



A STUDY ON ASSESSMENT OF NUTRITIONAL KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) OF GYM MEMBERS IN GUWAHATI, ASSAM

¹ Phyrnailin wahlang ²chandrama baruah

¹M.Sc Food, Nutrition and Dietetics

² Assistant Professor, Department of Food, Nutrition and Dietetics

Department of Food, Nutrition and Dietetics, Assam down town University, Guwahati,

Assam, India

ABSTRACT- The study was conducted to assess the Knowledge, Attitude and Practice of gym members of Guwahati. The study area was selected at Guwahati, Assam. The main objective of the study was to collect the demographic profile, second to assess the nutritional status and lastly to assess KAP (knowledge, attitude and practice) of the respondent. The sample was selected purposively. From the present study it was evident that the age group of 17-25 male and female respondents has the highest number of respondent followed by 26-35 age group of both male and female, next 36-49 age group and the last were 2 percent belong to age group below 16. For education qualification it show that 80 percent of both male and female were graduate, 16 percent female and 14 percent male were HSLC and the rest 4 percent female and 6 percent male belong to H.S. for anthropometric measurement it was found that 70 percent female and 50 percent male were under normal category, where 18 percent female and 34 percent male were under pre-obese, 16 percent female and 12 percent male were under overweight, however 6 percent female and 4 percent male were underweight according to the classification done by WHO. Nutritional knowledge of male members were 84, 8, 8 percent, for attitude 30, 54, 16 percent and for practice 34, 26, 40 percent for good, poor, average whereas knowledge of female members were 48, 36, 16 percent for attitude 28, 38, 34 percent and 30, 34, 36 percent for poor, average and good score. From the result it is evident that the gym members has good knowledge but still they need to improve their attitude and practice in order to achieve better result.

KEYWORD- Nutritional status, Nutritional Knowledge, Attitude and Practice.

INTRODUCTION

Gym is a sport that required an array of physical attributes including power, poise, endurance, and aesthetics. In order to develop the optimum physical attributes of a gym, they should understand a proper nutrition (Bangneschi, 2012). Exercise is an essential part of our routine in our day- to- day life. Exercise does not mean that you have to go to gym for daily activity, it only means to do some physical activity no matter how or where (Elmagd, 2016). A normal exercise can improve general health, build endurance and slow many of the effects of aging (Elmagd, 2016). Regular exercise significantly shows the effects of ageing. Not only physical activities give you more energy and make you feel relaxed but it also enables you to meet new people, boosts your self-esteem and maintains a feeling of independence. It also reduces the risk of many age related disorders, including diabetes, CVD such as stroke and heart attack and the bone diseases osteoporosis (Hark. L et.al, 2010). Nutrition is an important part of any physical fitness program. The main dietary goal for active individuals is to obtain adequate nutrition to optimize health and fitness or performance, but also promote healthy dietary practices in the long term (Mahalakshmi. K et.al, 2012). Good nutrition is also an important part of leading a healthy life style. Combined with physical activity, diet can help to reach and maintain a healthy weight, reduce risk of chronic diseases (like heart diseases and cancer) and promote the overall health (Jonnalagadda et.al, 2001). Proper nutrition prevent illness, improve health and optimize emotional, cognitive and physical capabilities .Food confers these benefits by providing the macro and micro nutrient to protect against diseases, support injury, healing process, emotional and spiritual needs.(Convey et.al, 2010). Nutrition is also crucial when it comes to weight loss, athletics performance and any physical activity. So a combination of physical activity and nutrition treatment give a better health outcome than just physical alone. (Skopirceva, 2010). There are other products which are mostly used by the person hitting the gyms. Dietary supplement

falls on this category. They are also known as food supplement or nutritional supplement and are intended to supplement the diet by providing nutrients such as minerals, fiber, vitamins, protein or amino acids etc., that may be missing or may not be consumed in sufficient quantities through a diet. (Singh, 2012). The amount of calories expended during exercise varies according to your gender and weight, because of their greater muscle mass, men burn more calories than women while doing the same activity and the heavier you are the more calories you will burn. Conversely, when you lose weight your calorie requirements decrease, even if you continued with the same level of physical activity (Hark. L et.al, 2010). Nutrition information is available from many dietary sources, however not all of these sources are reasonable and reliable. The accuracy of the provided information is affected by the source. In fitness centers, people tend to be more conscious about their nutrition and food choices (Balone, 2010). Hormones are regulatory molecules signalling to distant target tissues throughout the organisms (Flalt et.al, 2010). Use of hormone and nutritional supplement has become prevalent worldwide. Some studies have shown that a considerable number of people who consume these enhancements go for no medical advice before taking them. Different rates of the use of nutritional supplement and hormone have been reported throughout the world (Alshammari et.al, 2017). Another steroid is called an anabolic steroid. Anabolic – androgenic steroids (AS) are a class of man-made steroid hormone related to the hormone testosterone. Anabolic refers to muscle building. Anabolic steroids are taken orally or injected. Abuse of anabolic steroid can lead to sometimes serious irreversible health problems. Side effects of anabolic steroids include liver tumors, cancer, and fluid retention, increases LDL and decreases HDL (Falasi et.al, 2008). Higher density of supplement users may occupy the gyms. People who exercise in a gym may represent a major target for the supplement market due to their increased wide spread existence and to the ease of their access to a variety of sports food and nutritional supplements (Khoury et.al, 2011). Nutritional supplements are usually offered in an untypical form of food, including tablets, capsules, powders, or pills. Although many individuals use supplements, those who engaged in sport and physical activities were found to represent an important portion of people purchasing supplements (Khoury et.al, 2011). Supplements may also have their short and long term side effects. Short term side effects include headache, digestive problems, muscle cramping etc. whereas long term side effects include cardiovascular, kidney failure etc. (Aloufi et.al, 2019). Dietary supplements and performance enhancing drugs (PEDS) can provide an easy way to improve health and build muscle mass (Sharif et.al, 2018).

MATERIALS AND METHOD

The chapter deals with material and method used for conducting the research study entitled “A Study On Assessment of the Nutritional Knowledge, Attitude and Practice of gym Members of Guwahati, Assam” the procedure adopted to conduct the study has been described under the following headings.

- 3.1 Selection of study area
- 3.2 Selection of sample.
- 3.3 Collection of demographic profile of the members.
- 3.4 Assessing of nutritional status.
- 3.5 Assessing Knowledge, Attitude and Practice score of the members.
- 3.6 Statistical analysis.

3.1 SELECTION OF STUDY AREA.

The study was undertaken on the members of the gym under private sector residing in Guwahati, Assam. The study was confined in the city of Guwahati which was further divided into six areas that is Chandmari, Ganeshguri, Zoo-road, Narangi, Sixth-mile and Beltola. The area was selected on the basis of the following factor.

3.2 SELECTION OF SAMPLE.

A group of 100 (n=100) that is 50 male and 50 female members of the gym residing in Guwahati, Assam were randomly selected from 30 gyms to get information about their nutritional Knowledge, Attitude and Practice (KAP). The sample was selected considering the following factor:

- Willingness to participate
- Informed consents.

