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Abstract

Background: Underweight is a term describing a human whose body weight is considered too low to be healthy. Underweight is associated with negative health consequences, such as nutritional deficiency, osteoporosis, and unfavorable pregnancy outcomes in women of childbearing age. Several studies were carried out in Saudi Arabia to study the prevalence of overweight or obesity among women, and ignored underweight. Objective: This study was designed to find out the prevalence of underweight and slimness among young Saudi female students and describes its relation with dietary habits, blood pressure and socio-demographic differentials. Methodology: This study was carried out on 220 female students aged 18 to 24 years were chosen from, Taibah University., Al Madinah Al Munawwarah, KSA, then classified according to BMI into fifth categories; Very severely underweight (<15 kg/m2); severely underweight (15 to 16 kg/m2); underweight (16 to 18.5 kg/m2); normal weight (18.5 to 25kg/m2); and overweight (>25kg/m2). All normal, obese, and overweight girls were excluded from the study that carried out on underweight girls (150 females). Data socioeconomic status, health history, dietary habits, anthropometric measurements, and blood pressure measurement were collected. Results: the result showed that 3.2% of studied girls were suffering from very severely underweight, 5.9% were severely underweight, while the most of girls were underweight 59.1%, 19.5% had normal weight and 12.3% were overweight. Most of girls 97.3% of them were age between 18 – 24 years, also 42% of

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girls were in the second academic year and 85.3% of girls were single. While most of girls 79.3% were no suffering from diseases, while about 20.7% of girls were suffering from diseases including; anemia, tuberculosis, diabetes mellitus and osteoporosis. On the other hand 70% of subjects were desired systolic BP (90 – 119 mmHg) and also 72% of subjects were desired diastolic BP (60 – 79 mmHg). As for bad dietary habits were like eating one meal per day, not r eating breakfast, use traditional method (Mesabek) in cooking and low rates of milk consumption, meat and fruits and vegetables daily. In conclusion: High percentage of females suffering from underweight, most of them were from low socioeconomic class, and they have some bad food habits that may worsen their status and could be at risk for deficiencies of essential nutrients, also blood pressure measurements of girls were at normal ranges. This study recommended promotion of health eating, habits and physical activity.

Key word: Underweight, slimness, blood pressure, dietary habits, body mass index, university, Saudi female students.

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INTRODUCTION

Although Saudi Arabia has high food availability, yet some degree of malnutrition and diet related chronic diseases are prevalent. The recent rapid changes in lifestyle and dietary habits have led to great changes in dietary pattern. (Khan, 2012). Some degree of malnutrition in pre-school children and increasing trends in diet-related chronic diseases in other population groups due to imbalance of diet; sedentary lifestyle and ignorance have been reported (Katzmarzyk and Jenssen , 2004).

Like overweight or obesity that known to be associated with an increased risk of chronic diseases such as; type 2 diabetes , hypertension, menstrual abnormalities, psychosocial dysfunction, cardiovascular disease, arthritis, Pickwickian syndrome, gout, gallbladder disease, digestive disease, cancer, respiratory dysfunction, diverticular disease, various skin conditions, and overall mortality. (Wilson et al., 2002; Calle and Thun, 2004). Of these conditions, hypertension may be the most closely linked to obesity, and its

prevalence appears to increase as the prevalence of obesity increase (Jee et al., 2006). Obese subjects are at an increased risk of becoming risk of becoming hypertensive and several studies have shown a significantly higher prevalence of hypertension in obese individuals (Dustan , 1991; Staessen et al., 1998). This has a special implication as it predisposes to cardiovascular damage and atherogenic cardiovascular diseases (Kannel, 2000 ; Licata et al., 1999). Hence obesity is a major risk factor for hypertension, that itself is a direct cause of premature cardiovascular morbidity and mortality. (Dustan, 1991; Mikhail et al., 1999). In an extensive investigation conducted in different regions of Saudi Arabia we observed that 13% of Saudi females were in the obese groups with a body mass index (BMI) of 30 or more (El-Hamzmi and Warsy, 1997).

