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Prevalence of Anxiety in Adults Obese in Baghdad (Obesity Center) According to Standard Scoring System (Beck Anxiety Inventory)

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Abstract
Objectives: The purpose of this study was to determine the extent to which anxiety and obesity-related, and whether it is in fact the issue of poor eating habits, to determine the prevalence of anxiety among the topics of people seeking to obesity and the study of anxiety and social relationship symptoms of anxiety with age treatment, and the duration of obesity , body mass index (BMI) and binge eating (BE).
Study DesignThe study is a cross-sectional descriptive study conducted in Baghdad city during the period from November 2014 to November 2015, which assess mental health and psychosocial situation patient Committed to diet , BMI, physical and socio demographics for both obese males and females who live in the Baghdad city and attending Obesity research and therapy center in Alkindy college of Baghdad university medicine The sample of the study is a judgmental sample .The data were collected during a four months period since beginning of December 2014 to the end of March 2015.The total number of patient involved in the study is (320) Person, 20 were selected for a pilot study which were excluded from the main sample (16) patients from female and (four) males refuse to participate in the study .and remain(300) sample which classificated to females It is the largest in the sample estimates 74% and males It is the smallest in the sample estimates26%.
Setting of the Study
The setting of the study in Baghdad city.Baghdad University.Kindy College of Medicine Obesity research and therapy center.
Subjects and Methods
This study included both patients male and female aged 20-60, living in the Baghdad city, the data were gathered through structured direct interview technique and developed questionnaire that include many questions about personal and demographic information, health status, psychosocial status, and food intake method .measure body mass index (BMI) (weight[kg]/height[m2]), through measuring height , weight and waist. In this study during the interview the questions about anxiety Patients were asked to clarify the concern has to do with weight gain and not worry in general show that the age group of 20-40yrs categories concern linked to the appearance of the body shape change either age group above 40yrs is increasing concern concurrently chronic diseases related to obese such as high blood pressure and joint pain , take period asked to each patient about anxiety only 15 minutes knowing that the data collection was all days of the week except Friday and Saturday begin at 8:30 A.m and continue until 1:30 p.m, The questionnaire are standard only Translated is divided into two parts.
Part 1: primary information, which includes personal and social (demographic) information, and also indirect information related to the study. Personal and demographic information.
Part 2: specialized information which includes four domains and illustrated as follows: Health status, Psychological status, and physical activity and Food intake.
Results
The results indicated that the majority of study sample (74%) were females and the remaining were males (26%), while regarding age group the studied sample are distributing similarly at first of the three groups, and they are accounted (87%), Marital Status, married were reported vast majority of the studied sample, and they are accounted (77.7%). With respect "Occupation", the largest part of the studied sample are Unemployed and they are accounted (67%). Finally, quarter of the studied sample had high educational level, and they are accounted (24.7%), while whom had low educational levels, such that primary, intermediate, and secondary schools are accounted (60.67%), Anthropometric results the majority of obese had reported with third class, and they are accounted (53%),while Waist circumference results the majority of waist had reported with Type-1, and they are

accounted (50.7%), Physical Activity majority of responding are reported with moderate group, and they are accounted (53.25%). assessments of different scaling system (BAI) among the studied sample Results that majority responding having a moderate assessments, and they are accounted (52.3%). Results ordered statistics concerning defected numbers of scaling system (BAI) among studied of obesity sample prevalence (> 2 : 3) times, since mean value of defected individuals, item Nervous have large number defected is(271) consider order (1)while item Face Flushed has small number defected is(83) consider order(21). relationship among Beck Anxiety Inventory scoring scales (BAI) with socio-demographical, Physical Activity ,diseases related to obese having high significant in at P<0.01, Results that BMI and Waist Circumference having significant relationships with an overall assessment of scaling system BAI at P<0.05, The study was extracted workers depending on the operator and technical anaylsis, a body mass‹index and waist circumference for people who have obesity excessively and its relation to these factors scale anxiety "rate to find which factor has a strong effect statistically. As a result, it was found that the minimum impact was represented by" body mass index " , when the maximum effect represented "in waist circumference." Showing that the relationship between anxiety and obesity inverse relationship to obesity claim to anxiety and anxiety as well as cause obesity.

Conclusions

-Socio-Demographical Characteristics Variables having an conventional distribution .and that similar to who had weight . except of gender factor which shows that female has three time are suffering from obesity associated with anxiety profile in contrast of male and that might be interpreted gender impact of obesity status on female, About Eighty percent of the studied sample are recorded obese class two and three .and that might be interpreted high effectiveness of them within anxiety profile, About Fifty percent of the studied sample are recorded Waist class two and three. And that might be interpreted high effectiveness of them within anxiety profile, More than ninety percent of the studied sample are classified with low .and moderate physical activity .and that might be interpreted high effectiveness of them toward anxiety profile, The suggested results evaluation for assess impact level of mental disorders by ordered numbers of BAI domains system among studied of obese adults sample in the light of anxiety cases as a result of obesity that most of the scales recorded existence of the problem. This reflects and beyond any doubted the impact of obesity on causality of anxiety and mental disorders,Relative to subjects (waist circumferences) parameter. Sequential augmentation are seems clearly occurred at the second and third obese index and it could be indicating that (waist circumference) parameter had more reliable for studying problems of mental disorders (anxiety) better than (BMI)parameter .rather than both of them had recorded significant relationships concerning with different scaling of BAI system.

