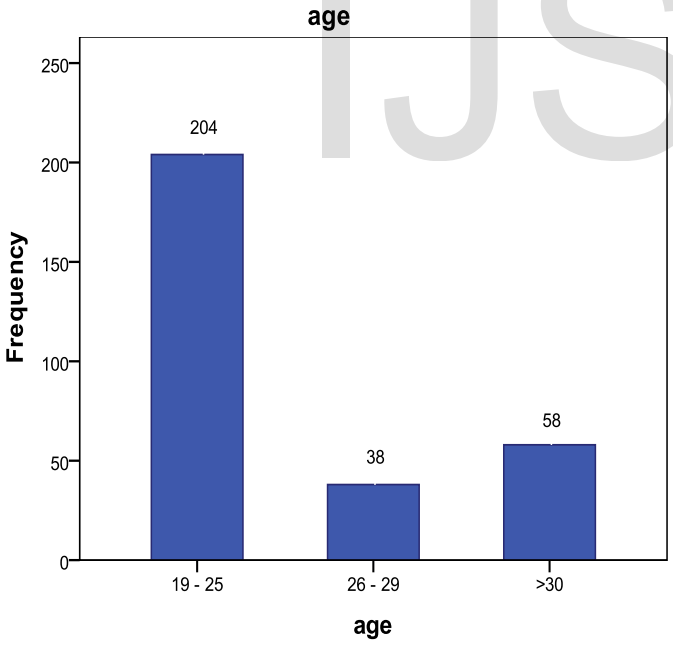
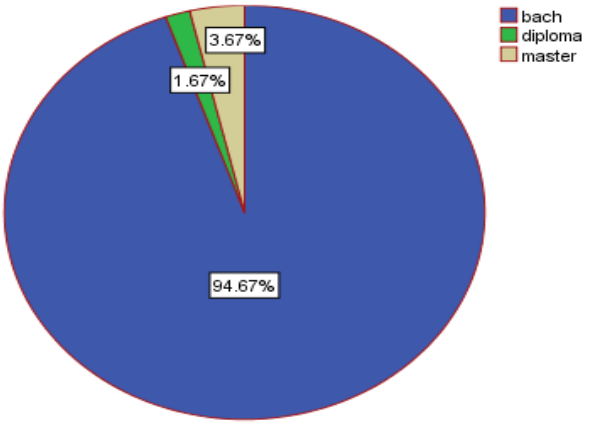
2 Methodology :

Study design: A cross-sectional questionnaire-based survey among a general population. From May to August 2017 in Taif city . Sampling and population: 300 people over 18 years in Taif University main campus.Tools and data collection procedure:Enrolled male and females will be interviewed using a structured questionnaire. Statistical design: IBM SPSS statistics (v. 19) analysis package will be used to analyze the data. The data will be presented as tables and graphs.Administrative consideration: Research proposal and a request letter are submitted for dean college of medicine and vice dean scientific research for approval before conduction of the study.

3 Results :

Three hundred Saudi people in Taif city agreed to participate in the study and filled questionnaires.





Most participants (94.8%) in bachelor degree were aged (ranged between 19 and 25 years) (86 %).

Are there adequate programs to raise awareness about omega 3		Frequency	Percent	Cumulative Percent
Valid	Yes	1	.3	.3
	No	215	71.7	72.0
	Yes , but not enough	84	28.0	100.0
	Total	300	100.0	

Is omega3 can made in human body		Frequency	Percent	Cumulative Percent
Valid	Yes	1	.3	.3
	No	19	6.3	6.7
	I don't know	280	93.3	100.0
	Total	300	100.0	

(71.7 %) of participants answered no adequate programs about omega3 and (93.3 %) of them unaware that omega 3 not made in the human body.

Are there relation between omega 3 deficiency an dryness eye heart disease		Frequency	Percent	Cumulative Percent
Valid	1	9	3.0	3.0
	3	291	97.0	100.0
	Total	300	100.0	

Two hundred and ninety-one respondents (97%) were unaware of the relation of dryness ayes and heart disease in omega 3 deficiency and (53.7%) of them have dryness eyes and (56.3 %) of participants use artificial tears.