Underweight is a term describing a human whose body weight is considered too low to be healthy. The definition usually refers to people with a body (BMI) of less than 18.5 (National Heart, Lung and Blood Institute, 2012) or a weight 15% to 20% below that normal for their age and height group (Mahan, 2000). Underweight is also associated with negative health consequences, such as nutritional deficiency, osteoporosis, and unfavorable pregnancy outcomes in women of childbearing age. As in obesity, underweight is also an important risk factor to increased mortality risk (Tsugane et al., 2002). It seems that the high prevalence of overweight and obesity resulted in a change in the concept of an ideal body image from the overweight female to that of the slim figure especially with advancing education (Iman, 2007).

Underweight and unintentional weight loss can be caused by; an intake insufficient in quantity to meet activity needs; excessive activity such as in the case of compulsive athletes in training; poor absorption and metabolism of the consumed; a wasting disease such as cancer or hyperthyroidism that increases the metabolic rate and energy needs; and psychological or emotional stress (Mahan and Escott-Stump, 2008; Hays, 2006). Malnutrition contributes to approximately 60% of the child death. Despite the obvious impact of malnutrition on global health, it does capture the attention of policy-makers and lacks appropriate resources (WHO, 2006).

Many studies were carried out on Saudi population to find out the prevalence of obesity and overweight; one epidemiological study (Al-Nuaim et al., 2012) found that obesity was prevalent among 19.1% of males and 17.7% of females. Al-Othaimeen et al., (2007) found that obesity was prevalent among 14.2 %of males and 23.6% of females. A study carried out. Moreover Musaigar (2004) in his review article mentioned that the prevalence of obesity among unemployed women in Saudi Arabia was 79% and 53% among employed women.

Most of studies carried out in Saudi Arabia studied overweight or obesity among women, and ignored underweight. While studies regarding desire for slimness in young women are form Western societies. Therefore and in accordance with the result of other studies, the objective of the present study was find out the prevalence of underweight and slimness among young Saudi female students and describe its relation with dietary habits and blood pressure.

AIM OF STUDY

The study was aimed to find out the prevalence of underweight and slimness among Saudi female students and its relation with dietary habits and blood pressure.

SUBJECTS AND METHODS

This study was carried out on 220 female students chosen from food science department of College of Family Sciences for Girls, Taibah University., Al Madinah Al Munawwarah, KSA.

1. Experimental Design:

Body weights and heights were measured and BMI were calculated. The students were classified according to BMI into fifth categories; Very severely underweight (<15 kg/m2); severely underweight (15 to 16 kg/m2); underweight (16 to 18.5 kg/m2); normal weight (18.5 to 25kg/m2); and overweight (>25kg/m2). All normal, obese, and overweight girls were excluded from the study that carried out on underweight girls (150 females).

2. Data Collection:

Data were collected using self-administered questionnaire consisting of socio-demographic, health history, and dietary habits, anthropometric and blood pressure measurements.

2.1. Socioeconomic Status:

Data about age, academic year, marital status, family income and family size were done according to Park and Park, (1979).

2.2. Health History:

Data include current health status of subjects and their parents, Activity in thyroid gland, Nervous and Psychological stress, Dizziness and Vertigo, Anorexia and Causes of Anorexia.

2.3. Dietary Habits:

Data about number of meals, eating breakfast, places of eating it, preferred foods and cooking method and some food items consumptions were collected.

3. Anthropometric Measurements:

Weight and height were measured with the subjects wearing light clothing, without shoes and recorded to the nearest 0.1 kg, and 0.1 cm, respectively. Arm circumference was recorded according to (Kuczmarski et al., 2000).

Body mass index (BMI) was determined based upon the established World Health Organization (WHO 1995) international anthropometrical references. Very severely underweight is defined as BMI < 15 kg/m2 severely underweight BMI ranges from 15 to less than 16 kg/m2. Underweight is considered between 16 to less than 18.5 kg/m2 According to (Bellizzi and Dietz, 1999).

4. Blood pressure Measurement:

Blood pressure was measured using a sphygmomanometer according to Booth, 1977. Blood pressure values were recorded as Systolic and Diastolic pressure in millimetres of mercury mmHg. Blood pressures were categorized into three groups; low (hypotension) values < 90/60 or lower,

normal (desired) values above 90/60 and below 130/80 (Prehypertension), and high (hypertension) values 140/90 or higher (Chobanian et al., 2003; American Heart Association, 2011).