Keywords: Body mass index, Waist Circumference, Beck anxiety inventory.

Introduction:

The global data that appear in obesity is epidemic and global health problem [1]. The organization of the World Health (WHO) Describes obesity is one of the most clearly health problems, but most neglected that threaten to overwhelm both developed and less developed countries [2]. Shows that the world's population suffers from an increase in the weight more than half of them [3].Reflects the progressive age and decline of secular -related physical activity, along with ill excessive consumption of energy with the large dietary changes in spite of the neural processes to control eating. Prevalence of obesity in the world's peoples is increasing to half a billion that considered being overweight or obese (4) Obesity community health problem all over the world. The problem affects not only the developed countries; there is now a significant increase in overweight and obesity in all parts of the developing world (5). Obesity is caused by a combination of environmental generally genes and genetic. It may develop increasing as a health problem and on any age in both sexesAnxiety disorders are among the largest common emotional, mental and behavioral problems (6). There are many hypotheses about how the relationship between mental health disorders and obesity. That some researchers found that obesity can lead to mental health disorders and others have found that people who suffer from these mental disorders are more likely to be obese, another recent systematic review and meta-analysis is weak but positive. Correlation between obesity and anxiety disorders. (7) and associated with obesity also increase the risk of chronic diseases, most of which are associated with anxiety, which in turn can cause a chronic disease because of reduced compliance with treatment and / or response. (8)There are a number of mechanisms that could explain the potential association between obesity casual and common mental health disorders. While the mediator variables help explain this relationship There are many theories about the cause of obesity as lead to poor mental health in adults. This emphasis on the increase the conditions imposed and medical problems. Obesity-related motor which can have an effective impact on the psychological well-being, and can lead to anxiety, shape of the body distorted and eating disorders in the style and low self-esteem. (9)There is less research on the mechanisms that may cause adults who suffer from common mental health disorders to obesity. It has indicated that poor mental health can lead to increased appetite and unhealthy lifestyle choices. A combination of biological impact on increasing the pressure as well as the weakness of the commitment to lose weight programmers and bad thoughts, binge eating and loss of social support, may make it difficult for the person concerned to avoid weight gain. (10) That people

who suffer from repeated or chronic bouts of anxiety are at particular risk of obesity (11).

Beck Anxiety Inventory (BAI):
Which was founded by Aaron T. Beck, MD, and colleagues. It measures the severity of the concern of the individual. Focusing primarily on the physical symptoms. This test is designed to assess symptoms of anxiety in the short term. Each paragraph of the self is to clarify, physical, or symptoms associated with the pain of anxiety. Each question has the same set of four possible answer choices. This scale is a measure of self-determination for concern. It is a 21-item multiple choice inventory of self-determination, which measures the severity of anxiety in adults and adolescents. Because the items in the BAI describe the psychological and physiological symptoms, and cognitive anxiety, but not depression, anxiety can be distinguished from depression. Each paragraph of the BAI is to describe the easy of a symptoms of anxiety in one aspect of the expressed four(1) self (for example, "Unable to relax"), (2) the physiological nerve (for example, "numb or tingling "), (3) autonomic (for example," feeling hot ") or (4) relating to panic (for example," the fear of loss of control "). BAI may be less sensitive to the symptoms of secondary trauma or other medical, and more samples Sense of panic disorder than it is to the symptoms of other anxiety disorders, and may require separate rules for males, females, and more ethnically / diverse socially and economically. (12) BAI can be used to identify and assess the level of primary concern, it is used as a tool in the diagnosis, to reveal the effectiveness of the treatment as it progresses, Other advantages of the BAI fast and easy to manage, and repetition, and the distinction between symptoms of anxiety and depression, and the ability to shed light on the relationship between the mind and body for those who are trying to help reduce their anxiety, and age groups. Some researchers have suggested that the BAI may be less sensitive to the symptoms of secondary medical trauma or other, more sensitive to panic disorder than it is to the symptoms of other anxiety disorders, and may require separate rules for males, females, and more ethnically / miscellaneous samples socially and economically (13) .

Definition of Obesity:
Obesity is a complex and multifaceted situation. Distinguished by excess fat in the body. Must be seen as a chronic disorder, requires the support and follow-up care in a permanent basis, obesity has to do with many of the chronic diseases, require follow-up by health care providers. Obesity is a high amount of fat in adipose tissue or body in relation to lean body mass. Overweight refers to increased body weight in relation to height, which is then compared with the level of acceptable weight(14).

Body Mass Index:
Is a person's weight in kilograms divided by height in meters square and it is one of the wider roads commonly used to assess whether a person is overweight and therefore be subject to health problems more likely from someone who has a natural and healthy weight. It's also used to measure the prevalence of obesity and overweight among the people are used to it, for most people, it is associated with a reasonable level of fat in the body. But it is also cheap and relatively easy and non-invasive way to create a center weight. However, body mass index is just a proxy for body fat. It can be other factors such as puberty and fitness change between the body and the body mass index, obesity, and must be taken into account. Other measurements such as waist circumference and thickness of the skin can be collected refer to the person's weight status or body fatness. And it is used widely as none of these as BMI (15).

