

Assessment of Nutritional Status, knowledge and practices of women attend fitness centers (GYM) at AL-Klakla Area, December, 2016

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ABSTRACT

The study objectives of this study were to assess the nutritional status, knowledge, awareness, and practices of women attending fitness (gym) centers at Alklakla locality, the sample included hundred (100) women had been chosen randomly from five different centers at ALklakla. Questionnaire was used as tool to collect the data which included: socio demographic characteristics, sport information, medical history as well as nutritional and anthropometrics data. Data entry and analysis done through SPSS program by frequencies and cross tabulation. The results of the study showed that: The age of sample ranged from 20 to 35 years old. 46% of the sample belongs to the age group 20-24 years old. 50% were students at universities. Anthropometric measurements showed that: 70% were overweight, 48% their waist/hip ratio more than 85%. 53% have joined gym to reduce their weight. 63% of women who attend gym knew it from their friends. Most of the women studied (63%) were not satisfied with their body shapes and the majority (78%) reported that exercising positively change their mood. Half of the women studied eat usually less than three meals daily (51%). 48% regularly take fast food three times or more per week, 46% of them used frying as the most common method of cooking their food. The study found that most of the women studied followed tough diet (low in energy, protein and fats); they depend on vegetables, soups, fruits and excluding meals to reduce calories (there exists an inadequacy in dietary intake of both macro and micronutrients). There was also lack knowledge about nutrition, healthy food choices and the component of a well-balanced diet. Therefore, this study recommends and stresses on the importance of the presence of dietitians at all gym centers as to help in improving these women nutrition awareness and the healthiest ways to lose weight.

GYM: Means gymnasium, facility equipped for sports or physical training

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BACKGROUND

Obesity can be defined as a disease in which excess body fat has accumulated to an extent that health is adversely affected.

BMI (body mass index) is a measurement which is widely used to estimate the prevalence of overweight and obesity within a population, and it is calculated as weight (kg)/height squared (m²). Cut off points of 25kg/ m² and 30kg/m² are recognized worldwide as definitions of overweight and obesity, respectively (Swathi Priya, Annadurai, 2015).

According to the World Health Organization (WHO), there will be about 2.3 billion overweight people aged 15 years and above and over 700 million obese people worldwide in 2015. Overweight and obesity are the fifth leading risk of deaths, resulting in around 2.8 million deaths of adults globally every year. In addition, 44% of the diabetes burden, 23% of the ischemic heart disease, and between 7% and 41% of certain cancer burdens are attributable to overweight or obesity (Jitendra and Ranjan, 2014).

Excluding poorer countries in the Region (Afghanistan, Djibouti, Mauritania, Somalia, Sudan and Yemen) the prevalence of overweight and obesity among schoolchildren aged 6–10 years was 12%–25%, while among adolescents (11–18 years) it was 15%–45%, using BMI as a criterion for obesity. Among adults (≥ 19 years) the prevalence of obesity varied widely from country to country. The proportion of overweight and obesity among men ranged from 30% to 60%, while among women it ranged from 35% to 75%. Some of the studies reviewed were not done on a national basis; they do, however, provide useful data on the trend for obesity. In a review of 39 surveys from 28 developing countries to determine obesity among women, Martorell and et al., (2004) reported that women in Egypt and Turkey have the highest proportion

of overweight (31.7% for both), as well as the highest proportion of obesity (20.1% for Egypt and 18.6% for Turkey).

Problems related to obesity in women include: 1) Menstrual disorders 2) Decreased fertility associated with obesity in the adolescent and reproductive Periods. 3) Increased perinatal abnormalities in obese pregnant women. 4) Increased incidence of cardiovascular diseases, cancer of the corpus uteri, and 5) Breast cancer in obese postmenopausal women.

For centuries, obese women in Sudan were appreciated and admired, when the community was in favor of the obese women. Many Sudanese today prefer to enjoy the graceful and strength. This was accompanied by a huge spread of sports' clubs for women to achieve the dreams and wishes of the Sudanese women and girls. All classes are relatively full; these clubs attract mostly the unmarried young ladies of all ages. Obesity is a big problem ever-increasing in Sudan, also represents health concerns and one of the motives behind the Sudanese women working for the loss of body weight.

