



DEPRESSIVE SYMPTOMS AMONG OVERWEIGHT STUDENTS AT UNIVERSITY OF KUFA

Instructor Assist. Astabrak A. N. Al-Hamoodi

University of Kufa, Faculty of Nursing, Psychiatric and Mental Health Nursing Branch.

ABSTRACT:

There is continuous rising a numbers of overweight and depression among people in world, especially among adulthood persons who in academic years. The study aims to assess depressive symptoms among overweight students and identify the relationship between depression symptoms and demographic characteristics of them.

A descriptive-analytical study was conducted in University of Kufa in Al-Najaf province. The sample of study was a convenience sample consisted of 165 overweight students who studied in one of faculties at University of Kufa. The tool of study had two part. First part related to demographic characteristics and second related to Body Mass Index and Beck's Depression Scale.

The results revealed more than 50% of students had overweight to fatness and mild to moderate degree of depression; while more than (75%) of them reported not had other health problems. There is no significance relationship between depressive symptoms according to Beck's Scale and demographic characteristics, but there is significance relationship between depressive symptoms and health status of students at P-value (0.012).

The study concludes that there is most half of overweight and obese students have mild to moderate depression and most them have opportunity to develop stigma. So, the study recommended to inclusion physical activity in academic program and their role in health promotion.

Keywords: Symptoms, Overweight, Student, Depression

Introduction

Obesity is (overweight) one of important public health problems around the world and increased to double in past two to three decades (WHO, 2013). The expectations of obesity prevalence has constantly increased among Americans individuals in 2030s and the percent of overweight reach to 86.3% of Americans adults (Wang et al., 2008). Iran like many developing countries is experiencing the global obesity epidemic and the resulting adversaries (Tashakori et al., 2016).

Obesity is a disease of indolence may attributed to a prototype of inactivity (Uglešić et al., 2014) and unhealthy life styles. Yet, obese individuals experience a stigmatization and teasing in some societies and in especial settings such as school or university; also, they had nicknames such as “obolo”, “oboshie” in Ghana (Adusei, 2014) are not uncommon.

Also, depressive disorders are common and may be as high as 30% in the general population with women being twice as likely to be affected as men; it has a rank fourth as causes of disability worldwide and has been projected that they may rank second by the year 2020s (Semple & Smyth, 2013). Iranian experts expect that increasing incidence of depression is related to the high prevalence of obesity and the prevalence of depression among Iranian populations ranged from 5.69 to 73% (Tashakori et al., 2016). Iraq does not have official statistical to the number of overweight generally and in Universities especially. So, can depend on WHO estimated to average spread of obesity and depression.

Several evidence-based studies have shown that obese teens have a higher incidence of mental health problems such as depression, anxiety, and poor self-esteem than non-obese teens (Nemiary et al., 2012). Also, the danger of obesity increases in adolescence especially with those who have depression (Tashakori et al., 2016). Women more vulnerability to depression than men (Semple & Smyth, 2013). Most individuals are diagnosed with depression in adolescence period due to the risk of depression increases to double (Uglešić et al., 2014). According to Franko et al. (2005) study is existence of depression in adolescence increases the risk of developing overweight or obesity with age. The period of adolescence is between 10 to 19 years of age, according WHO, United Nations Population Fund (UNFPA) and The United Nations Children’s Fund (UNICEF) (WHO, 1989).

Mental health disturbances lead to impairment of individual's social and physical health; depression leads to disruption in job performance, frequent truancy, social and interpersonal relations (Tashakori et al., 2016). Prevalence of depressive symptoms among university and high school students is one of important issues may due to lowers their academic achievements and success rates (Hysenbegasi et al., 2005), or changes in educational environment.