5. Statistical Analysis:

Data were analyzed using statistical for social science (SPSS) program, version 16.0. (SPSS, 1998).

RESULTS

Based on BMI classification, table (1) showed that distribution of studied sample, 7 (3.2%) of studied girls were suffering from very severely underweight, and 13 (5.9%) suffered from severely underweight, while the most of girls were suffered from underweight 130 (59.1%), and 43 (19.5%) had normal weight, finally 27 (12.3%) suffered from overweight. As mentioned previously all girls with normal and overweight were excluded from the study.

Table (2) shows demographic characteristic of the study sample, the total number of study participants amounted to 150 females; most of them were enrolled at the second education year 42% with mean age of 20.46 ± 2.38 years. The majority of students were single, 128 (85.3%), while the married students were 22 (14.7%). As for number of children for married students, about 7 (31.8%) of students no had children, whereas 8 (36.3%) of the married students had one children, also about 4 (18.2%) of the married students had two children, and about 3 (13.7%) of the married students had more than three children. Moreover, about 15 (10%) of students had family income less than 3000 Saudi Riyal, while the majority of students had family income between 5000 to 7000 SR ,101 (67.3%), only 34 (22.4%) of the girls had family income more than 7000 SR.

Table (3) demonstrates Anthropometric measurements of the study sample, the majority of students were recorded weights between 35 to 45 kg, 118 (78.6%), and about 4 (2.7%) of the students were less than 35 kg, while 28 (18.7%) of the students were more than 45 kg, with mean value of weight 42.20 ± 4.10 kg for all study sample. On the other hand, the most of students were recorded height more than 155 cm, 103 (68.7%), and 44

(29.3%) of them were between 145 to 155 cm, and few subjects were recorded less than 145 cm, 3 (2%), with mean value of height 157.50 ± 6.10 cm for all study sample. As for arm circumference, the most of students were recorded between 20 to 25 cm 124 (82.7%), and 20 (13.3%) of the girls were less than 20 cm, while a few subjects were more than 25 cm 6 (4%), with mean value of arm circumference 21.94 ± 2.19 cm for all study sample.

Table (4) demonstrates blood pressure measurements of the study sample , the majority of students were recorded normal values of systolic BP between 90 to 119 mmHg, 105 (70%), and about 15 (10%) of the students were suffering from hypotension , less than 90 mmHg, while 30 (20%) of the students were between 120 to 139 mmHg as hypertension, with mean value of systolic BP 112.70 ± 11.97 mmHg for all study sample On the other hand, , the majority of students were recorded normal values of diastolic BP between 60 to 79 mmHg, 108 (72%), and about 34 (22.7%) of the students were suffering from hypertension between 80 to 89 mmHg, while 8 (5.3%) of the students were less than 60 mmHg as hypotension , with mean value of systolic BP 74.65 ± 10.67mmHg for all study sample.

Table (5) shows health history of the study sample, the total number of study participants amounted to 150 females; most of them were not suffering from diseases 119 (79.3%), while about 31(20.7%) of girls were suffering from diseases most of them were suffering from anemia 16 (51.6%), and 4 (12.9%) of them suffering from tuberculosis, and 3 (9.6%) of them suffering from Diabetes mellitus and colon, while 5 (16.1%) of them suffering from others disease include; peptic ulcer, osteoporosis skin diseases. As for activity in thyroid gland, the most of girls did not have activity in thyroid gland 137 (91.3%), while 13 (8.7%) of them suffering from activity in gland. On the other hand, the students were characterized in mood nervous recorded 81 (54%), and about 69 (46%) of the students were not nervous.

The same table also illustrates, the majority of girls were not suffering from psychological stress 106 (70.7%), while 44 (29.3%) of girls suffering

from that. The subjects were suffering from dizziness and vertigo, 85 (56.7%), and about 44 (29.3%) of subjects were not suffering from that. The majority of girls were feeling dizziness and vertigo during waking and effort, 31 (36.4%), also 11 (12.9%) of them were feeling dizziness and vertigo during hunger, while 21 (24.7%) of them were this feeling during other include; exercise and the menstrual cycle. As for anorexia, the most of girls were suffering from anorexia (lack of appetite) 116 (77.3%), while 34 (22.7%) of them were not suffering from that. Regarding causes of anorexia, the majority of girls were not feeling hungry 42 (36.2%) and about 33 (28.4%) of them did not eating because busyness, while 16 (13.7%) of them because of sleep and laziness, finally 33 (28.4%) of them did not eating because others factors include; stress, lack of knowledge and anxiety. It could be noticed from table (5) that the majority of girl's parents were suffering from underweight and slimness 95 (63.3%), while about 55 (36.7%) of a girl's parents were not suffering from that.