In recent years, new word "Style" trading within the Dictionary of Sudanese vocabulary, referring to the slim and graceful woman. Thus, fitness clubs or gyms became common and more women were joining them as to be a "Style women". Most fitness centers have facilities for aerobic exercising in addition to big dancing halls where a group of girls and women exercise by dancing with different types of music. Scientific studies have shown that dancing has the same effect as sport. Thus, in addition to exercising (good levels of physical activities) it clarifies the mind; grant its practitioners a better chance to think positively and properly and a method of entertainment.

Importance of the research:

In Sudan, overweight has become a problem that threatens the lives of many, as it is a strong risk factor for many chronic diseases such as heart disease, diabetes and hypertension. Many people try to lose weight through so many different ways, however many of them fail to lose weight and after a while return to their previous weights and the reasons for this are failing to follow the suitable healthy diet with the suitable sports until the recommended weight is achieved and to maintain this weight continuation of certain diets and physical activities are a must. In Sudan studies concerning gym centers and their attendees were very rare if any. Therefore, this study was attempting to describe the characteristics of women attending gym centers including their knowledge and practices regarding their weights. Such information will help in planning interventions to improve the services offered by the gym to their attendees and consequently achieving healthier bodies.

Objectives of the research:

General objective

The purpose of this study was to assess the nutritional status and evaluate the nutritional knowledge and practices of women attending AL-kalakla gym centers.

Specific objectives:

- To describe the socio-demographic characteristics of women attending Al-Kalakla gym centers.
- To assess the nutritional status of women attending Al-Kalakla gym centers (anthropometrics and food intake).
- To evaluate the knowledge and practices of women attending Al-Kalakla gym centers towards their body weights and the gym center.

MATERIALS AND METHODS

Type of study and site:

This is a descriptive purposive cluster sample study designed to assess the nutritional status, knowledge and practices of women attending 5 sport centers (gym) at Alklakla locality in Khartoum State.

Study setting and population:

One hundred women were randomly selected purposively from five different fitness centers (gyms) at Alklakla locality. The target population was females attending these sport centers at Alklakla locality. Inclusion criteria were: any women attending the centers selected and during the period of data gathering who were willing to participate in this study.

Tools of data collection:

By Interview guided by questionnaires which comprised the following points:

Socio demographic data:

Consisted of Age, social status, education level, occupation, type of house and type of drainage system at the house.

Medical history:

Yes or No questions put in a list consisted of some common chronic diseases (eg diabetes, hypertension....etc)

Sport information:

Consisted of practice and knowledge questions.

Nutritional awareness:

Consisted of open questions about obesity and indeed practices.

Nutritional practices:

Consisted of regular intake of meals, cooking methodology, snacks and herbals intake.

Nutritional status:

Was assessed by measuring participants anthropometrics, including: Weight, height, BMI, waist to hip Ratio and dietary intake (24 hours recall), then the energy consumption was calculated.

*From 24 hours recall researcher made check list consisted the most important foods in (food

pyramid) and (my plate) design to be more specific.

Duration of data collection:

From October 2016 to November 2016.

Data analysis:

Data was entered using SPSS program. Descriptive analysis was carried out using percentages in the form of tables and figures.

RESULTS**4.1. Table (1): Socioeconomic Status of women attending Alkalakla GYM centers**

Age	Percentage
20-24	46%
25-29	34%
30-34	13%
35-40	7%
Total	100%
Social status	
Single	56%
Married	38%
Divorced	5%
Widowed	1%
Total	100%
Level of education	
Primary level	7%
Secondary level	19%

University	63%
Post university	11%
Total	100%
Occupation	
Unemployed	26%
Employed	21%
Student	50%
Free lancers	3%
Total	100%
Type of house	
Rented	19%
Owned	75%
Governmental	6%
Total	100%
Type of drainage system at the house	
Pit latrines	7%
Advanced drainage system	93%
Total	100%

Table (1) shows that the ages of the majority (80%) of the women studied were between 20 and 29 years old. Most of them were dingles (56%). Half of these women were university students and 24% either completed university or above. 21% were unemployed. 75% live in their own houses or their parents owned houses and the majority (93%) have advanced water drainage systems at their homes.