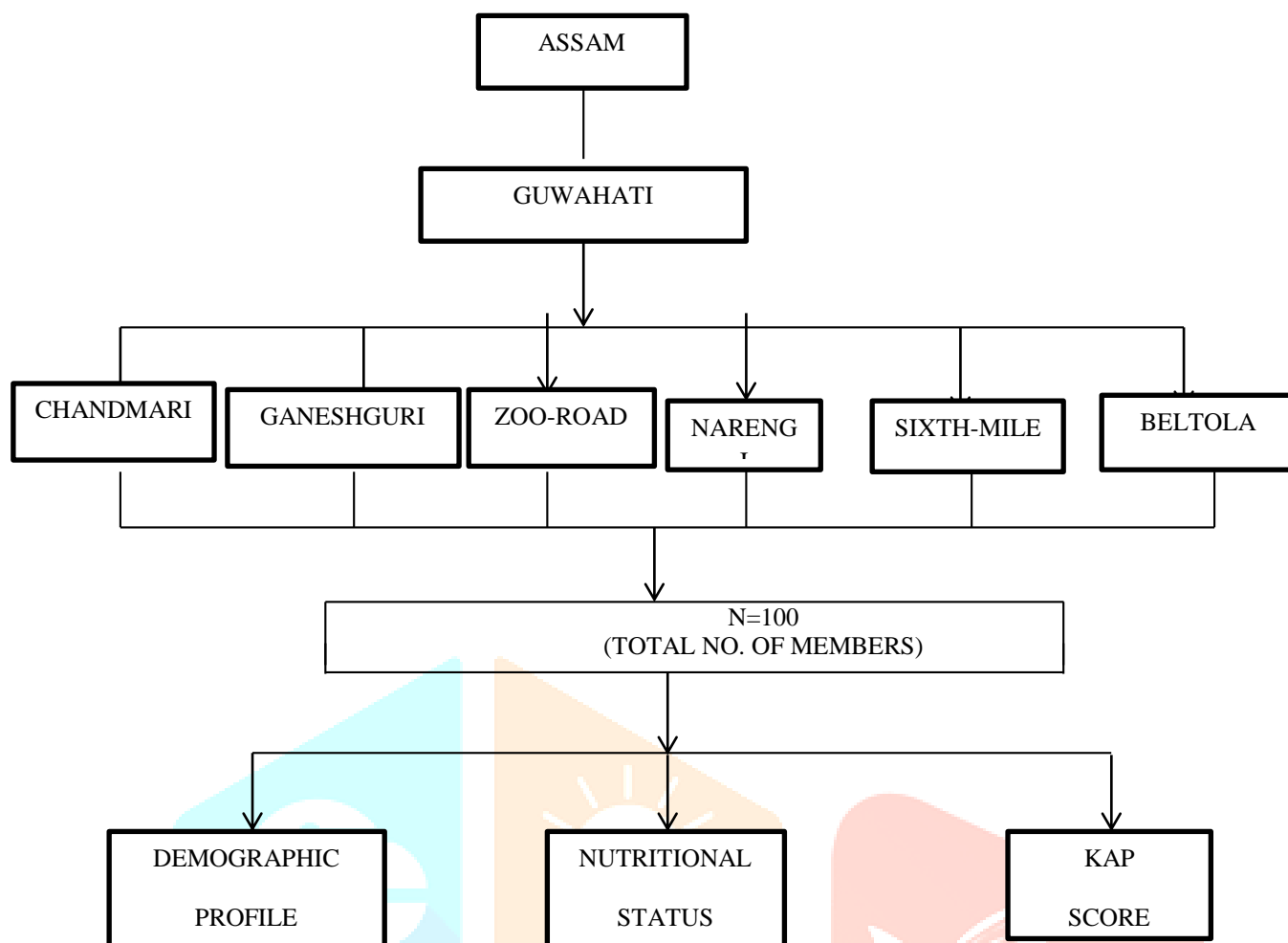


FIGURE 3.2: METHODOLOGY OF THE STUDY

3.3 COLLECTION OF DEMOGRAPHIC PROFILE OF THE MEMBERS.

Demographic profiles of the selected members of the gym were obtained by using a standardized pretested questionnaire which consists of age, gender, educational qualification etc. Hence the information received was coded, tabulated and components have been subjected to statistical analysis for description of the knowledge, attitude and practices by the gym members.

3.4 ASSESSING OF NUTRITIONAL STATUS.

Nutritional anthropometry is a measurement of human body at different ages and levels of nutritional status. Anthropometric measurement include height, weight, skin-fold thickness and circumferences etc., could identify the change of body composition to assess the nutritional status in specific population groups, including new born, children under age of five and adults (shrivastava et.al., 2016).

a) Height

According to Krishna k, height is defined as the measurement of an individual from head to foot, taking into consideration. It influence by both genetic and environmental factor. Height are taken without shoes, the person were positioned with feet together and flat on the base plate with their head and back straight against the wall. The measurements were then taken once the correct position was achieved.

b) Weight

Body weight is the most widely used and the simplest reproducible anthropometric measurement for the evaluation of nutritional status of both men and women. Weight measurements are taken without shoes, minimal clothing, without jewellery, without holding any support etc.

c) Body mass index (BMI)

Body mass index (BMI) is a mathematical calculation that estimate a person's health status based on his height and weight (Khanna et.al, 2019). It is measure of body fat based on height and weight that applied to adult men and women. BMI can be used to display for weight categories that may lead to health problem of an individual but it is not diagnostic of the body fatness or health of an individual. BMI for a person's use to measure weight in kilograms divided by the square of height in meters.

Table: 3.4. According to WHO Classification they are sub divided into the following groups.

WHO Classification	WHO cut off
Underweight	<18.5
Normal	18.5-24.9
Overweight	>25
Pre obese	25-29.9
Obese class I	30-34.9
Obese class II	35-39.9
Obese class III	>40

3.5 ASSESSING KNOWLEDGE, ATTITUDE AND PRACTICE SCORE OF THE MEMBERS.

Nutritional knowledge, attitude and practice of gym members were measure by using knowledge, attitude and practice score. The first section was designed to evaluate the nutritional knowledge of gym members, the second section was designed to determine the understanding the attitude toward nutrition and the last section was designed to evaluate the nutritional practices done by members of the gym. Each section contained 19,20 and 21 sets of statements with 3 possible answer “yes”, “no”, and “don’t know”. For evaluation, a score between 0-19 was used with which a correct answer considered as one point while as incorrect answer or a “don’t know” is regarded as zero. A score of the individual which is less than 5 corrected answer were consider as poor nutritional KAP, 5-10 was considered as median(average food safety knowledge and attitude) and 15 was considered as having a good level of food safety knowledge, attitude and practice. The KAP score were collected before providing nutritional education (per KAP score) and after providing nutritional education (post KAP score) and knowledge, attitude and practice were calculate and documented.