Table (6) dietary habits of the study sample, the majority of girls reported eating two meals daily 89 (59.3%), and about 55 (36.7%) of them reported eating three meals daily, while 6 (4%) of students reported eating one meal per day. It is clear from table (6) the majority of girls reported eating breakfast 105 (70%), and about 45 (30%) of them did not reported eating breakfast. On the other hand 47 (44.7%) of girls reported eating breakfast at home, while 58 (55.3%) of them reported eating breakfast at college. Regarding preferred foods, the majority of girls were preferred sweet foods 84(56%), while about 66 (44%) of them were preferred salty foods. As for preferred cooking method, the majority of subjects were preferred traditional method (Mesabek) 47 (31.3%), while about 25 (16.7%) of them were preferred boiled or stir-fried methods, and 35 (23.3%) of the girls were preferred grilled method, finally 43 (28.7%) of them preferred baking method.

Table (7) consumption of different food item of the study sample, the majority of girls reported drinking milk 121 (80.7%), and about 29 (19.3%) of them did not reported drinking milk. On the other hand 138 (44.7%) of girls reported eating meat, while 12 (8%) of them did not reported eating

meat. Also the most of students reported eating fruits and vegetables 147 (98%), while about 3 (2%) of them did not reported eating fruits and vegetables.

Frequency of eating different food item is presented in table (8). The present sample demonstrated consumption of milk, meat and fruits and vegetables once daily were, 28 (23.1%), 25 (18.1) % and 34 (22.9%) respectively. While the present sample reported consumption of milk, meat and fruits and vegetables twice or more per day were, 3(2.4%), 1 (0.72%) and 25 (16.9%) respectively. Also the students reported consumption of milk, meat and fruits and vegetables Once weekly were, 53(43.9%), 21 (15.2%) and 15 (10.1%) respectively. While the subjects demonstrated consumption of milk, meat and fruits and vegetables twice per week were, 27 (22.4%), 56 (40.6%) and 29 (19.6%) respectively. Finally the subjects reported consumption of milk, meat and fruits and vegetables Three times per week were, 10 (8.2%), 35 (25.4%) and 45 (30.5%) respectively.

DISCUSSION

The results indicated that 59.1% of girls were underweight and 12.3% of girls were overweight, this percentage nearly with Iman, (2007) who observed that 43% of students girls suffered from underweight and 19% of them were overweight, although this percentage seemed higher than other Saudi studies Abalkhail et al., (2002), but it revealed the common attitude of the university girls, where most of them try avoid obesity and its complications. This observation primarily observed by Al Bedwee et al., (2004) who observed that the Tunisian university girls tend to be thin. Moreover, most of studied subjects were studying nutrition and know how to limit their intake from high calorie foods. This result emphasis the concepts of Rasheed (1998) who observed that a change in the concept of an ideal body image from the overweight female to that of the slim figure accompanied advancing education. In conclusion, women with higher educational level were more likely to favor slimness as an ideal.

Most of girls 97.3% of them were age between 18 – 24 years, also 42% of girls were in the second academic year and 85.3% of girls were

single, this results agreed with Iman (2007), who observed that married subjects of university girls were heavier than the unmarried subjects.

It could be concluded from table (4) that most of subjects 70% of them were desired systolic BP (90 – 119 mmHg) and also 72% of subjects were desired diastolic BP (60 – 79 mmHg) this results agreed with El-Hazmi and Arjumand, (2001) who were confirmed that the non-obese males and females the prevalence of hypertension was 4.8% and 2.8%. While in the obese group the prevalence was almost 1.6 times higher in the males (8%) and 3.52 times higher (8%) in the female obese. Obesity and hypertension are closely associated multifactorial disorders and studies in different population groups have confirmed that the prevalence of hypertension increases significantly in the obese (Kastarinen et al., 2000, Mikhail et al., 1999), also who were e observed that the prevalence of hypertension is higher in the obese than the non-obese and the prevalence in the obese females is more than the obese males in the Saudi population. Also it can be observed from table (9) the correlation matrix between blood pressure and anthropometric measurements, there were no significant differences between systolic BP, diastolic BP and body mass index and weight.