Table(2): Medical Status of women attending Alkalakla GYM centers (N=100):

Do You Suffer from Hypertension?	Percentage
Yes	8%
No	92%
Total	100%
Do You Suffer from Diabetes mellitus?	
Yes	2%
No	98%
Total	100%
Do You Suffer from any other Heart Disease?	
Yes	2%
No	98%
Total	100%
Do You Suffer from Asthma?	
Yes	13%
No	87%
Total	100%
Do You Suffer from Arthritis?	
Yes	32%
No	68%
Total	100%
Do You Suffer from Obesity?	
Yes	27%
No	73%
Total	100%
Do You Suffer from Other chronic Disease?	
Yes	12%
No	88%

Total	100%
Are you satisfied with your medical status?	
Yes	37%
No	55%
I don't Know	8%

Table (2) shows that 92% of the women studied were not suffering from Hypertension. 98% were not diabetic. While up to 32% suffer from arthritis, 13% suffer from asthma and 27% 23% suffer from their high weights (obesity). 37% reported that they were satisfied with their medical status.

Table (3): Information about joining the GYM

What is the reason you join this gym?	Percentage
Increased body weight	11%
Decreased body weight	53%
More beautiful shape	11%
More healthy body	14%
Doctor's advice	6%
Friend advice	5%
Total	100%
How do you know this gym?	
By accident	20%
From my friend	63%
Location of gym	17%
Total	100%
For how long you were joining this gym?	

For a few days	55%
For months	33%
For years	12%
Total	100%
For how long you intend to continue?	
For days	6%
For months	41%
I don't know	53%
Total	100%
Is this your first time with this gym?	
Yes	70%
No	30%
Total	100%
Do you have experiences with other gyms?	
Yes	35%
No	65%
Total	100%
Are you satisfied with this gym?	
Yes	97%
No	3%
Total	100%

Why you are satisfied?	
Companionship and encouragement	45%
The gym facilities	19%
Good deal	33%
Not satisfied	3%
Total	100%
Are you satisfied with your body shape?	
Yes	31%
No	63%
I hadn't think about that	6%
Total	100%

Table (3) showed that. 53% of the women participated in this study joined the gym to lose weight, whereas 5% joined due to their friend's advice. The majority (63%) knew the gym through their friends. 55% have just started going to the gym (ie. few days ago). While 43% were joining the gym for more than a month. 53% of the women didn't know for how long they will continue joining the gym. Most of them (70%) said that this was their first trial with this gym. And up to (65%) of sample did not have any experiences with any other gyms. Most of women under study (97%) were satisfied with gyms. 45% were satisfied because of the good companionship and encouragement. Most of the women studied (63%) were not satisfied with their body shapes.

Table (4) Practicing of sports by women attending Alkalakla GYM centers (N=100):

Do like practicing of sports?	Percentage
Yes	96%
No	4%
Total	100%
Do you practice any other type of sport?	
Yes	31%
No	63%

Sometimes	6%
Total	100%
What are the other sports do you practice?	
I didn't practice	63%
Walking	24%
Swimming	2%
Other	11%
Total	100%
How many times do you exercise at the gym weekly?	
Once	5%
Three times	74%
More than three	21%
Total	100%
For how long do you exercise?	
Less than hour	3%
An hour	30%
More than one hour	67%
Total	100%
Which type of sports do you practice in the gym?	
Zumba	50%
Aerobic	13%
Zumba and Aerobic	37%
Total	100%
How do feel when practicing these types of sports?	
With comfortable	68%
With tired	10%
With activity	22%
Total	100%