3.6 STATISTICAL ANALYSIS

All the data collected via different parameters were statistically analyzed and results obtained were tabulated. Mean and percentage were calculated by using Microsoft Office Excel 2010.

a) Mean

It is denoted by \bar{X} and is the sum of all observation (X_i) divided by the total number of observation (n).

a) Mean (\bar{X})

$$= \frac{\sum X_i}{n}$$

= Mean score

$$\sum Fx = \text{Total score}$$

$n =$ Total number of sample

b) Percentage

$$\text{Percentage} = \frac{\sum Fx}{n} \times 100$$

RESULT AND DISCUSSION

The purpose of the present study entitled “A Study on Assessment of Nutritional Knowledge, Attitude and Practice (KAP) of Gym Members of Guwahati, Assam” is to assess the nutritional knowledge, attitude and practice of gym members among different gym was randomly selected in Guwahati, Assam. Three point of knowledge scale was developed for assessing. The data collected on coding sheets and statistically analysed, the result obtained are presented and discussed under the following heading:

4.1 Demographic profile and diet survey.

4.2 Nutritional status.

4.3 Knowledge, Attitude and Practice score of the gym members.

4.1 DEMOGRAPHIC PROFILE AND DIET SURVEY.

Demographic profiles describe the composite profile of the background of the selected members in Guwahati. A total of 100 members were surveyed from different sites of Guwahati that is sixth-mile, chandmari, zoo-road, beltola, ganeshguri, narangi and the information collected on various parameters which include age, sex, education etc. Age and gender are both attribute statuses which often result in social differentiation evident in almost every human society. Study have shown a well-established fact that there are gender differences in health and mortality, women generally live longer than their male, they are more likely to become disable, and to remain in the state for a longer period (Doblhammer et.al, 2009).

Table 4.1 Percentage distributions of the respondents (gym members) according to age, sex, education qualification, often go to gym.

PARAMETERS	NUMBERS		PERCENTAGE (%)	
	Female	Male	Female	Male
Age				
16 below	-	1	0	2
17-25	36	30	72	60
26-35	9	12	18	24
36-49	5	7	10	14
50-65	0	0	0	0
66 above	0	0	0	0
Gender:				
Male	50			
Female	50			
Education qualification				
Up to H.S	2	3	4	6
Up to HSLC	8	7	16	14
Graduation and above	40	40	80	80
How often do you go to gym:				
1times per week	3	5	6	10
2-3 times per week	10	12	20	24
4-5 times per week	20	25	40	50
6+times per week	17	8	34	16

From the table 4.1 it was evident 72 percent of female respondent belong to age group of 17-25 years, 18 percent belong to the age group of 26-35 years and 10 percent fall under the age group of 36-49, whereas in respondent of male it show that 60 percent of respondent belong to age group of 17-25 years, 24 percent belong to the age group of 26-35, 14 percent belong to age group of 36-49 and 2 percent of respondent belong to age group of 16 and above.

From the table above it show that out of 100 members of respondent, 50 members are female and 50 members are male. The table above show that 80 percent of both male and female were graduate, while 16 percent female and 14 percent male respondent were up to HSLC and the rest 4percent female and 6 percent male respondent belong to H.S.

From the table 4.1 it was evident 72 percent of female respondent belong to age group of 17-25 years, 18 percent belong to the age group of 26-35 years and 10 percent fall under the age group of 36-49, whereas in respondent of male it show that 60 percent of respondent belong to age group of 17-25 years, 24 percent belong to the age group of 26-35, 14 percent belong to age group of 36-49 and 2 percent of respondent belong to age group of 16 and above.

From the table above it show that out of 100 members of respondent, 50 members are female and 50 members are male. The table above show that 80 percent of both male and female were graduate, while 16 percent female and 14 percent male respondent were up to HSLC and the rest 4percent female and 6 percent male respondent belong to H.S.

From the above table, it was evident that 40 percent of female respondent goes to gym 4-5 times per week, 20 percent goes 2-3 times per week and 6 percent goes 1 times per week, where as 50 percent males goes 4-5 times per week, 24 percent goes 2-3 times per week, 16 percent goes 6 times per week and 10 percent goes 1 times per week.

4.2 NUTRITIONAL STATUS.

Nutritional status is the mental state of an individual, which result from the relationship between nutrient and requirement and from the ability to digest, absorb and uses these nutrients. The utilization of adequate amount of food both in terms of quantity and quality is the one key determinant, which has significant impact on the nutritional status. The nutritional status can be measured for individuals as well as for population. For adults, general adequacy is assessed by measuring weight and height, the result is commonly expressed as the body mass index, the ratio of weight(kg) to height (cm) importance in regards to normal nutrition screening allow the detection of individual at risk of malnutrition. Malnutrition is caused by imbalanced food intake and faulty utilization of nutrients. The role of diet at the outbreak of many diseases and assessing the nutritional status of an individual, family and community are important for public health. Assessment of nutritional status involves two method i.e direct (deals with individual and measure the objective criteria) and indirect (use community health indices reflecting nutritional influences). These methods include anthropometric measurement, biochemical, clinical and dietary assessment. Anthropometric measurements are systematic measurement of the size, shape and composition of the human body. It is used to measure of an individual to determine if he/she needs nutrition intervention or to determine if malnutrition is a problem in a population.

Table: 4.2.1 Anthropometric measurement in terms of height and weight of the gym members.

PARAMETERS	AVERAGE	
	Male	Female
Height	168 cm=5.5 feet	157 cm=5.2 feet
Weight	70 kg	59 kg

The average height of male gym members was found to be 168 cm(5.5 ft.) and for average height for female respondent was found to be 157 cm (5.2 ft.) whereas the average weight of the male respondent was found to be 70kgs and average weight of female respondent was found to be 59kgs.

Table: 4.2.2 Body Mass Index classification of the gym members classified by World Health Organization.

CLASSIFICATION	NUMBERS		PERCENTAGE	
	Female	Male	Female	Male
Underweight	3	2	6	4
Normal	35	25	70	50
Overweight	3	6	6	12
Pre-obese	9	17	18	34

From the table above 4.2.3, it revealed that 70 percent of the female respondents were under the normal category, 18 percent of the respondent were pre-obese, whereas 6 percent were under underweight and overweight category, it was also revealed that 50 percent of the male respondent were under normal category, 34 percent of the respondent were pre-obese, 12 percent were under overweight and 4 percent were under underweight category according to the classification done by World Health Organization.

A study conducted by (Manyanga et.al, 2014) it found that underweight varied from 12.6% while overweight range from 8.7% -31.4% and obesity range from 0.6-9.3% in female, whereas overweight range from 6.7-35.9% in male.

4.3 KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) SCORE OG GYM MEMBERS.

Ali et.al, (2015) stated that optimum nutrient intake and good nutritional knowledge have been recognized as important factor in improving the athletic performance and health status of athletic. Lack of nutritional knowledge can lead to questionable dietary behavior, which can result in adverse effect on health and performance. The survey for gym members on their nutritional knowledge, attitude and practice was carefully designed to help evaluate the knowledge they have already. Survey question; consist of nutritional knowledge, attitude, practice and demographic section which evaluate the confidence of fitness professional towards learning more about nutrition. The rest of the questions were on frequency of providing nutrition advice, on how it is important to acquire valuable nutrition information. Participants answer the demographic question about their age, sex education qualification, sources of nutrition etc. All the data was calculate and provided in number, to establish whether they are significantly statistically or not. Table and graph are arranged to show the result and casual relationship. Question were asked to answer “yes” “no” “don’t know” to evaluate the nutritional knowledge, attitude and practice of the gym members.