Waist Circumference:
Waist circumference is measure a reliable and simple, is associated with abdominal fat good form regardless of body mass index. It is also an independent risk factor of vascular disease and heart and the largest utility in individuals who are in regular classes block their body index with BMI> 35 kg / M2 is not necessary to measure the WC because it loses individuals worth predictive with its surroundings waist greater be more than five times the risk of several metabolic risk factors of heart, even after adjusting BMI, compared with people at (W.C) in the natural scale. As is the case with the body mass index, waist circumference should assess on a regular basis (17).

Anxiety:
Anxiety is a subjective feeling of fear, discomfort. It is linked to a range of physical manifestations and autonomy. As well as the emotional response and reasonable and normal and foreseeable risk of a potential or real. Case the mood to feelings of fear that pervades its associated often with physical symptoms that include palpitations, sweating and rapid pulse and eagerly shaking rate. It can include anxiety fear of a particular object and simple case of panic disorder and generalized anxiety disorder or post-traumatic stress disorder and social phobia, phobia obsessive-compulsive disorders. Individuals who suffer from excessive fear or anxiety disorders. Causing them to either develop compulsive rituals that reduce anxiety or avoid situations that may claim to be

concerned or when everyone is worried response to certain events and individuals with anxiety disorder have excessive feelings and unrealistic that interfere with their lives in work, school, relationships andleisureactivitiesandSocil(20).

Methodology:

Study Design:

The study is a cross-sectional descriptive study conducted in Baghdad city during the period from November 2014 to November 2015, which assess mental health and psychosocial situation patient Committed to diet , BMI, physical and socio demographics for both obese males and females attending Obesity research and therapy center in Al- kindy college of medicine.

Sample Size:

The sample of the study is (non-probability) sample which depend on the age, from (20 -60) years and both genders (males and females). The data were collected during 4months period since beginning of December 2014 to the end of March 2015.The total number of patients involved in the study is (320) Person, 20 were selected for a pilot study which were excluded from the main sample, (16) patients were female and (four) males Considered experimental sample to strengthen and enhance the interview. and remains (300) sample which were females (222) 74%, and males (78) 26%.

The setting of study The setting of the study in Baghdad city. Baghdad University Al-Kindy College of Medicine, Obesity research and therapy center.

Arrangement Administrative

The researcher made a formal request through the College of Health and Medical Technology to the (Baghdad university Al-Kindy College of Medicine, Obesity research and therapy center)for the approval of the study and facilitate task of data collection, obtained approval to conduct the study on 17/11/2014 for the Translated questionnaire based on the expert only after the presentation of questions to assistant professor Dr. Farris Abdul Kareem as an expert in internal medicine and diabetes and assistant professor Dr. Ameer al haidary, an expert in psychiatry, Faculty of medicine, University of Karbala. (Appendix A).

Subjects and Methods:

The data were gathered through structured direct interview technique and that include many questions about personal and demographic information, health status, psychosocial status, and food intake. Measure body mass index (BMI) (weight [kg] / height [m2]). Through measuring height, weight and measure waist (Appendix B). Using the World Health Organization categorizes of underweight as BMI <18.5, normal 18.5–24.9, overweight 25–29.9, obese 30–39.9 and extreme obesity>40 (21), and classify waist to men is > 94and women is > 80 with increase risk groups (18).

Height (HT):

Height measurements of the patient by standing upright, measured with a stadiometer or against a calibrated non stretchable tape attached to a vertical surface. Ideally, the person's heels, buttocks, shoulders, and head should be touching the Centimeter, and his or her eyes should be looking straight ahead. Ideally, the person should be barefoot [29]. In this study, the persons was asked before measuring the height to remove his shoes and anything covering his head, and also to stand straight and his back to the wall, ensuring simple contact with the head, shoulder, pelvis, legs, and the end of the feet with the wall to ensure the right of the measurement.

Weight(Wt):

Heavy sweaters, jackets, handbags, pocket contents, and shoes removed before the person is weighed [14]. Weight measured with digital accuratescale.

Measurement and scoring using anxiety (Beck anxiety inventory): It is a short, self administered scale which is simply scored. Each item is rated on a 4-point Likert scale. Because it is easy to administer and because data on non clinical individuals are available, the BAI may be a useful screening tool for individuals in a general medical setting In this study during the interview the questions about anxiety, patients were asked to clarify the concern has to do with weight gain and not worry in general. Taken period asked to each patient about anxiety only 15 minute. (17).

The Study Instruments

The purpose of the study to investigate the health and psychosocial status, and food intake of the persons participated in this study.

Questionnaire is divided into two parts:

Part 1: primary information, which includes personal and social (demographic) information, and also indirect information related to the study. Personal and demographic information: - this part of the questionnaire is concerned with the demographic characteristics of the persons from population through a designed sheet consisted of (7) items which included: age, gender, marital status, education, occupation, financial resources, measurement the (weight, height, waist, and BMI) some of these items were scored according to type of levels-Likert scale (18).

Part 2: specialized information which includes four domains and illustrated as follows

1-Health status consisted of (6) items which included:- history of hypertension, DM, history of blood sugar, Stroke ,arthralgia, thyroid disease, these items were scored according to two levels-Likert scale as (1) for Morbid status, (0) for Non-morbid status [19]. To identify health status, the researcher depended on medical form within the person file including diseases diagnosed, the card of chronic diseases, and structured direct interview technique.