Does practicing of sports change you mood?	
Yes	78%
No	22%
Total	100%
Are there disadvantages of sport practicing?	
Yes	24%
No	76%
Total	100%
What are the disadvantages of sport?	
There are no disadvantages	76%
Caused fatigue	16%
Caused diseases	2%
Require continuity	6%
Total	100%
What do you prefer; individual or team sport?	
Team sport	91%
Individual sport	9%
Total	100%
Have you benefited from exercising at this gym?	
Yes	95%
No	5%
Total	100%
How do you benefited from exercise?	
I didn't get benefit	5%
My weight had been decrease	53%
My weight had been increase	
Fitness	37%
Total	100%

As shown in table 6, 96% of them like sport practicing. Most of the population studied women (63%) didn't practice any other type of sports. Among those who practice some other sports, two thirds practice walking. 74% of all women studied usually exercise at the gym three times/week and for the majority they exercise for more than one hour (67%). 50% of them practice zumba dancing only and 37% practice zumba dancing and aerobics too. Most of these women (68%) feel comfortable when they exercise and the majority (78%) reported that exercising positively change their mood. 67% of them thought that sport hasn't any disadvantage, while 16% thought that sport make them fatigue. The majority of the women studied (91%) preferred group exercising. 95% were benefiting from exercising at the gym especially in weight reduction (53%).

Table (5): Nutritional practices of women attending Alkalakla GYM centers (N=100):

How many meals do you usually eat during the day?	Percentage
Less than three	51%
Three	40%
More than three	9%
Total	100
Do you eat anything between meals?	
Yes	53%
No	47%
Total	100%
Do you eat breakfast regularly?	
Yes	39%
No	60%
I don't eat it at all	1%
Total	100%
Do you eat lunch regularly?	
Yes	32%
No	66%
I don't eat it at all	2%
Total	100%
Do you eat dinner regularly?	

Yes	21%
No	54%
I don't eat it at all	25%
Total	100%
What is most frequent method used in the preparation of your food?	
Roasting	22%
Boiling	23%
Reddening	46%
Others	9%
Total	100%
Did you take any type of herbals to change your weight?	
Yes	33%
No	67%
Total	100%
Which type of herbals have you taken?	
Cinnamon	18%
Ginger	9%
Others	6%
I didn't take	67%
Total	100%

Table (5) showed that almost half of the women studied eat usually less than three meals daily (51%). 53% regularly eat snacks between meals. 60% of them reported that they do not eat their breakfast regularly. While 66% of them do eat their lunch regularly and up 25% do not eat dinner at all. 46% of them used reddening as the most method of cooking their food. 33% of the women studied take herbal medicines to change their weight, and the most commonly used herb was cinnamon (18%).