Table 4.3.1 percentage distribution of the respondent (gym members according to their nutritional knowledge score

Sl.no	Statements	Yes	(%)	No	(%)	Don't know	(%)
1	Dietary supplement are safe to use.	Male=35 Female=30	70 60	Male=3 Female=15	6 30	Male=12 Female=5	24 10
2	Fats and oil are the food that causes weight gain	Male=33 Female=32	66 64	Male=15 Female=18	30 36	Male=4 Female= nil	8 nil
3	Taking pill is the solution to get nutrients.	Male=7 Female=10	14 20	Male=33 Female=39	66 78	Male=10 Female=1	20 2
4	Consuming alcohol has disadvantages on your work out	Male=34 Female=32	68 64	Male=12 Female=18	24 36	Male=4 Female=Nil	8 Nil
5	Proteins are the main sources for the muscle.	Male=34 Female=20	68 40	Male=16 Female=30	32 60	Male=Nil Female=Nil	Nil Nil
6	Drinking while exercise reduced performance	Male=15 Female=12	30 24	Male=27 Female=36	54 72	Male=8 Female=2	16 4
7	Anabolic steroid can affect your body weight	Male=30 Female=24	60 48	Male=10 Female=20	20 40	Male=10 Female=6	20 12
8	Healthy weight can be achieved by balanced food intake	Male=36 Female=31	72 62	Male=10 Female=17	20 34	Male=4 Female=2	8 4
9	Losing weight is about increasing physical activity and decreases calorie intake.	Male=34 Female=35	68 70	Male=8 Female=14	16 28	Male=8 Female=1	6 2
10	Consulting dietician/nutritionist is important while gymming	Male=31 Female=28	62 56	Male=12 Female=21	24 42	Male=7 Female=1	14 2
11	Dietary supplement make you healthy.	Male=34 Female=20	68 40	Male=8 Female=25	16 50	Male=8 Female=5	16 10
12	Vitamin supplement increases supplement	Male=37 Female=17	74 34	Male=7 Female=28	14 56	Male=6 Female=5	12 10
13	Are you being provide nutrition advice?	Male=34 Female=28	68 56	Male=14 Female=17	28 34	Male=2 Female=3	4 6
14	Are you currently go to gym.	Male=45 Female=34	90 68	Male=4 Female=14	8 28	Male=1 Female=2	2 4
15	Do you know what probiotics are?	Male=18 Female=13	36 26	Male=20 Female=33	40 66	Male=12 Female=4	24 8
16	Any chronic diseases (examples; diabetes and asthma).	Male=4 Female=8	8 16	Male=46 Female=41	92 82	Male=nil Female=1	Nil 2
17	Consuming tobacco has effect on your workout result.	Male=39 Female=34	78 68	Male=8 Female=14	16 28	Male=3 Female=2	6 4
18	Are you aware of balanced diet?	Male=40 Female=30	80 60	Male=9 Female=18	18 36	Male=1 Female=2	2 4
19	Egg white is better for muscle building and repair	Male=39 Female=29	78 58	Male=7 Female=18	14 36	Male=4 Female=3	8 6

In the survey, it was depicts that knowledge about nutrition of gym members that is more than 70 percent of male and 60 percent of females think that dietary supplement safe to use while gymming, whereas 6 percent males and 30 percent females do not think that dietary supplement are safe use. 24 percent males and 10 percent females do not know about the statement.

From the above table it shows that 66 percent of male and 64 percent of females think that fat and oil are the foods that cause weight gain; whereas 30 percent male and 36 percent female do not support. 8 percent male do not know about the statement.44 percent of male and

20 percent of female think that taking pills is the solution to get nutrient, hence 66 percent male and 78 percent female do not think that taking pills is the solution to get nutrient. 20 percent male and 2 percent female do not know about the statement. 68 percent of male and 64 percent of female agree to the statement that consuming alcohol has disadvantages on your work out result, whereas 24 percent males and 36 Percent female do not agree to the statement. 8 percent male do not know about the statement. 68 percent of male and 40 percent of female accept that protein are the main energy source for the muscle, however 32 percent male and 60 percent female do not accept that protein are the main energy source for the muscle. 30 percent of male and 24 percent of female believe that drinking while exercise reduce performance, whereas 54 percent male and 72 percent female do not believe that drinking while exercise reduce performance. 16 percent male and 4 percent female do not know about the statement. 60 percent of male respondent and 48 percent of female respondent think that anabolic steroid can affect your body weight; however 20 percent male and 40 percent female do not think that anabolic steroid can affect your body weight. 20 males and 12 female do not 72 percent of male and 62 percent of female accept that healthy weight can be achieved by balanced food intake, however 20 percent male and 34 percent female do not accept that healthy weight can be achieved by balanced diet. 8 percent male and 4 percent female do not know about the statement Whether anabolic steroid can affect your body weight or not. 68 percent of males and 70 percent of females agree to the statement that losing weight is about increasing physical activity and decreases calorie intake, hence 16 percent male and 28 percent female do not agree to the statement. 16 percent male and 2 percent female do not know whether losing weight is about increasing physical activity and decrease calorie intake. 62 percent of males and 56 percent of female think that consulting dietician/nutritionist is important while gymming, however 24 percent male and 42 percent female do not think that consulting dietician/nutritionist is important while gymming. 14 percent male and 2 percent female do not know about the statement. 74 percent of male and 34 percent of female agree that vitamins supplement increases supplement, whereas 14 percent male and 56 percent female do not agree that vitamin supplement increases supplement. 12 percent male and 10 percent female do not know about the statement. 68 percent of males and 56 percent female agree that they have been provide nutrition advice, while 28 male and 34 female they do not provide nutrition advice. 4 percent male and 10 percent female do not know about the statement. 90 percent of males and 68 percent of female agree to the statement that they currently go to gym, whereas 8 percent male and 28 percent female do not agree with the statement. 2 percent male and 4 percent female do not know about the statement not know whether consuming tobacco has effect on your work out result. 80 percent of males and 60 percent of female agree that they are aware of balanced diet, however 18 percent male and 36 percent female do not aware of balanced diet. 2 percent male and 4 percent female do not know about the statement. 78 percent of male and 58 percent of female respondent think that egg white is better for muscle building and repair, whereas 14 percent and 36 female do not think egg white is better for muscle building and repair. 16 percent male and 6 percent female do not know about the statement.

36 percent of male and 26 percent of female agree that they know about probiotics, whereas 40 percent male and 66 percent female do not know about probiotics. 24 percent male and 8 percent female do not know about the statement. 78 percent of male and 58 percent of female respondent think that egg white is better for muscle building and repair, whereas 14 percent and 36 female do not think egg white is better for muscle building and repair. 16 percent male and 6 percent female do not know about the statement. 20 males and 12 female do not whether anabolic steroid can affect your body weight or not. 8 percent of males and 16 percent of females think that they have chronic diseases, whereas 92 male and 82 female do not think that they have chronic diseases. 2 percent of female do not know about the statement.