Do you have dryness eye		Frequency	Percent	Cumulative Percent
Valid	Yes	161	53.7	53.7
	No	139	46.3	100.0
	Total	300	100.0	

Do you use artificial tears		Frequency	Percent	Cumulative Percent
Valid	1	169	56.3	56.3
	2	131	43.7	100.0
	Total	300	100.0	

Do you take omega3 as supplements		Frequency	Percent	Cumulative Percent
Valid	Yes	30	10.0	10.0
	No	270	90.0	100.0
	Total	300	100.0	

Ten percent of them take fish oil as supplements. A ninety-eight percent of them did not do a blood test for omega 3 deficiency.

Did you do blood test for omega 3		Frequency	Percent	Cumulative Percent
Valid	1	6	2.0	2.0
	2	294	98.0	100.0
	Total	300	100.0	

Knowledge about omega 3:

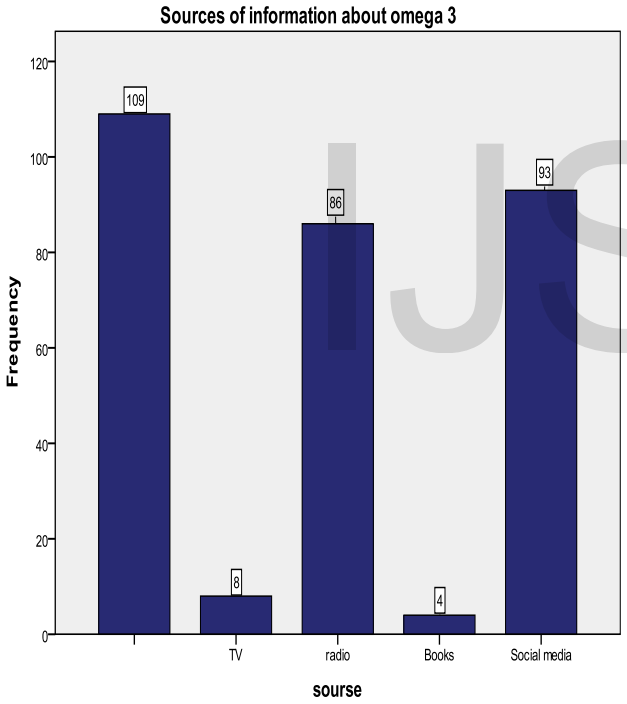
One hundred-eighty four participants (61.3%) had never heard about Omega 3 .A Greater proportion of men than women had not heard about omega 3 (60.1%).

Did you hear about omega 3	Frequency	Percent	Cumulative Percent
Valid	1	.3	.3
Yes	115	38.3	38.7
No	184	61.3	100.0
Total	300	100.0	

Diet:A forty-four participants (14.7%) included omega 3 rich foods such as oily fishes in their meals whereas (885.3%) of them did not include any of these foods.

Do you include Omega 3 rich foods such as oily fish; sardine salmon your meal?		Frequency	Percent	Cumulative Percent
Valid	Yes	44	14.7	14.7
	No	256	85.3	100.0
	Total	300	100.0	

Sources of information : One hundred and nine participants (63.33%) responded to the question regarding how they heard about omega 3.The results are presented in this Figure. social media and radio were the most popular source cited by 109 participants and followed by TV.



4 Discussion: Omega 3 is essential fatty acid cannot be created in the body with an important of health benefits as well as play a role in anti-inflammatory processes[1]. This study is the first to estimate knowledge omega 3 in Taif city, Kingdom of Saudi Arabia. The present study demonstrates surprising results and raises issues about the high number of participants (61.3%) had never heard about Omega 3 .A Greater proportion of men than women had not heard about omega 3 (60.1%) and (97%) were unaware of the relation of dryness ayes and heart disease in omega 3 deficiency and (53.7%) of them have dryness eyes and (56.3 %) of participants use artificial tears. Artificial tear supplementation is the most common therapy for dry eye. However, artificial tears provide only temporary and incomplete symptomatic relief [4]. A ninety-eight percent of them did not do a blood test for omega 3 deficiency.

5 Conclusions :

This study suggests the need for continuing education campaigns to improve knowledge of the importance of omega 3 on human health because (71.7 %) of participants answered no adequate programs about omega3 and (93.3 %) of them unaware that omega 3 not made in the human body.

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