2-Psychological status assessed by Beck Anxiety Inventory:

The Beck Anxiety Inventory consisted of (21) items which inclusive (Wobbliness in legs, Feeling hot , tingling or Numbness, Unable to relax , Fear of worst happening , lightheaded or Dizzy, Heart pounding/racing , Nervous, afraid or Terrified, Unsteady, Feeling of choking , Fear of losing control, unsteady /Shaky, Fear of dying, Difficulty in breathing , Hands trembling, Scared , Hot/cold sweats , Indigestion , Faint / lightheaded , Face flushed)these items were scored according to four levels-Likert scale as (0) for Not At All, (1) for Mildly, (2) for Moderately, and(3) for Severely. Scoring - Sum each column. Then sum the column totals to achieve a grand score. Write that score as result. Questionnaire was administered. It took approximately 15 minutes to complete. Interpretation.Sum between 0 – 21 indicates very low anxiety,Sum between 22 – 35 indicates moderate anxiety andSum that Overcomes 36 is a possible cause for severely anxiety (18)

3-physical activity : consisted of (3) items which included:- low (able but not have a regular routine , unable by severe joint pain, shortness of breath, and wheelchair/bed) moderated (able to walk , able Trot), sever (able I swim, able to Bicycle use, able to lift weights,) these items were scored according to type levels-Likert scale (23).

4-Food intake consisted of (5) items which included: - (daily eating pattern Eating snacks just before bedtime, eat breakfast every day, eat lunch every day, eat Dinner every day, Do you drink Juice and pop. these items used as a screening instrument. were scored according to type the scale As for the drink juices and snacks are Yes (1) No (2) but the main meals Yes (1) No (0).

Results: presents the findings of data analysis systematically in tables and these correspond with the objectives of this, and as follows.

Table (1) shows the distribution of studied "Socio-Demographical Characteristics" variables (SDCv) with comparisons significant. The results has indicated that there has been a highly significant differences at P<0.01 among different groups of the studied (SDCv). Relative to subject's "Age Groups" studied sample are distributing similarly at first of the three groups, and they are accounted 261(87%), with mean and standard deviation 36.77 yrs., and 10.16 yrs. respectively. Female gender are reported vast majority, and accounted 222(74%), while leftover male gender, and they are accounted 78(26%). On the subject of "Marital Status", married were reported vast majority of the studied sample, and they are accounted 233(77.7%). With respect "Occupation", the largest part of the studied sample are, Unemployed and they are accounted 171(67%). Finally, quarter of the studied sample had high educational level, and they are accounted 74(24.7%), while whom had low educational levels, such that primary, intermediate, and secondary schools are accounted 182(60.67%), then finally read and write and illiterate had accounted 29(9.7%), and 15(5%) respectively.

Table (1): Distribution of the studied sample according to "Socio-Demographical Characteristics" variables (SDCv) with comparison significant

SDCv.	Groups	No.	%	C.S. (*) [P-value]
Age Groups Yrs.	20 -29	82	27.3	χ^2= 236.7 P=0.000 (HS)
	30 -39	93	31.0	
	40 -49	86	28.7	
	50 – 60	39	13.0	
	Mean ± SD	36.77 ± 10.16		
Gender	Female	222	74	P=0.000 (HS)
	Male	78	26	
Marital Status	Single	63	21	χ^2= 236.7 P=0.000 (HS)
	Married	233	77.7	
	Separated	2	0.7	
	Divorced	2	0.7	
Occupation	Student	14	4.7	χ^2= 236.7 P=0.000 (HS)
	Unemployed	201	67	
	Retired	2	0.7	
	Public Sector	4	1.3	
	Private Sector	79	26.3	
Education Level	Illiterate	15	5	χ^2= 236.7 P=0.000 (HS)
	Read & write	29	9.7	
	Primary	62	20.7	
	Intermediate	74	24.7	
	Secondary	46	15.3	
	(Institute or College)	74	24.7	

HS: Highly Sig. at P<0.01; The Statistical Hypotheses are Based on Chi-Square and Binomial tests

Table (2)shows observed frequencies, percents and Cumulative percents of "Body Mass Index - (BMI)", with comparison significant. Results are presented through applying three levels (Obese – 1, Obese – 2, and Obese – 3) in light of classes intervals [(30 – 34), (35 – 39),and (≥ 40)], kg/m2 respectively. The results has indicated that highly significant different at P<0.01 are accounted among different groups, and majority of obese had reported with third class, and they are accounted 159(53%), while second class are accounted 80(26.7%), and finally first class are recorded 61(20.3%).

Table (2): Distribution of Anthropometric Aspects (BMI) in the studied groups with Comparisons Significant

Parameter	Groups	No.	%	C.S. (*) [P-value]
BMI	Obese – 1 (30 – 34)	61	20.3	χ^2= 236.7 P=0.000 (HS)
	Obese – 2 (35 – 39)	80	26.7	
	Obese – 3 (≥ 40)	159	53.0	
	Mean ± SD	41.237 ± 6.839		

HS: Highly Sig. at P<0.01; The Statistical Hypotheses are Based on Chi-Square test (*)

Table (3) shows observed frequencies, percents and Cumulative percents of "Waist Index - (WI)", with comparison significant. Results are presented through applying three levels (Type – 1, Type – 2, and Type – 3) in light of classes intervals [(83 – 114), (115 – 146) , and (147 – 176)], cm respectively.The results has indicated that highly significant different at P<0.01 are accounted among different groups, and majority of waist had reported with Type one, and they are accounted 152(50.7%), while Type Two are accounted 142(47.3%), and finally Type three are recorded 6 (2%).

