BACKGROUND
Obesity refers to accumulation of excessive or abnormal amount of body fat and predisposed by genetic factors, lack of physical activity and or consumption of food rich in fat and sugar. Obesity is a major risk factor for type 2 diabetes, coronary artery disease, hypertension, osteoarthritis. Recent data ranked UAE as 5th place in most obese people around the world. Recent studies also demonstrated the higher incidence of obesity in children and young adults which is of great concern. With this background, present study was conducted to measure the Body Mass Index (BMI), waist circumference, type of food consumption and also to correlate the type of diet with anthropometric measurements among the students of RAKMHSU.

MATERIALS AND METHODS
Study population comprised of 188 students of RAKMHSU and among them 146 were female and 42 were male. Quantitative approach for measurement for participant’s BMI, waist circumference were undertaken. Qualitative approach to know the type of diet using DINE “Dietary Instrument for Nutrition Education” questionnaire was undertaken. Data was analysed by descriptive statistics and Pearson’s correlation using SPSS 18 software

RESULTS
According to our study, about 27% of students were overweight, 14% were obese and 56% were having the normal BMI. We have found that around 2/3rd of the students were consuming less fibre and half of the students had more saturated fat intake. Waist circumference correlated positively with saturated fat intake and negatively with dietary fibre and unsaturated fat intake.

CONCLUSION
Health science education is stressful throughout the whole course of training. The amount of material to be absorbed, social isolation and examination pressure can lead to psychological stress which can cause increased fast food consumption, skipping of diet and lack of physical activity can gradually lead to obesity.

KEYWORDS
Obesity, Waist Circumference, Body Mass Index, Diet, Fat, Physical Activity, Genetic Factors.


BACKGROUND
Obesity refers to accumulation of excessive or abnormal amount of body fat. Obesity is mainly predisposed by genetic factors which are further contributed by lack of physical activity and consumption of food rich in fat and sugar. Obesity is a major risk factor for type 2 diabetes, coronary artery disease, hypertension, osteoarthritis. Recent WHO global estimates in 2014 suggests over 600 million were obese.

Studies conducted by National Health and Nutrition Examination Survey (2009- 2010) suggests more than 1 in 3 adults are considered to be obese. The United Arab Emirates (UAE) ranked as the fifth place in most obese people around the world, according to research. A recent study conducted in the UAE demonstrated that the incidence of obese children is approximately 20 percent among the age group 6 to 10 years old, and about 40 percent among 11 to 19 years old in the UAE. Major reason for the emergence of obesity in children and young adult are attributed to consumption of over 3000 calories per day which is about 20% more than recommended dietary calorie allowance. Along with diet, other causes that account for obesity are sleep apnoea, sedentary lifestyle, hypothyroidism, drugs, menopause and pregnancy in women, polycystic ovarian syndrome, genetic and family history.

Research conducted by many universities around the world regarding the prevalence of obesity among medical students showed that approximately 5-7% of the medical students were obese.
Health science education is stressful throughout the whole course of training. The amount of material to be absorbed, social isolation, examination pressure can lead to psychological stress which can cause increased fast food consumption, skipping of the diet and lack of physical activity can gradually lead to obesity. The obesity can be measured using simple anthropometric parameters like BMI, waist circumference and waist-hip ratio. Early detection of obesity in children and young adults and intervening with proper treatment modalities like diet, exercise will help to decrease the mortality and morbidity associated with obesity. Present study is aimed to find out the relationship between the type of food and BMI & waist circumference among the students of RAK Medical and Health Sciences University. Present study is designed to know the type of food consumption and its relation with body mass index (BMI) and waist circumference (WC) among the students of RAK Medical and Health Sciences University.

**MATERIALS AND METHOD**

The study was conducted in 188 students of RAK Medical and Health Sciences University which constituted students from three sister colleges, RAK Medical, Nursing and Pharmacy. Both male and female students were included in the study and constituted from different years starting from first year to final year excluding interns. Dental students were not a part of the study due to accessibility issues. The age group of 18-24 years were included in the study. Students were contacted during their free hours and after the briefing was done, written consent was obtained. The validated questionnaire titled “Dietary Instrument for Nutrition Education” (DINE) was administered to know the type of food and the BMI parameters were collected followed by distribution of the questionnaire.[10] Body weight was measured using a calibrated portable weighing machine of 150-kilogram capacity, placed on a levelled floor. Height was measured with a flexible tape of 150 cm of length. Body Mass Index (BMI) was be calculated by using the formula: weight in kg/(height in m)^2. The BMI classification criteria used will be those provided by the World Health Organization, which were: Low-weight under 18.5 kg/m^2, normal weight 18.5 to 24.9 kg/m^2, overweight 25 to 29.9 kg/m^2, and obesity equal to or higher than 30 kg/m^2 (level I 30 to 34.9 kg/m^2; level II 35 to 39.9 kg/m^2; and level III > 40 kg/m^2). Waist circumference was measured using a tape at the level of umbilicus. Value in centimetres equal to or higher than 80 cm for females and equal to or higher than 94 cm for males are considered as high.[4]

Data was entered into SPSS 18th software and analysed by descriptive statistics (Mean, standard deviation) and correlation between the diet and anthropometric measurements calculated using Pearson’s correlation.

**RESULTS**

According to our study, about 27 % of students were overweight, 14% were obese and 56% were having the normal BMI (Figure 1). As shown in the Figure 2, 56% were having normal waist circumference and 44% students were coming under high risk waist circumference category. We have found that around 2/3rd of the students were consuming less fibre (Figure 3) and 41% of students were found to be consuming more amount of saturated fat (Figure 4). As shown in the picture, majority of them consume unsaturated fat in an acceptable range (Figure 5). Waist circumference correlated positively with saturated fat intake and negatively with dietary fibre and unsaturated fat intake (Figure 6).
DISCUSSION & CONCLUSION

According to our study, majority of the students were in overweight category and having a waist circumference with high risk category. Our results are in line with many previous studies conducted around the world on University students. The higher incidence of overweight and obesity among the students of RAKMHSU may be attributed to high consumption of saturated fat and low dietary fibre intake. Previous studies have shown that dietary pattern characterised by high consumption of fibre rich foods like vegetables, fruits, poultry, fish, low-fat dairy products, whole grains, nuts, and olives are associated with lower risk of central obesity and hypertension, while dietary patterns with high amounts of saturated fat containing foods like red meat, egg, butter, high fat dairy products, hydrogenated fats, pizza, and soft drinks are associated with increased risk of these conditions.

There was negative correlation between fibre intake and waist circumference. This clearly indicates that the low fibre diet increases the absorption of fat and carbohydrates resulting in increased incidence of high risk waist circumference and overweight in these students. Our study results were in line with previous studies, which showed that consuming a diet high in fibre and low in saturated fat was associated with smaller gains in BMI and waist circumference.

The high saturated fat and low fibre consumption are the added risk factors for obesity along with genetic factors and physical inactivity in these students. The stress related to medical course itself might have contributed for over eating (fast food-rich in saturated fat and low fibre) and gain weight. Because foods are not consumed in isolation, dietary pattern research based on natural eating behaviour may be useful in understanding dietary causes of obesity and in helping individuals trying to control their weight. In conclusion, health science education is stressful throughout the whole course of training. The amount of material to be absorbed, social isolation, examination pressure can lead to psychological stress which can cause increased fast food consumption, skipping of diet, and lack of physical activity can gradually lead to obesity.

REFERENCES