Most of girls 79.3% were no suffering from diseases, while about 20.7% of girls were suffering from diseases including; anemia, tuberculosis, diabetes mellitus and osteoporosis Tsugane et al., (2002) who reported that underweight is associated with negative health consequences, such as nutritional deficiency, depression are moodiness, tiredness, an overpowering urge to sleep all day, inability to do simple daily tasks. Also 63.3% of girl's parents were suffering from underweight and slimness this results supported with Mahan and Escott-Stump (2008) who reported that underweight can be caused by genetic and heredity factors.

It could be concluded from Table (6) that bad dietary habits like eating one meal per day, not r eating breakfast, use traditional method (Mesabek) in cooking and low rates of milk consumption, meat and fruits and vegetables once daily, also Iman (2007) reported that food habits like eating cafeteria food daily drinking tea after meals directly, and drinking coffee

before breakfast were more prevalent among underweight, while normal subjects share or exceed them in other bad food habits. However, the increasing westernization and urbanization occurring in most countries around the world is associated with changes in the dietary habits and types of consumed foods and drinks. This bad food habits were prevalent among adolescents and young adults in the Gulf area.

The nutritional problems in Saudi Arabia are mainly due to a change in food habits, illiteracy and ignorance, rather than a shortage of food supply or low income. Therefore, it is essential for all people to eat a balanced diet which will provide the dietary requirements of all nutrients. Perhaps behavior modification with respect to food intake will be effective in the treatment of underweight (Simopoulos, 1985).

CONCLUSION

The combined prevalence of underweight and slimness among Saudi female students is increasing and comparable to those found in the developed countries. Less healthy dietary habits, poor food choices and socio-economic differentials may be associated with the problem of underweight and slimness including Saudi Female Students in Taibah University.

RECOMMENDATIONS

Those involved in underweight prevention may use these findings to implements university- based food programs and nutritional health education messages with incorporation of skills for proper food choices. Emphasizing the importance of breakfast, and the hazards of frequent eating out and the importance of certain food items in prevention of underweight to girls. Further studies involving females and other possible risk factors of underweight are needed.

Table (1): Distribution of the study sample (n = 220) according to BMI

Body mass index BMI classification (kg/m2)	NO.	%
Very severely underweight (< 15)	7	3.2
Severely underweight (15 – 16)	13	5.9
Underweight (>16 - 18.5)	130	59.1
Normal weight (>18.5 - 25)	43	19.5
Overweight (> 25)	27	12.3
Total	220	100

Table (2): Demographic characteristic of the study sample (n = 150)

Variables	NO.	%
Age groups (years)	Mean ± SD = 20.46 ± 2.38	
18 – 24	146	97.3
> 24	4	2.7
Total	150	100
Academic year		
First year	45	30
Second year	63	42
Third year	24	18
Fourth year	15	10
Total	150	100
Marital status		
Single	128	85.3
Married	22	14.7
Total	150	100
Number of children		
No	7	31.8
One child	8	36.3
Two children	4	18.2
> 3 children	3	13.7
Total	22	100
Family income (SR)		
Low (< 3000)	15	10
Medium (5000 - 7000)	101	67.3
High (> 7000)	34	22.7
Total	150	100

Table (3): Anthropometric measurements of the study sample (n = 150)

Variables	NO.	%
Weight groups (kg) Mean ± SD = 42.20 ± 4.10 kg		
< 35	4	2.7
35 - 45	118	78.6
> 45	28	18.7
Total	150	100
Height groups (cm) Mean ± SD = 157.50 ± 6.10 cm		
< 145	3	2
145 - 155	44	29.3
> 155	103	68.7
Total	150	100
Arm Circumference groups (cm) Mean ± SD = 21.94 ± 2.19 cm		
< 20	20	13.3
20 - 25	124	82.7
> 25	6	4
Total	150	100

Table (4): Blood pressure measurements of the study sample (n = 150)