Table (3): Distribution of Anthropometric Aspects (W.C) in the studied groups with Comparisons Significant

Parameter	Groups	No.	%	C.S. (*) [P-value]
Waist Circumferences	Type – 1 (83 –114)	152	50.7	χ^2= 133.04 P=0.000 (HS)
	Type – 2 (115 – 146)	142	47.3	
	Type – 3 (147 – 176)	6	2.0	
	Mean ± SD	115.13 ± 13.60		

HS: Highly Sig. at P<0.01; The Statistical Hypotheses are Based on Chi-Square test (*)

Table (4) shows distribution of asking about "Physical Activity", as well as results has indicated that there has been a highly significant differences at P<0.01 among different groups, and majority of responding are reported with moderate group, and they are accounted 164(53.25%), while the fist group are accounted 115(37.34%), and finally third group are recorded 29(9.41%). From pervious results it could be conclude that most of the studied individuals had a week physical activity.

Table (4): Distribution Physical Activity of studied sample with Comparisons Significant

Variables	Groups	No.	%	C.S. (*) [P-value]
Physical Activity	Low	115	37.34	χ^2= 90.981 P=0.000 (HS)
	Moderate	164	53.25	
	Sever	29	9.41	

HS: Highly Sig. at P<0.01; Statistical tests are based on Chi-Square test(*)

Table (5) shows distribution of initial assessments of different scaling system (BAI) among the studied sample through redistributed of key system. Results shows that majority responding having a moderate assessments, and they are accounted 157(52.3%), then followed with low assessments, and they are accounted 101(33.7%), and finally followed by sever assessments, and they are accounted 42(14.0%). In addition to that highly significant different at P<0.01 are obtained.

Table (5): Distribution of initial assessments of "Beck Anxiety Inventory" Scoring Scales among the Studied Sample.

	Groups	No.	%	Cum. %	C.S. (*) [P-value]
BAI Scoring Scales	Low	101	33.7	33.7	χ^2= 66.14 P=0.000 (HS)
	Moderate	157	52.3	86.0	
	Sever	42	14.0	100	
	Total	300	100	-	

HS: Highly Sig. at P<0.01; Statistical tests are based on Chi-Square(*)

Table (6) shows ordered statistics concerning defected numbers of scaling system (BAI) among studied of obesity sample. Results indicating that whom had affected quality of life and lead to psychological problems,

such as anxiety and depression might be resulted by obesity status could be indexed within prevalence (> 2 : 3) times, since mean value of defected individuals are accounted 206 with standard deviation 49 obese.

Table (6): Distribution of defected ordered numbers "Beck Anxiety Inventory" among the Studied of obesity Sample.

"Beck Anxiety Inventory" Scoring Scales	Defected No.	Order
Nervous	271	1
Unable to Relax	265	2
Fear of Worst Happening	259	3
Fear of Losing Control	256	4
Dizzy or Lightheaded	238	5
Difficulty In Breathing	237	6
Unsteady	229	7
Terrified or Afraid	229	8
Indigestion	226	9
Hot/Cold Sweats	224	10
Feeling Hot	221	11
Feeling of Choking	220	12
Numbness or Tingling	216	13
Heart Pounding/Racing	197	14
Shaky / Unsteady	193	15
Faint / Lightheaded	164	16
Hands Trembling	162	17
Scared	148	18
Fear of Dying	144	19
Wobbliness In Legs	140	20
Face Flushed	83	21
Mean ± SD	205.8 ± 49.0	

To Predict or to find out relationship among Beck Anxiety Inventory scoring scales (BAI) in light of socio-demographical characteristics variables (SDCv.) for studied sample, relationship through applying contingency coefficients are constructed in table (7) with comparisons significantResults shows that most of the studied SDCv. having significant relationships with an overall assessment of scaling system BAI in at least at P<0.05, except of gender, since no significant relationship at P>0.05 are accounted.

Table (7): Relationship among BAI (Scoring Scales) and Socio-Demographical Characteristics variables (SDCv).

Overall Ass.	Socio-Demographical Characteristics variables (SDCv.)	Contingency Coefficients	Approx. Sig.	C.S.(*)
BAI (Scoring Scales)	Age Groups	0.235	0.007	HS
	Gender	0.126	0.091	NS
	Occupation	0.291	0.002	HS
	Educational level	0.292	0.002	HS

(*)HS: Highly Sig. at P<0.01; S: Sig. at P<0.05; NS: Non Sig. at P>0.05; Statistical tests are based on testing Contingency Coefficient

To Predict or to find out relationship among scaling (BAI) in light of (BMI) for studied obese, correlation ship through applying contingency coefficients are constructed in table (8) with comparisons significant,Results shows that BMI having significant relationships with an overall assessment of scaling system BAI atP<0.05. **Table (8): Relationship among BAI (Scoring Scales) and BMI of the studied sample**

BMI Groups	No. and Percents	BAI (Scoring Scales)			C.S. (*) [P-value]
		Low	Moderate	Sever	
Obese – 1 (30 – 34)	No.	25	29	7	CC=0.204 P=0.011 S
	% BMI	41.0%	47.5%	11.5%	
	% Score	24.8%	18.5%	16.7%	
Obese – 2 (35 – 39)	No.	33	43	4	
	% BMI	41.3%	53.8%	5.0%	
	% Score	32.7%	27.4%	9.5%	
Obese – 3 (≥ 40)	No.	43	85	31	
	% BMI	27.0%	53.5%	19.5%	
	% Score	42.6%	54.1%	73.8%	