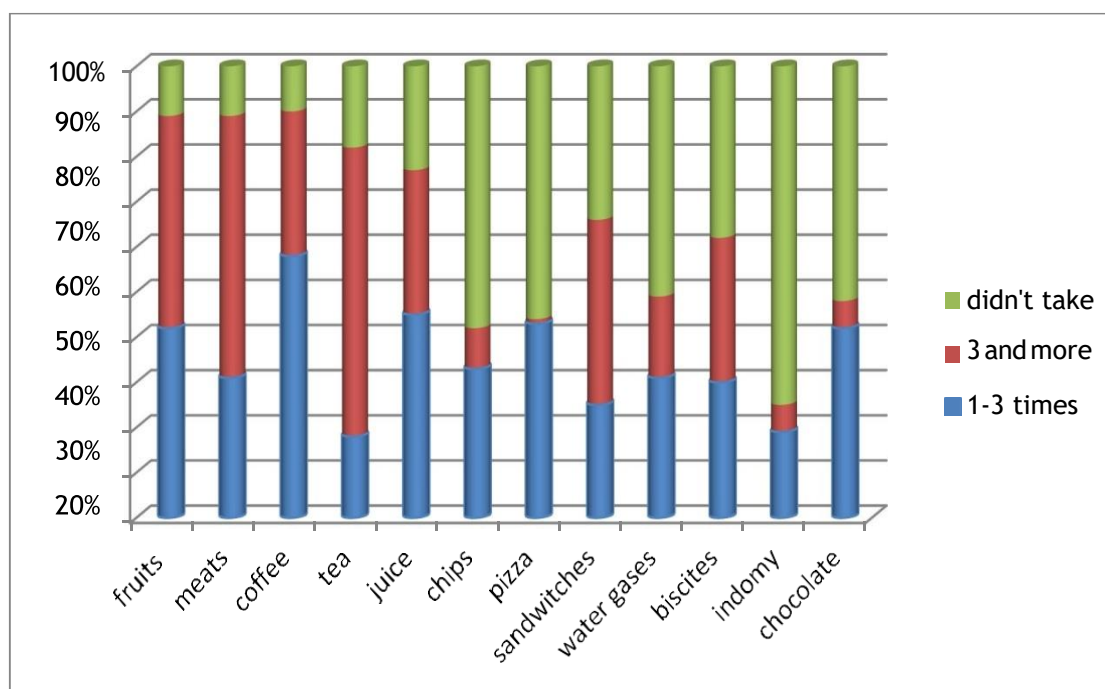


Figure (1): How frequently do you usually eat the following types of foods?

Figure (4.1) (consume this items /week) shown that: (55%) ,Three time or more they were taken fruits, (54%) three times or more they were taken meats, (55%) were taken coffee 1-3 times, (45%) were taken juice 3times or more, (60%) were didn't take chips at all, (59%) were didn't take pizza at all,(48%) were take sandwiches 3times or more, (55%) were didn't take water gases at all, (40%) were didn't take biscuits at all, (78%) were didn't take indomy at all, (55%) were didn't take chocolate at all

Table (6): Nutritional Status of women attending Alkalakla GYM centers (N=100):

Height(cm)	Percentage
150-154	13%
155-159	22%
160-164	42%
165-169	14%
170-175	9%
Total	100%
Weight	

40-59	19%
60-79	25%
80-99	45%
100 and more	11%
Total	100%
BMI	
Underweight	7%
Normal	23%
Overweight	70%
Total	100%
Buttocks perimeter	
Less than 90	28%
91-99	20%
100-109	30%
110-119	22%
Total	100%
Waistline	
70-79	29%
80-89	22%
90-99	41%
100 and more	8%

Total	100%
Waist/ hip ratio	
75-80	12%
81-86	40%
More than 86	48%
Total	100%
Calories intake through the previous 24 hours	
Less than1800	68%
1800-2400	29%
More than 2400	3%
Total	100%
Perceived self-body weight	
Skinny	11%
Fat	77%
Moderate	12%
Total	100%

Table (6) showed that: the majority (65%) of the women studied had a heights equal or more than 160 cm. 22% have heights between 155 and 159cm and only 13% their heights were between 150 and 155cm. Most of these women were overweight (70%), 23% have normal weights and 7% were underweight. A very low percentage(12%) among these women have waists to hip ratios equal or less than 80%. Calories taken during the last 24 hours were found to be less than 1800 Kcal among 68% and between 1800 to2400 among 29%. 77% of the women studied perceive themselves as fat.