Blood pressure classification	NO.	%
Systolic BP (mmHg) Mean ± SD = 112.70 ± 11.97		
Hypotension (< 90)	15	10
Desired (90 – 119)	105	70
Prehypertension (120 – 139)	30	20
Total	150	100
Diastolic BP (mmHg) Mean ± SD = 74.65 ± 10.67		
Hypotension (< 60)	8	5.3
Desired (60 – 79)	108	72
Prehypertension (80 – 89)	34	22.7
Total	150	100

Table (5): Health history of the study sample (n = 150)

Variables	NO.	%
Suffering from diseases		
Yes	31	20.7
No	119	79.3
Total	150	100
Types of disease		
Diabetes mellitus	3	9.6
Colon	3	9.6
Tuberculosis	4	12.9
Anemia	16	51.6
Others	5	16.1
Total	31	100
Activity in thyroid gland		
Yes	13	8.7
No	137	91.3
Total	150	100
Nervous		
Yes	81	54
No	69	46
Total	150	100
Psychological stress		
Yes	44	29.3
No	106	70.7
Total	150	100
Dizziness and Vertigo		
Yes	85	56.7
No	65	43.3
Total	150	100
Time of Dizziness and Vertigo		
Waking	31	36.4
Hunger	11	12.9
Effort	31	36.4
Others	21	24.7
Total	85	100
Anorexia (lack of appetite)		
Yes	116	77.3
No	34	22.7
Total	150	100
Causes of Anorexia (lack of appetite)		
Not feeling hungry	42	36.2
Busyness	25	21.5
Sleep and laziness	16	13.7
Others	33	28.4
Total	116	100
A parent suffering from underweight or slimness		
Yes	95	63.3
No	55	36.7
Total	150	100

Table (6): Dietary habits of the study sample (n = 150)

Variables	NO.	%
No. of main meals / day		
One meal	89	59.3
Two meal	55	36.7
Three meal	6	4
Total	150	100
Eating breakfast		
Yes	105	70
No	45	30
Total	150	100
Place of eating breakfast		
At home	47	44.7
At college	58	55.3
Total	105	100
Preferred foods		
Sweet foods	84	56
Salty foods	66	44
Total	150	100
Preferred cooking method		
Traditional (Mesabek)	47	31.3
Boiled or stir-fried	25	16.7
Grilled	35	23.3
Baking	43	28.7
Total	150	100

Table (7): Consumption of different food item of the study sample (n = 150)

Food Items	NO.	%
Drinking milk		
Yes	121	80.7
No	29	19.3
Total	150	100
Eating meat		
Yes	138	92
No	12	8
Total	150	100
Eating fruits and vegetables		
Yes	147	98
No	3	2
Total	150	100

Table (8): Consumption frequency of different food item of the study sample (n = 150)

Food Items	Once/ day		Twice or more / day		Once/ week		Twice/ week		Three times / week	
	No.	%	No.	%	No.	%	No.	%	No.	%
Milk	28	23.1	3	2.4	53	43.9	27	22.4	10	8.2
Meat	25	18.1	1	0.72	21	15.2	56	40.6	35	25.4
fruits and Vegetables	34	22.9	25	16.9	15	10.1	29	19.6	45	30.5

Table (9): Correlation matrix between blood pressure and anthropometric measurements

Blood pressure	Correlation	Weight	Height	BMI	Arm circumference
Systolic BP	Pearson correlation Sig. (2-tailed) N	−.154 .059 150	−.048 .557 150	.018 .830 150	−.140 .087 150
Distolic BP	Pearson correlation Sig. (2-tailed) N	−.036 .664 150	−.165* .044 150	.127 .121 150	.014 .865 150

** correlation is significant at the 0.01 level (2-tailed).

* correlation is significant at the 0.05 level (2-tailed).