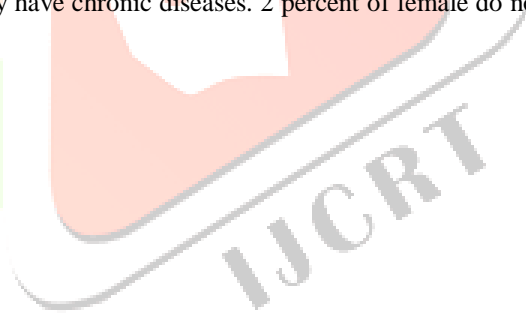
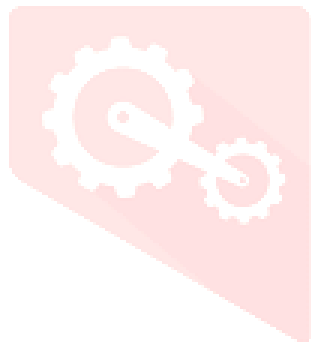


Table 4.3.2 Percentage distribution of the respondent (gym members) according to their nutritional attitude score

Sl.no	Statement	Yes	(%)	No	(%)	Don't know	(%)
1	Do you think nutrition is not important for health	Male=7 Female=15	14 30	Male=43 Female=35	86 70	Male=Nil Female=Nil	Nil Nil
2	Does fast food make a person over weight	Male=45 Female=33	90 66	Male=4 Female=16	8 32	Male=1 Female=1	2 2
3	Do you think dieting is easy way to lose weight	Male -18 Female-20	36 40	Male -30 Female-30	60 60	Male -2 Female-nil	4 Nil
4	Do you exercise elsewhere other than gym	Male -15 Female-12	30 24	Male -35 Female-38	70 76	Male -Nil Female-Nil	Nil Nil
5	Did you know the good sources of protein	Male -40 Female-32	80 64	Male -8 Female-16	16 32	Male -2 Female-2	4 4
6	Do you think it is a must to be a non-vegetarian	Male -8 Female-10	16 20	Male -30 Female-38	60 76	Male -2 Female-2	4 4
7	Did you prefer internet or book for your knowledge about sources of nutrition	Male -38 Female-31	76 62	Male -10 Female-18	20 36	Male -2 Female-1	4 2
8	Do you think balanced diet is important	Male -39 Female-35	78 70	Male -10 Female-15	20 30	Male -1 Female-Nil	2 Nil
9	Have you ever had a nutrition assessment done before	Male -16 Female-25	32 50	Male -33 Female-24	66 48	Male -1 Female-1	2 2
10	Do you eat large quantities of food in dinner	Male -16 Female-10	32 20	Male -34 Female-38	68 76	Male -Nil Female-2	Nil 4
11	Do you think supplement is enough to maintain good health	Male -10 Female-13	20 26	Male -38 Female-34	76 68	Male -2 Female-3	4 6
12	Are you able to eat 5portion of vegetable and fruits each day	Male -28 Female-27	56 54	Male -22 Female-21	44 42	Male -Nil Female-2	Nil 2
13	Have you ever use any of your friend to use gym	Male -23 Female-16	46 32	Male -27 Female-32	54 64	Male -Nil Female-2	Nil 2
14	Do you have any reason for using dietary supplement	Male -24 Female-22	48 44	Male -23 Female-27	46 54	Male -3 Female-1	6 2
15	Have you ever use metabolic steroid or PED	Male -13 Female-25	26 50	Male -33 Female-24	66 48	Male -4 Female-1	8 2
16	In your experience, do you find that PED give better result than supplement	Male -8 Female-23	16 46	Male -16 Female-16	32 32	Male -26 Female-11	52 22
17	Have you ever heard about anabolic steroid	Male -25 Female-21	50 42	Male -15 Female-24	30 48	Male -10 Female-5	20 10
18	Do you think that anabolic steroid use can affect the size of the muscle	Male -21 Female-16	42 32	Male -7 Female-7	14 14	Male -22 Female-27	44 54
19	Protein supplement are likely to give most effective choice for muscle gain	Male -39 Female-25	78 50	Male -4 Female-24	8 48	Male -7 Female-1	14 2
20	Do you think doing yoga can reduce weight than gym	Male -11 Female-6	22 12	Male -27 Female-40	54 80	Male -12 Female-4	24 8

From the above table represent the attitude towards nutrition of gym members, 30 percent of female and 14 percent of males think that nutrition is not important for health, whereas 70 percent female and 86 percent male think that nutrition is not important for health. 66 percent of females and 90 percent of male agree to the statement that fast food make a person overweight, however 32 percent female and 8 percent male do not agree that fast food make a person overweight. 2 percent of both male and female do not know about the statement. 40 percent of female and 36 percent of male think that dieting is an easy way to lose weight, whereas 60 percent of both female and male do not think that dieting is an easy way to lose weight. 4 percent male do not know about the statement. 24 percent of female and 30 percent of male agree that they have been exercise elsewhere other than gym, whereas 76 percent female and 70 percent male do not exercise anywhere other than gym. 64 percent of female and 80 percent of male agree to the statement that they know about the good source of protein, however 32 percent female and 18 percent male do not agree about the good source of protein. 4 percent of both female and male do not know the good source of protein. 20 percent of female and 16 percent of male think that it is a must to be Non-vegetarian, however 76 percent female and 60 percent male do not think that it is a must to be Non-vegetarian. Both 4 percent of male and female do not know about the statement.

62 percent of female and 76 percent of male agree to the statement that they prefer internet/book for the knowledge about sources of nutrition, whereas 36 percent female and 20 percent male do not agree that they prefer internet for the knowledge about sources of