S: Sig. at P<0.05; Statistical tests are based on testing Contingency Coefficient(*)

Association between scaling system (BAI) and (Waist Circumference) of obese, contingency coefficients are constructed in table (9) with comparisons significant,Results shows that Waist (cm) have

significant relationships with an overall assessment of scaling system BAI at P<0.05

Table (9): Relationship among Waist Circumference (cm) and scaling system BAI of obesity sample

Waist (cm) Groups	No. and Percents	BAI (Scoring Scales)			C.S. (*) [P-value]
		Low	Moderate	Sever	
Type – 1 (83 – 114)	No.	57	83	12	CC=0.184 P=0.032 S
	%Waist(cm)	37.5%	54.6%	7.9%	
	% Score	56.4%	52.9%	28.6%	
Type – 2 (115 – 146)	No.	43	70	29	
	%Waist(cm)	30.3%	49.3%	20.4%	
	% Score	42.6%	44.6%	69.0%	
Type – 3 (145 - 176)	No.	1	4	1	
	%Waist(cm)	16.7%	66.7%	16.7%	
	% Score	1.0%	2.5%	2.4%	

S: Sig. at P<0.05; Statistical tests are based on testing Contingency Coefficient(*)

To Predict or to find out relationship among scaling system (BAI) in light of inheriting, and exercise history for studied sample, correlationship through applying contingency coefficients are constructed in table (10) with comparisons significant,the " Physical Activity " have highly significant relationship with an overall assessment of scaling system BAI at P<0.01.

Table (10): Relationship among BAI (Scoring Scales) and Physical Activity

Overall Ass.	Physical Activity	Contingency Coefficients	Approx. Sig.	C.S.(*)
BAI Scoring Scale	Physical Activity	0.427	0.000	HS

HS: Highly Sig. at P<0.01; Statistical tests are based on testing Contingency Coefficient(*)

Table (11) shows meaningful linear regression model tested in two tailed alternative statistical hypothesis among two factors, obesity (BMI) factor scaling system BAI factor. Slop value indicating that with increasing one unit of (BMI), a positive increment should be occurred on unit of scaling system BAI, and estimated with (0.208782) by linear-shape mode, and that increment recorded significant effect at P<0.05, as well as, strong correlation coefficient had been reported between the studied factors, and accounted (0.14384) with significant relationship at P<0.05,In addition to that, a constant term in regression equation shows that non assignable effects that not included in the regression equation had a highly significant effectiveness, and at P<0.01.

Table (11): Effectiveness of BMI on scaling system BAI

Dependent variable Method... Linear-Shape Model for scaling system BAI					
List wise Deletion of Missing Data					
Simple Correlation Coefficient	0.143841	Meaningful Linear regression Tested in two tailed alternative Statistical hypothesis			
F =	6.29598	Sign. F =	0.0126		
Variables in the Equation					
Variable	B	SE.B	Beta	(t)	Sig. of (t)
BMI	0.208782	0.083207	0.143841	2.509	0.0126
(Constant)	16.19052	0.3.47791	-	7.225	0.0000

Table (12) shows meaningful linear regression model tested in two tailed alternative statistical hypothesis among two factors, obesity (Waist Circumference) factor on scaling system BAI factor. Slop value indicating that with increasing one unit of (Waist Circumference), a positive increment should be occurred on unit of BAI (Scoring Scales), and estimated with (0.113554) throughout applied linear-regression equation, and that increment recorded significant effect at P<0.05, as well as, strong correlation coefficient had been reported between the studied factors, and accounted (0.15551) with significant relationship at P<0.05,In addition to that, a constant term in regression equation shows that non assignable effects that not included in the regression equation had significant effectiveness, and at P<0.05.

Table (12): Effectiveness of Waist Circumference (cm) on scaling system BAI

Dependent variable Method... Linear-Shape Model for scaling system BAI					
List wise Deletion of Missing Data					
Multiple R	155510.	Meaningful Linear regression Tested in two tailed alternative Statistical hypothesis			
F =	7.38561	Sign. F =	0.0070		
Variables in the Equation					
Variable	B	SE.B	Beta	(t)	Sig. of (t)
Waist (cm)	0.113554	0.041784	0.155514	2.718	0.0126
(Constant)	11.72687	4.843772	-	2.421	0.0161

Discussion of the Results (Socio- demographical characteristics)