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نقص الوزن والنحافة وعلاقتهم بالعادات الغذائية وضغط الدم بين الطالبات السعوديات بجامعة طيبة

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الملخص العربى

مقدمة :

نقص الوزن هو مصطلح يصف الشخص الذي يعتبر وزنه أقل بكثير أو قليل عن وزنه الصحى. يرتبط نقص الوزن بالعديد من العواقب الصحية السلبية مثل نقص التغذية ، وهشاشة العظام ، و نتائج الحمل غير الجيدة عند النساء في سن الإنجاب . وقد أجري العديد فى الدراسات في المملكة العربية السعودية لدراسة انتشار زيادة الوزن أو السمنة بين النساء ، مع تجاهل نقص الوزن. الهدف : تم تصميم هذه الدراسة لمعرفة مدى انتشار نقص الوزن والنحافة بين الطالبات السعوديات و العلاقة بين العادات الغذائية وضغط الدم والعوامل الاجتماعية و الديموغرافية. المنهجية: أجريت هذه الدراسة على ٢٢٠ طالبة تتراوح أعمارهن ١٨ إلى ٢٤ سنة ، وقد تم اختيارهن من جامعة طيبة ، المدينة المنورة ، المملكة العربية السعودية ، وتم تقسيمهن وفقا لمؤشر كتلة الجسم إلى خمس فئات هى ؛ نقص حاد جدا في الوزن (< ١٥ كجم/م٢) ؛ نقص حاد في الوزن (١٥- ١٦ كجم/م٢) ؛ نقص الوزن (١٦- ١٨,٥ كجم/م٢) ؛ وزن مثالى (١٨,٥ - ٢٥ كجم/م٢) ؛ وزيادة الوزن (> ٢٥ كجم/م٢) . تم استبعاد جميع الفتيات اللاتى أوزانهن مثالية أو يعانين من زيادة الوزن أوالسمنة، وبهذا فقد تمت الدراسة على الفتيات اللاتى يعانين من نقص الوزن (١٥٠ طالبة) . كما تم جمع البيانات الاجتماعية والاقتصادية ، والتاريخ الصحي ، والعادات الغذائية، و القياسات الجسمية، و ضغط الدم. النتائج : أظهرت النتيجة أن ٣,٢ ٪ من الفتيات التى أجريت عليهن الدراسة كانوا يعانين من نقص حاد جدا في الوزن ، و ٥,٩ ٪ نقص حاد في الوزن ، في حين أن كانت معظم الفتيات اللاتى يعانين من نقص الوزن ٥٩,١ ٪ ، و كانت ١٩,٥٪ وزن مثالى و ١٢,٣٪ يعانين من زيادة الوزن. كما كانت معظم الفتيات ٩٧,٣ ٪ منهم أعمارهن بين ١٨ - ٢٤ عاما، و ٤٢٪ من الفتيات في العام الدراسي الثاني من الجامعة و كانت ٨٥,٣ ٪ من الفتيات عازبات. بلغت نسبة الفتيات الاتى لا يعانين من أمراض ٧٩,٣ ٪ ، بينما كانت حوالي ٢٠,٧ ٪ من الفتيات يعانين من أمراض شملت على ؛ فقر الدم ، والسل ، وداء السكري، وهشاشة العظام. من ناحية أخرى كانت نسبة الفتيات ٧٠ ٪ اللاتى لديهن الضغط الانقباضي فى الحدود الطبيعية (٩٠- ١١٩ مم زئبق) ، وكذلك كانت ٧٢ ٪ من الفتيات لديهن الضغط الانبساطي فى الحدود الطبيعية (٦٠- ٧٩ مم زئبق). أما بالنسبة للعادات الغذائية السيئة كانت شائعة بين الفتيات مثل تناول وجبة واحدة في اليوم ، وعدم تناول وجبة الإفطار ، وإستخدام

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طريقة التسبيك التقليدية في الطبخ و انخفاض معدلات استهلاك الحليب واللحوم و الفواكه و الخضروات يوميا. ختاما: فإن ارتفاع نسبة الاناث اللاتى يعانون من النحافة معظمهم من طبقة اجتماعية متوسطة اقتصادياً ولها بعض العادات الغذائية السيئة التى قد تفاقم حالتهم الصحية ويمكن أن تكون فى خطر نقص المغذيات الأساسية وكانت قيم ضغط الدم لديهن فى الحدود الطبيعية، توصى هذه الدراسة بأهمية إنماء الوعى بالعادات الغذائية الصحية وممارسة الرياضة لدى طالبات الجامعة.

الكلمات الدالة (المفتاحية): نقص الوزن، النحافة، ضغط الدم، العادات الغذائية، مؤشر كتلة الجسم، الجامعة، الطالبات السعوديات.

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