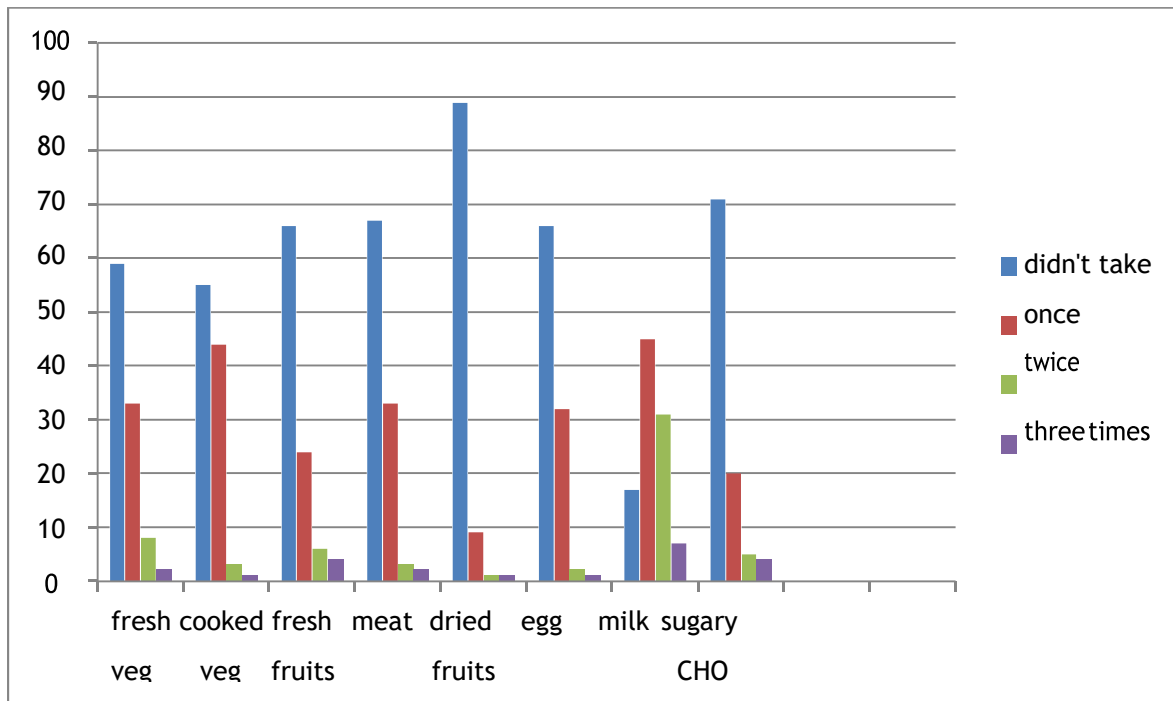


Figure (2): 24 hours recall check list:

Figure (2): showed that: (59%) were didn't take fresh vegetable at that day, (55%) were didn't take cooked vegetable, (65%) were didn't take fresh fruits, (66%) were didn't take meet, (85%) were didn't take dried fruits, (65%) were didn't take egg, (45%)were taken milk and milk products once time/day, (70%) were didn't take sugary carbohydrates.

Table (7): Sleep Duration:

Do you sleep during the day?	Percentage
Yes	33%
No	44%
Sometimes	23%
Total	100%
When do you sleep regularly?	
Before 9(PM)	11%
9 (PM)-12(AM)	61%
After 12(AM)	28%
Total	100%
When do you wake up regularly?	
Before 6(AM)	24%

6(AM)-8(AM)	50%
After sunrise	26%
Total	100%

Table (7) shown that: the higher number of sample under study (44%) didn't sleep during the day, whereas higher numbers of them (61%) go to bed at range of time (9 pm-12am), half of them (50%) waked-up at range of time (6 am- 8 am).

DISCUSSION

The objective of this study was to describe the characteristics of women attending Alkalakla gym centers. It was found that the majority (80%) of these women belong to the age group between 20 and 29 years old. It is well known that is the most common age for marriage in many countries around the world including Sudan. During which women show special attention to their shapes. Similar findings were observed by Jones and et al., (2011). They found about 73.7% (+/-2.7) of 16-24 year olds had practiced sport during the last 4 weeks prior to their carried interviews compared with 16.7% (+/-2.0) of those aged 75+. Most women (52%) were single, this also support the reason of joining the gym center (ie. looking for beauty and better body shapes).

The majority of the women attending Alkalakla gym centers were highly educated, as up to 74% of these women either studying or completed university or above levels of education. Also most of them (75%) owned their houses themselves or by their families. These two factors were known indicators of high economic classes. Add to this the high cost of joining the gym centers in Sudan where only higher class women can afford. Similar results were obtained by Stefano (2004).