nutrition. 2 percent female and 4 percent male do not know about the statement.20 percent of female and 32 percent of male think that they eat large quantity of food in dinner; whereas 76 percent female and 68 percent male do not think they eat large quantity in dinner. 4 percent female do not know about the statement.26 percent of female and 20 percent of male think that supplement is enough to maintain a good health, however 68 female and 76 male do not think that supplement is enough to maintain a good health. 6 percent female and 4 percent male do not agree to the statement.54 percent of female and 56 percent of male agree to the statement that they eat 5portion of vegetable and fruit in each day, hence 42 percent female and 94 percent male do not agree that they able to eat 5portion of vegetable and fruit in each day. 4 percent of female do not know about the statement.32 percent of female and 46 percent of male think that they ever use any of your friends to use gym, whereas 64 percent female and 54 percent male do not think that they use any of your friend to use gym. 4 percent female do not know about the statement.44 percent of female and 48 percent of male think that they have some reason for using dietary supplement, however 54 percent female and 46 percent male do not think that they have any reason for using dietary supplement. 2 percent female and 6 percent male do not know about the statement.50 percent of female and 26 percent of male think that they have ever used metabolic steroid or PED; hence 48 percent female and 66 percent male do not think that they have ever use metabolic steroid or PED. 2 percent female and 8 percent male do not know whether they have ever use metabolic steroid or PED.46 percent female and 16 percent male agree to the statement that in their experience they have find that PED give better result than better supplement, however 32 percent of both male and female do not agree that PED give better result than better supplement. 22 percent female and 52 male do not know whether PED give better result than better supplement.42 percent of female and 50 percent of male accept that they already heard about anabolic steroid, whereas 48 percent female and 30 percent male do not accept that they ever heard about anabolic steroid. 10 percent female and 20 percent male do not know about the statement.32 percent of female and 42 percent of male think that anabolic steroid use can affect the size of the muscle, whereas 14 percent of both female and male do not think that anabolic steroid use can affect the size of muscle. 54 percent female and 44 percent male do not know whether anabolic steroid use can affect the size of the muscle.50 percent of female and 78 percent of male think that protein supplement are likely to give most effective choice for muscle gain, while 48 percent female and 8 percent male do not think that protein supplement are likely to give most effective choice for muscle gain. 2 percent female and 14 percent male do not know about the statement.12 percent of female and 22 percent of male think that supplement is enough to maintain good health, whereas 80 percent female and 54 percent male do not think that supplement is enough to maintain good health. 8 percent female and 24 percent male do not know about the statement.

Knowledge, alone is not enough to ensure good nutritional practices, attitude also affect behaviour (Werblow et.al, 1978). Nutritional attitude are positively and significantly correlated, indicating that more nutrition knowledge usually result in more positive towards nutrition (Endres and perron, 1985).

Table 4.3.3 percentage distribution of the respondent (gym members) according to their nutritional practice score

Sl.no	Statement	Yes	(%)	No	(%)	Don't know	(%)
1	Do you think good nutrition is important	Male-49 Female-48	98 96	Male-1 Female-2	2 4	Male-Nil Female-Nil	Nil Nil
2	Do you take proteins rich food like milk, egg everyday	Male=43 Female-25	86 50	Male=7 Female=29	14 58	Male=Nil Female=1	Nil 2
3	Are you aware about the five food group	Male-32 Female-27	64 54	Male-12 Female-20	24 40	Male-6 Female-3	12 6
4	Do you eat junk food	Male-21 Female-22	42 44	Male-28 Female-28	56 56	Male-1 Female-Nil	2 Nil
5	Do you smoke?	Male-14 Female-6	28 12	Male-36 Female-44	72 88	Male-Nil Female-Nil	Nil Nil
6	Do you consume alcohol?	Male-16 Female-5	32 10	Male-33 Female-45	66 90	Male-1 Female-Nil	2 Nil
7	Do you use any medicine for maintenance body weight	Male-2 Female-7	4 14	Male-46 Female-41	92 82	Male-2 Female-2	4 4
8	Do you think protein supplement is necessary during work out	Male-16 Female-27	32 54	Male-29 Female-21	58 42	Male-5 Female-2	10 4
9	Did you frequently uses any dietary supplement	Male-17 Female-21	34 42	Male-31 Female-29	62 58	Male-2 Female-Nil	4 Nil
10	Have you noticed any different in your general health after using supplement	Male-20 Female-18	40 36	Male-23 Female-26	46 52	Male-7 Female-6	14 12
11	Did you experience any side effect caused by supplement	Male-6 Female-8	12 16	Male-39 Female-40	78 80	Male-5 Female-3	10 6
12	Is well balanced diets better than taking supplements	Male-35 Female-34	70 68	Male-7 Female-12	14 24	Male-8 Female-4	16 8
13	Do you think eating less and more exercise is a proper way of losing weight.	Male-21 Female-23	42 46	Male-24 Female-25	48 50	Male-5 Female-2	10 4
14	Do you use anabolic steroid?	Male-7 Female-15	14 30	Male-38 Female-31	76 62	Male-5 Female-4	10 8
15	Do you know the different type of steroid	Male-13 Female-18	26 36	Male-27 Female-24	54 48	Male-10 Female-8	20 16
16	Do you think anabolic steroid can lead both emotional and physical problem	Male-21 Female-22	42 44	Male-10 Female-8	20 16	Male-19 Female-20	38 40
17	Do you take vitamins and mineral supplement everyday	Male-18 Female-12	36 24	Male-31 Female-32	62 64	Male-1 Female-6	2 12

18	Do you able to use the equipment in gym correctly	Male-38 Female-31	76 62	Male-10 Female-14	20 28	Male-2 Female-5	4 10
19	Do you know the following foods will you typically find probiotics?	Male-19 Female-21	38 42	Male-18 Female-22	36 44	Male-13 Female-7	26 14
20	Do you know what benefit probiotic can offer	Male-22 Female-18	44 36	Male-16 Female-23	32 46	Male-12 Female-9	24 18
21	Do you take health supplement	Male-4 Female-15	8 30	Male-46 Female-34	92 68	Male-Nil Female-1	Nil 2

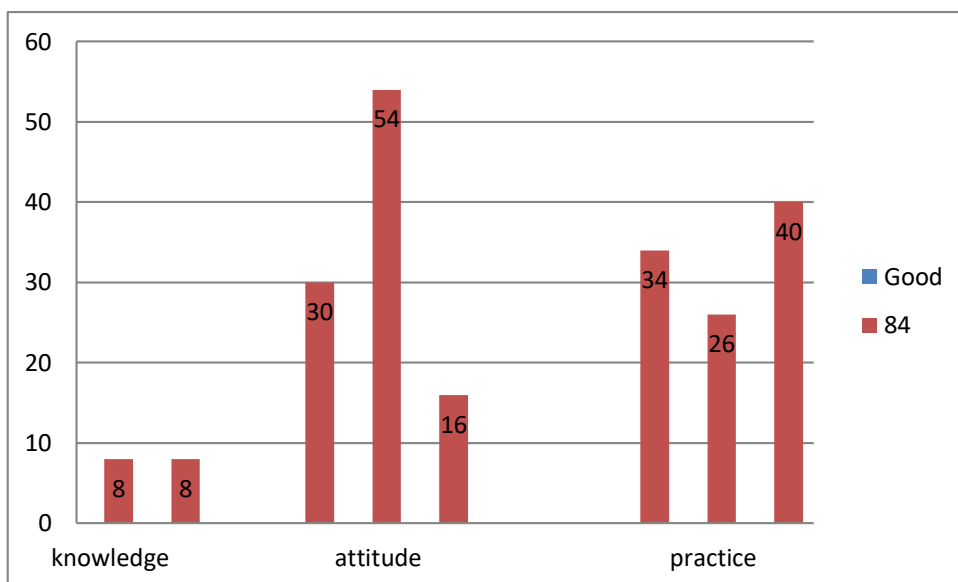
The above table represents the practice towards nutrition of gym members, 98 percent of male and 96 percent of female think that good nutrition is important, whereas 2 percent male and 4 percent female do not think that good nutrition is important.