The present study indicates that the majority of patients (74%) were female, while the lower percentage (26%) was male. These results are supported by Hossam M. Al-Amarei In Iraq(2011)(157), his results show (74) female, while the lower percentage (25.8%) was male , and about Age Groups are distributing similarly at first of the three groups, and they are accounted (87%)of the obese were within age group ranging between (50-60) years, whereas the minority (13.0%)and with mean and standard deviation 36.77 yrs., and 10.16 yrs , These results are supported by Magdy A. Darwish, Zainab A. Al Turki , Amr A. Sabra in Saudi Arabia (2014) (26), who showed Similar at first of the two groups, and they are accounted (85%),were within age group ranging between (50-60) years, whereas the minority (13.8%) and with mean and standard deviation 34.3yrs., and 9.3yrs. which agree with this study. Concerning of "Marital Status the married were reported vast the broader, and they are estimation (77.7%). While the separated and divorced are the minority in the study is (0.7%).These results are supported by Magdy A. Darwish, Zainab A. Al Turki, Amr A. Sabra in Saudi Arabia (2014) (28), who showed the married were reported vast majority of the studied sample, and they are accounted (73.7%). While the Widowed and divorced are the minority which was (1.7%) and (2.7%), respectively which agree with this study.Regarding educational levels about one third of the sample, and they are accounted (24.7%), while whom had low educational levels, such as primary, intermediate, and secondary schools are accounted (60.67%), then finally read and write and illiterate had accounted (9.7%), and (5%) respectively. These results are supported by Magdy A. Darwish, Zainab A. Al Turki, Amr A. Sabra in Saudi Arabia (2014) (26), who showed high educational level, and they are accounted (35.8%), while those who had low educational levels, such as primary, intermediate, and secondary schools are accounted (57%), then finally read and write and illiterate had accounted (3%), and (2.4%) respectively .which agree with this study. Regarding the Occupation the largest part of the studied sample is, unemployed and they are accounted (67%). These results are in agreement with Magdy A. Darwish, Zainab A. Al Turki, Amr A. Sabra in Saudi Arabia (2014) (26), who showed the largest part of the studied sample were, unemployed and they were accounted (52%).

Anthropometric Aspects (Body mass index (BMI)

The results showed that a very large difference between the different groups in P value <0.01 calculated, and the majority of people are obese, according to the third division, representing (53%). These findings support according to the Majdi A. Darwish, Zainab Abdul Aziz Al-Turki, Amr A. Sabra in Saudi Arabia (2014) (26), Which does not agree with the vast majority of this study, obesity was reported in the first class, and they are accounted for (54.6%). because the results which used in the source (26) and that conducted in Saudi Arabia depended on measure whole Weights , its means normal and overweight also obesity to(one, two, three)forms global ,while results Our study Which Conducted Researcher in Iraq depended on measure only obesity to(one, two, three)forms global , lead to appearance results our study Reverse the results in source (28) its means the percentage which Conducted Researcher are large in obese type three(Progressive) while in source are large in obese type one (Descending) additional the results are agree and disagree with Rachel L McCrea MSc, Yves G Berger PhD, Michael B King MD Ph Din McCrea, R.L., Berger, Y.G., King, M.B., 2012(27)results show agree in obese class one and two respectively(19.1),(20.4)while disagree in obese class three(35.0)because taken all weight .also the results are the average ± SD (41.237 ± 6.839). With the support of the Sierra Mariana Murguía in Mexico (2012) (28), which showed average ± SD (45.53 ± 9.20), which are consistent with this study.

Waist circumference):- (Anthropometric Aspects

Results are offered through the application of three levels (Type - 1, Type - 2, Type - 3) in the light of the lessons periods [(83-114), (115-146) and (147-176)] cm, respectively. The results showed significant value of (P<0.01) between different groups, and the majority of reported waist with first class, and they are accounted for (50.7%). These findings goes with the results of Majdi A. Darwish, Zainab Abdul Aziz Al Turki, Amr A. Sabra in Saudi Arabia (2014) (26). Who disagreed with the study? Because the results of which were used in their study is

based on measuring the waist circumference acceptable and unacceptable, mean 80 cm or less than 80 cm, while the results of our study were used to measure the waist circumference unacceptable , mean above the of 80 cm. In addition is the average ± SD (115.13 ± 13.60). The support of the Mariana Sierra Murguíain Mexico (2012) (28) show that the average ± SD (121.87 ± 17.48).

Physical Activity

Physical Activity the results has indicated that there has been a highly significant differences at P<0.01 among different groups, and majority of responding are reported with moderate group, and they are accounted (53.25%), while the fist group are accounted (37.34%), and finally third group are recorded (9.41%). From pervious results it could be conclude that most of the studied individuals had a week or poor physical activity. These results were comparable to study done by Kath Roberts and Katie Marvin in Oxford 2011(29).which majority of responding are reported with moderate group, and they are accounted (56.8%), while the first group are accounted (24.2%), and finally third group are recorded (13.8%). From pervious results it could be conclude that most of the studied individuals had week physical activity.

Assessment of Beck Anxiety Inventory (BAI)

To assess primarily initial assessment throughout categories of responding, such that (Low, Moderate, and High) in light of relative sufficiency's for scaling (BAI) among studied of obesity sample. Results shows that more than half of studied scaling (BAI) system is reported moderate, and they are accounted (57.14%), and leftover items assessed low, and they are accounted (42.86%). Results shows that majority responding having a moderate assessments, and they are accounted (52.3%), then followed with low assessments, and they are accounted (33.7%), and finally followed by sever assessments, and they are accounted (14.0%). In addition to that highly significant different at P<0.01 are obtained. These results were comparable to study done by Magdy A. Darwish, Zainab A. Al Turki , Amr A. Sabra in Saudi Arabia (2014)(28). Agreement results based refused to agree on the assessment of body mass index to the same study that the retroactive Beck Anxiety Inventory (BAI) leans toward the extreme if the obesity of the third category upward means the inverse relationship between obesity and anxiety and The inconsistency between the findings of these studies is attributed to the difference in methodology and measurement (32) Shows ordered statistics concerning defected numbers of scaling system (BAI) among studied of obesity sample. Results indicating that those who had affected quality of life and lead to psychological problems, such as anxiety might be resulted by obesity status could be indexed within prevalence (> 2 : 3) times, since mean value of defected individuals are accounted 206 with standard deviation 49 obese. Shows ordered statistics of defected responding of scaling system (BAI) among studied of obesity sample.