In the present study, the anthropometrics measurements of the studied women at Alkalakla gym centers showed that 70% of the women were overweight, and up to 88% their hip to

waist ratios was above 80%. Higher BMIs and higher waist to hip ratios are strong risk factors for many cardiovascular diseases. However, more than 90% of the women studies were fortunate that they were not suffering from any chronic diseases such as diabetes mellitus, hypertension or any other heart diseases. However, a higher percentage (32%) suffered from Arthritis. Still, slightly more than half (55%) of them were not satisfied with their health status. These women at the time of the study were at young ages, however, in the long run a high percentage of these women will probably suffer from these diseases epically if they do not control their weights.

Most of women studied (77%) perceived their weights as being fat. This was correct to the majority of overweight (70%) women as their actual BMIs indicate. 53% were joining the gym to reduce their weights. This proves that many Sudanese women have strong will to reduce their weights and being fat as a sign of beauty is no longer common as it used to be before, at least among the studied women. Up to 63% among these women joined the gym center because of a friend advice. This might reflect the importance of a normal body weight among this generation (age 20-29 years old).

Almost half of the sample studied (55%) joint to gym few days prior to the collection of data for this study. 53% could not specify for how long they will continue joining this gym center.

However, generally, almost all of these women (97%) reported that they were satisfied with the gym and their main reasons of satisfaction were good companionship and encouragement.

When the populations studied were asked about the practicing of other sports beside the gym, most of them (63%) didn't practice any other sport except that in the gym. 24% practiced walking as another type of sport which is a good way for weight management. Nevertheless, high percentages (74%) attend the gym three times weekly and this was recommended by the gym staff, and up to 67% usually stay more than one hour (most likely for two hours). The most preferred type of exercise of the women studied in the gym was found to be zumba dancing, as for up to 50% this was the only type of exercise they practice and 37% also practice zumba dancing and aerobics. This high percentage might probably be to the entertainment they enjoy besides exercising at the gym. Similar results were observed by Nieri and et al., (2015) who reported that women prefer zumba. They interviewed more than 40 women from southern California who ranged in age from 18-68 years old. These women came from different ethnic backgrounds, and the majority had taken other group fitness classes prior to zumba. These women said that zumba is fun, but aerobics are not.

Among the Kalakla women studied, 68% said that they feel comfortable during the gym classes, and up to 78% reported that exercising in the gym positively change their mood. Probably because it is fun which agrees with the Nieri et al (2015) study. 91% among the women studied preferred sport practicing within groups (especially friends). These results disagrees with that carried by Jones and et al., (2011), who reported that women were more likely than men to do sport with their spouse or partner, their children or other family members while men are more likely to do sport with their friends or with

a club, team or group.

Concerning the benefits of sports, most of Alkalakla women studied reported that they have benefited from the gym. Thus, 53% their weights were reduced and 5% increased their weights (these women were underweight and wanted to increase their weights). And up to 37% reported that they have increased their fitness.

Concerning the dietary intake of the kalakla women attending the gym, 56% were not satisfied with the quality and quantity of food they usually eat. 57% of them do not always read the readymade food ingredients. Although a high percentage among these women were highly educated but awareness about knowing the food ingredients to choose the most suitable was very low. Another indicator for the poor awareness of these women was that up to 83% had no idea that lower levels of physical activities can lead to obesity. Although up to 40% thought that, the best way for losing weight was exercise practicing at home and gym together, 32% thought that: diet and exercise was the best one, scientifically diet and exercise must be used together as to maintain weight and healthy weight loss (National Nutrition Surveillance, 2009). Thus, combined suitable healthy diet and regular exercise does appear to be the most effective therapy for weight loss, or weight gain and weight loss maintenance. The synergistic relationship appears to be that weight loss through dietary restriction alone results in reduction in energy expenditure, while physical activity increase energy expenditure and the combination of the two leads to reduction in body mass, without subsequent reduction in resting energy expenditure.

36% among Alkalakla women studied thought that obesity can lead to heart diseases, but 14% had no idea about that. Obesity is a major problem which can lead to many diseases such like; diabetes, heart diseases, infertility,

hypertension, Arthritis, psychological dysfunction. About half of women under study (55%) thought that: Fruits is most common type of food that leads to weight loss. whereas 9% thought that boiled food is the common one. Generally, both of these are correct as fruits are high in fiber and help in weight reduction. Boiling of the food rather than frying (high in oils) was also definitely healthier and has fewer calories which can help in weight reduction. These results showed that some of the kalakla women studied have a reasonable nutritional awareness.