86 percent of male and 50 percent of female take proteins rich food like milk, egg every day, however 14 percent of male and 58 percent do not take protein rich food like milk, egg, every day. 2 percent female do not know about the statement. 64 percent of male and 54 percent of female aware about the five food group, hence 24 percent male and 40 percent female do not aware about the five food group. 12 percent male and 6 percent female do not know about the statement. 43 percent of male and 44 percent of female eat junk food, whereas 56 percent of both male and female do not eat junk food. 28 percent of male and 12 percent of female smoke and 72 percent male and 88 percent female do not smoke. 32 percent of male and 10 percent of female consume alcohol, whereas 66 percent male and 90 percent female do not consume alcohol. 2 percent male do not know about the statement. 4 percent of male and 14 percent of female use any medicine for maintenance body weight; however 92 percent male and 82 percent female do not use any medicine for maintenance body weight. 4 percent of both male and female do not know about the statement. 32 percent of male and 54 percent of female think that protein supplement is necessary during work out, while 58 percent male and 42 percent female do not know that protein supplement is necessary during workout. 10 percent male and 4 percent female do not know about the statement. 34 percent of male and 42 percent of female frequently uses any dietary supplement, whereas 62 percent male and 58 percent female do not use any dietary supplement. 4 percent male do not know about the statement. 40 percent of male and 36 percent of female noticed different general health after using supplement, however 46 percent male and 52 percent female did not noticed any different general health after using supplement. 14 percent male and 12 percent female do not know about the statement. 12 percent of male and 16 percent of female experience side effect caused by supplement, whereas 78 percent male and 80 percent female do not experience any side effect caused by supplement. 10 percent male and 6 percent female do not know about the statement. 70 percent of male and 68 percent of female think that well balanced diets better than taking supplements, whereas 14 percent male and 24 percent female do not know that well balanced diets better than taking supplement. 16 percent male and 8 percent female do not know about the statement. 42 percent of male and 46 of female think that eating less and more exercise is a proper way of losing weight, while 48 percent male and 50 percent female do not think that eating less and more is a proper way of losing weight. 10 percent of male and 4 percent of male do not know about the statement. 14 percent of male and 30 percent of male use anabolic steroid, whereas 76 percent male and 62 percent female do not use anabolic steroid. 10 percent male and 8 percent female do not know about the statement. 26 percent of male and 36 percent of female know the different type of steroid, 54 percent male and 48 percent female do not know the different types of steroid. 20 percent male and 16 percent female do not know about the statement. 42 percent of male and 44 percent of female think that anabolic steroid can lead both emotional and physical problem, hence 20 percent male and 16 percent female do not think that anabolic steroid can lead both emotional and physical problem. 38 percent male and 40 percent female do not know about the statement. 36 percent of male and 24 percent of female take vitamins and mineral supplement every day, whereas 62 percent male and 64 percent female do not take vitamin and mineral supplement every day. 2 percent male and 12 percent female do not know about the statement. 76 percent of male and 62 percent of female use the equipment in gym correctly; however 20 percent male and 28 percent female do not use the equipment in gym correctly. 4 percent male and 10 percent female do not know whether they use the equipment correctly.

38 percent of male and 42 percent of female know the following foods will you typically find probiotics, whereas 36 percent male and 44 percent female do not know the following food that will you typically find probiotics. 26 percent male and 44 percent female do not know about the statement. 44 percent of male and 36 percent of female know what benefit probiotics can offer, while 32 percent male and 46 percent female do not know what benefit probiotics can offer. 24 percent male and 18 percent female do not know about the statement. 8 percent of male and 30 percent of female take health supplement, however 92 percent male and 68 percent female do not take health supplement. 2 percent of female do not know about the statement

.Although individuals perceive information, they only internalize and operationalize what is perceived as important to them. Therefore, it is important for athletes to understand the important of nutritional practices as the effects of poor nutrition practices can be detrimental to their performance and health (Seminara, 2007).

Graph: 4.3.4 Percentage distribution of the respondent (male) according to their Knowledge, Attitude and Practice score.



From the above graph, it was observed that 84 percent of the male members had good knowledge score, 8 percent have average knowledge and poor knowledge. For attitude 54 have the highest average score, 30 percent had good average and 16 percent have poor average. For practice 40 percent have poor practice score, 34 percent have good score and 26 have average score. The good knowledge score have the highest percentage score from the good attitude and good practice; the average attitude score have the highest percentage score, average practice score and the average knowledge score and the poor practice score have the highest percentage from the poor knowledge score and poor attitude score.

From the survey it was found that the male respondent members of the gym have good knowledge, average attitude and poor practice.

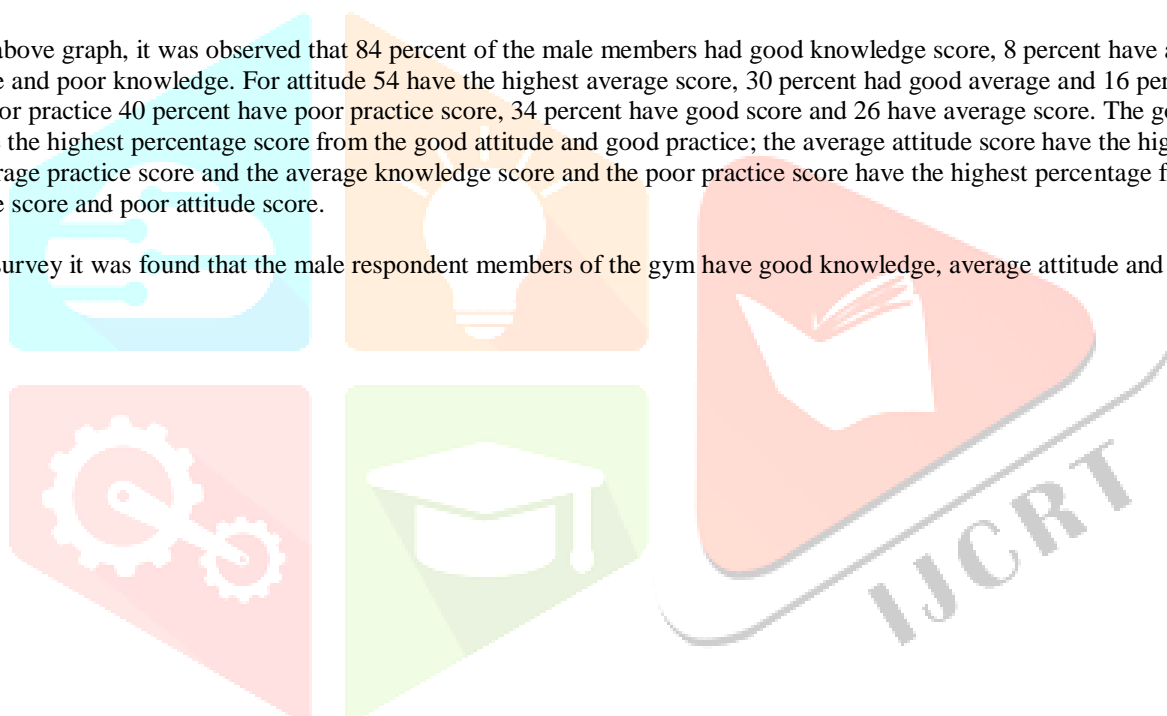
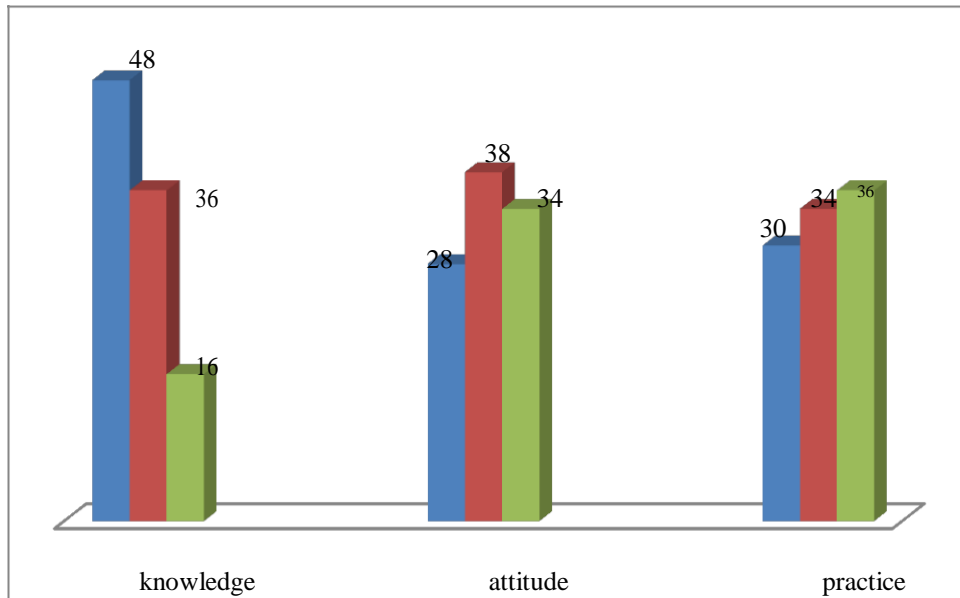