Findings out Relationships of BAI (Scoring Scales) and Socio-Demographical Characteristics variables (S D C v):

To find out relationship among Beck Anxiety Inventory scoring scales (BAI) in light of socio-demographical characteristics variables (SDCv.) the contingency coefficients are constructed in with comparisons significant .Results shows that most of the SDCv. having significant relationships with an overall assessment of scaling system BAI in at least at P<0.05, except of gender, since no significant relationship at P>0.05. These results are supported by John R. Crawford and Julie D. UK (2003) (33).which correlation significant at .01 level except of gender Correlation significant at .05 level. Which agree with this study.

Relationships among BAI (Scoring Scales) and Anthropometrics Parameters:

Relationships among BAI (Scoring Scales) and BMI Parameters:

Results shows that BMI having significant relationships with an overall assessment of scaling system BAI at P<0.05and contingency coefficients (0.204). the findings of this or present study were supported by siddall ,A.,Turner ,p.,Stevenson ,R.,Standage,M., BilZon,j., in UK Operational Firefighters(2014)(34).the results show high significant relationships with an overall assessment of scaling system BAI at <0.01. And contingency coefficients (0.082). Which agree with this study.

Relationships between scaling system BAI and Waist (cm) Parameter:

Results shows that Waist (cm) have significant relationships with an overall assessment of scaling system BAI at P<0.05. And contingency coefficients (0.184). the findings of this or present study were supported by siddall ,A.,Turner ,p.,Stevenson,R.,Standage,M.,BilZon,j., in UK Operational Firefighters(2014)(34).the results show significant at <0.05, and contingency coefficients (0.056). Which agree with this study

Relationships of BAI (Scoring Scales) and (Physical Activity):

The Physical Activity have highly significant relationship with an overall assessment of scaling system BAI at P<0.01. the findings of this or present study were supported by siddall ,A, Turner,p.,Stevenson,R.,Standage,M.,BilZon,jinUKOperational Firefighters(2014)(34),the results show high significant at p <0.01, which agree with this study.

Impact of Anthropometric Parameters:Impact of obesity (BMI) on scaling system BAI:

Meaningful linear regression model tested in two tailed alternative statistical hypothesis among two factors, obesity (BMI) factor scaling system BAI factor. Slop value indicating that with increasing one unit of (BMI), a positive increment should be occurred on unit of scaling system BAI, and estimated with (0.208782) by linear-shape mode, and that increment recorded significant effect at P<0.05, as well as, strong correlation coefficient had been reported between the studied factors, and accounted (0.14384) with significant relationship at P<0.05 In addition to that (t) (2.509). The results of the previous study done by The Mokhtari, Rosita Jamaluddin and Hazizi Abu Saad in Malaysia(2015)(36). Disagreement with the present. because the researcher results shown with relationship positive between body mass index and Beck anxiety inventory also significant at P value < 0.05 Reverse results which depended in the source (36) she was with relationship negative or poor the main reason of related between anxiety and obesity Extrusive its means Whenever increase obese specially type three Global Rose anxiety rate as Shown with researcher results while in sources (36) she was obesity results from type one that high percentage consider are low danger from type three Global that lead to lower in anxiety percentage and the poor significant in additional the researcher depended on Beck scales to scaling anxiety while sources (36) using other scales to scaling anxiety. Previous studies in this area have produced mixed outcome (A. Mykletun and Rivenes, A.C., S.B. Harvey, 2009 (37) and (B. Penninx and Van Reedt Dortland, A., E. Giltay, Van T. Veen, F. Zitman, 2010) (38) and (Gadalla, T,2009) (39) reported a non-significant association between obesity and anxiety (S. Bella and Cilli, M., De R. Rosa, C. Pandolfi, K. Vacca, P. Cugini, 2003) (40),(M.S. Johnson and Davis, E.M., S. Rovi, 2005) (41) found a moderate positive association between obesity and anxiety While(Simon, G.E., Von M. Korff, K. Saunders, D.L. Miglioretti, P.K. Crane, van G. Belle and R.C. Kessler 2006) (44) discovered a significant association between obesity and anxiety. The inconsistency between the findings of these studies is attributed to the difference in methodology and measurement (J. Michopoulos and Lykouras, L., 2011) (32).

Impact obesity (Waist Circumference) on scaling system BAI:

Meaningful linear regression model tested in two tailed alternative statistical hypothesis among two factors, obesity (Waist Circumference) factor on scaling system BAI factor. Slop value indicating that with increasing one unit of (Waist Circumference), a positive increment should be occurred on unit of BAI (Scoring Scales), and estimated with (0.113554) throughout applied linear-regression equation, and that increment recorded significant effect at P<0.05, as well as, strong correlation coefficient had been reported between the studied factors, and accounted (0.15551) with significant relationship at P<0.05. In addition to that, a constant term in regression equation shows that non assignable effects that not included in the regression equation had significant effectiveness, and at P<0.05, because depending on Beck anxiety inventory scales in the study and range affected by waist Circumference in other studies using other scales .The present study for the first time refers to results in such aspects. Unfortunately, no supportive evidence similarly for these results is available in the literatures for comparison.

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