The studied population meals intake was found to be less than three meals for half of them (51%) Up to 60% do not regularly eat the breakfast meal, and 66% do not eat lunch regularly. And up to 25% do not eat at all dinner. These results make these women at risk of gaining weight due to irregular meals. Robert, (1996) reported that breakfast is the most important meal of the day as sufficient amount of the various nutrients are needed to start the day filled with energy that lead to optimal level of performance through the day. Skipping of meals affect metabolism (make it slower) then slow rate of calories will be burnt that lead to the consumption of greater amount of calories and faster storage as fat. More frequent meals can increase energy level.

Concerning the method of food preparation, 46% reported fried food. This may lead to gaining more weight. 67% take herbals to reduce their weight and most of them (18 women) take cinnamon. Taking of herbs for weight reduction was not advisable as many herbal researches were incomplete and the exact doses to give the best results were not known.

61% among the studied kalakla women usually sleep less than 8 hours per day, that may make them more likely to increase their weights as Watson and et al., (2010) reported. They

compared sleeping 7–8 h/night, individuals sleeping with those who sleep ≤ 6 h. They found that individuals with less sleeping hours are at greater risk of being obese. Prospective family and cohort studies have found short sleep duration is associated with the development of obesity over time.

When assessing the intake of Alkalakla women attending gym centers for the well known foods that can cause weight gain, although most of women under study followed tough diet with low calories, but a high percentage eat fast foods (especially sandwiches) which is very popular among the age group 20-29 years old. ELhassan and et al., (2013) reported that there is a change in lifestyle and nutritional habits not only in Sudan but Worldwide. Due to the massive effect of the media that may give people mixed messages about what to eat to advertise their products, the rabid spread of restaurants that causes people to divert to such place rather than eating at home due to lack of motivation and due to fast life nowadays, fast food became the main diet taken particularly among young persons.

In the present study, most of women who attended Alkalakla gym, generally didn't take a healthy diet, they need to have a healthy diet set by dietitians, all gyms which were visited for this study had no dietitians, there were only sport coaches who search the internet to get the information on diets for these women which might be not very well scientifically studied and might be harmful or not suitable for these women.

CONCLUSION

Most of the participants of the present study had poor nutritional status (70% overweight). The reason may be poor nutritional knowledge which is reflected in their nutrients intake, the majority of women under study (69%) were taking fewer amounts of calories (< 1800 Kcal) than which

recommended according to their age (20-35Yrs). Most of women who attended gyms at Alkalakla area were students which reflect the more concerns of this generation about their weight and beauty.

A high prevalence of overweight and obesity, poor eating habits and inadequate knowledge were strong risk for chronic diseases of lifestyle, this may probably negatively their health now and in the future..

The study also found that the majority of the studied women their duration was less than the recommended and this might have also contributed to their elevated body mass indices. Most of sample studied had no idea about the risk factor of obesity; they had lack of knowledge about the effect of physical activities and exercising on weight. Coaches must be aware about that and they must always consult nutritionist for improving the awareness of women about their weights and the best ways to reduce their weights and stay healthy.

RECOMMENDATIONS

- 1- Intervention programs directed towards nutritional awareness of women are urgently needed for the sake of their own health and their children and the future generations.
- 2- Interventions for adopting healthy lifestyles are also needed.
- 3- Each fitness centers have to have at least one nutritionist as a consultant to help women achieving their ideal body weight in a healthy way.
- 4- Different types of media which are very easily accessed must be utilized by nutritionists to convey general healthy nutritional information and the best ways to achieve ideal weights.

- 5- Awareness about the benefit of sports and exercising are very important.
- 6- Policies restricting false advertisements regarding different fast foods and body weights have to be set.
- 7- There should be sports clubs in schools, universities and residential neighborhoods

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