TABLE 4.3.5 Percentage distribution of the respondent (female) according to Knowledge, Attitude and Practice score

From the graph 4.3.5, it was evident that 48 percent of female respondent had good knowledge, 36 percent have average knowledge and 16 percent have poor knowledge. About nutrition for attitude 28 percent have good attitude, 38 percent have average attitude and 34 percent have poor attitude score and for practice 30 percent have good practice, 34 percent have average score and 36 percent have poor practice.

CONCLUSION

Regular exercise is important not only to make you physically fitter but also improving all body health. Daily exercise can reduce stress and anxiety, improve self-confidence, increase muscle and bone strength. Exercise and physical activity can have immediate and long term health benefit. Most important regular activity can improve quality of life. A minimum of 30 minute a day can allow enjoying these benefits. According to research nutritional has the largest impact on our fitness. Since gym is increasing day by day to build physical fitness and to improve health and maintaining physical structure nutrition play a very important role in attaining high level of achievements in sports. Nutrition is also important for athletes because it provides energy required to perform the activity. Main dietary goal for active individual is to obtain adequate nutrition to optimize health and fitness performance, not only important to help improve performance but also promotes a healthy dietary practice in the long-term. Nutritional knowledge is an important tool in assessing the nutritional of an individual, group or community.

The present study was conducted to assess the knowledge, attitude and practice of gym members. It was found that the nutritional knowledge of the male members were 84, 8, 8 percent, for attitude 30, 54, 16 and for practice 34, 26, 40 percent respectively. Nutritional knowledge of female members was 48, 36, 16 percent respectively, for attitude 28, 38, 34 percent and for practice 30, 34, 36 percent. The study released that male gym members have good nutritional knowledge, average attitude and poor practice, whereas female members good nutritional knowledge, average attitude and poor practice. Even though male and female of gym members have good nutrition knowledge on nutrition but their practice regarding the important of nutrition and their lifestyle was poor and attitude towards the goals was average. Without proper nutrition, exercise is not enough to create a healthy body, or a safeguard a health mind. Healthy food intakes are the most important part of fitness program. Some physicians are teaching healthy eating habit and lifestyle as a way to improve overall health. Healthy eating habits become a lifestyle. Nutrition can help enhance athletic performance. An active lifestyle and exercise routine, along with healthy eating, is the best way to stay healthy. Eating and physical activity are behaviour in which all humans must engaged every day. Register dieticians who is specializing in sports nutritionists play important role in integrating exercise with nutrition principles, in order for members to maintain optimal health and attain ideal sport performance. RD (register dietician) could provide medical nutrition therapy, comprehensive nutrition assessment on sports nutrition, and identify nutrition problem, which are affecting health and performance, absent for the most part of the gym. Nutrition education aim to enhanced knowledge and improve dietary intake in athletes. Understanding athlete's nutritional knowledge and its influence on dietary intake will inform nutrition education program. Nutrition professional are very valuable resource for increasing knowledge and promoting more positive attitude and practice/behaviour. We should definitely find the motivation to work out on a regular basis and stay in shape, healthy eating should actually be the foundation of a healthy lifestyle.

REFERENCE

1. Abou Elmagd, M. (2016). Benefits, need and importance of daily exercise. *International Journal of Physical Education, Sports and Health*, 3(5).
2. Al-Falasi, O., Al-Dahmani, K., Al-Eisaei, K., Al-Ameri, S., Al-Maskari, F., Nagelkerke, N., & Schneider, J. (2008). Knowledge, attitude and practice of anabolic steroids use among gym users in Al-Ain District, United Arab Emirates. *Open Sports Med J*, 2, 75-81.
3. Alshammari, S. A., AlShowair, M. A., & AlRuhaim, A. (2017). Use of hormones and nutritional supplements among gyms' attendees in Riyadh. *Journal of family & community medicine*, 24(1), 6.
4. Balone, K. E. (2010). Fitness center members' general nutrition knowledge, popular nutrition information sources, and perceived reliability of the sources (Doctoral dissertation, D'Youville College).
5. Bagneschi, C. (2012). Nutritional knowledge of female collegiate gymnasts (Doctoral dissertation, D'Youville College).
6. El Khoury, D., & Antoine-Jonville, S. (2012). Intake of nutritional supplements among people exercising in gyms in Beirut city. *Journal of nutrition and metabolism*, 2012.
7. Hark lisa and DR deen drawin. (2010). Nutrition for life.
8. Jonnalagadda, S. S., Rosenbloom, C. A., & Skinner, R. (2001). Dietary practices, attitudes, and physiological status of collegiate freshman football players. *Journal of Strength and Conditioning Research*, 15(4), 507-513.
9. Skopinceva, J. (2017). Assessing the nutrition related knowledge, attitudes, and beliefs of fitness professionals. *Adv Obes Weight Manag Control*, 6(3), 107-111.
11. Sharif, S. I., Mohammed, A., Mohammed, I., & Sharif, R. S. Evaluation of knowledge, attitude and use of dietary supplements among people exercising in the gym in Sharjah-United Arab Emirates.