Obesity effects on physical health have been well documented, but its consequences for mental health are less certain; there are several studies studied the association of obesity and depression in which some approve it and others reject the relationship (Tashakori et al., 2016). Generally these studies concluded to three types of relation between them. The first type is concluded to the obesity and self-body image are play important role in depression (Askari et al., 2013); while the second type is concluded to the depression is a main cause to obesity (Tashakori et al., 2016; Richardson et al., 2006). The third type is only try to determine the relationship between the them as variables (Tashakori et al., 2016). Both obesity and depression are very prevalent and associated with numerous health complications, including hypertension, coronary heart disease, and increased mortality (Nemiary et al., 2012).

The continuous rising a numbers of overweight and depression among people in world (Wang et al., 2008; WHO, 2013; Tashakori et al., 2016); specially among adulthood persons who in academic years because it is a vital period for learning and social development (Al-Busaidi et al., 2011) and most them are more vulnerable to depression and obesity (Franko et al., 2005). Iraq is like many developing countries is experiencing the global overweight epidemic and depressive symptoms and there is lack of studies have surveyed the relationship between overweight and depressive symptoms among students in Iraq generally and in University of Kufa specially.

Methodology

A descriptive-analytical study was conducted in University of Kufa (21 faculties) in the Holy Al-Najaf province. The period of study was from 11th December 2017 to 12th April 2018. The sample of study is a non-probability convenience sample consisted of (165 students; 44 female and 121 male) students who studied in one of faculties at University of Kufa and they have overweight.

The tool of study had two main parts. Part one related with demographic characteristics of students was related to age, gender, residence, faculty, academic year, marital status, job, other health problems. Part two is related with BMI and Beck's Depression Scale.

Body Mass Index (BMI): is the standard measure of overweight and obesity in children 2 years of age and older; it is equal to the body weight divided by the height squared. In adults, a BMI more than 25 is regarded as overweight, a BMI greater or equal to 30 is regarded as fatness* and it is a greater or equal 35 is regarded obese (Nemiary et al., 2012).

* The term of fatness used by Researcher instead of term mild obesity. Also, used term obesity was instead of moderate and morbid obesity.

Beck's Depression Test/Scale: is a standard measure of depression used mainly in research and for the evaluation of effectiveness of depression therapies and treatments. It is not meant to serve as an instrument of diagnosis, but rather to identify the presence and severity of symptoms consistent with the criteria of the DSM-V in 2013 (Uglešić et al., 2014).

The researchers used both descriptive and inferential statistics to analyse data and determine whether the study will achieve their goals or not. The researchers checked data void of mistakes and missing, then used computer software to analyze and extract the results. The computer software used in study is SPSS v.17 and Microsoft Office Excel (2010) to demonstrate data in tables and graphs. Then the results of study were sent to consulting bureau health research and data analysis at University of Kufa / Faculty of Nursing.

Chapter Results of the Study

Table (1): Demographic Characteristics of Students.

Demographic Characteristics (N=165)		Frequency	Percent
Gender	Male	121	73.3
	Female	44	26.7
Age Groups	<=21 yrs	64	38.8
	22-24 yrs	86	52.1
	More than 25 yrs	15	9.1
Marital Status	Married	11	6.7
	Single	154	93.3
Residence	Urban	132	80.0
	Rural	33	20.0
Job	Civil Servant	3	1.8
	Clerk Private Sector	1	.6
	Free Job	1	.6
	Day Laborer	55	33.3
	Jobless	105	63.6
Academic Year	First Stage	38	23.0
	Second Stage	54	32.7
	Third Stage	30	18.2
	Forth Stage	41	24.8
	Fifth Stage	2	1.2
	Total	165	100.0

This table revealed (73.3%) of students are male. The range of students age between 19-27 years old with mean (22.08), further that, most students age between (22 – 24) years old about (52.1%). Most of students were single (93.3%) and residence in urban area (80%), but most of them were jobless (63.6%). The academic year of majority of students in second stage (32.7%) and less participants in fifth and third stage (19.4%) of study sample.

Most students participated from Faculty of Nursing (14.5%) and less participants from Veterinary Medicine and Mathematics & Computer Science Faculties about (0.6%) (figure (1)).

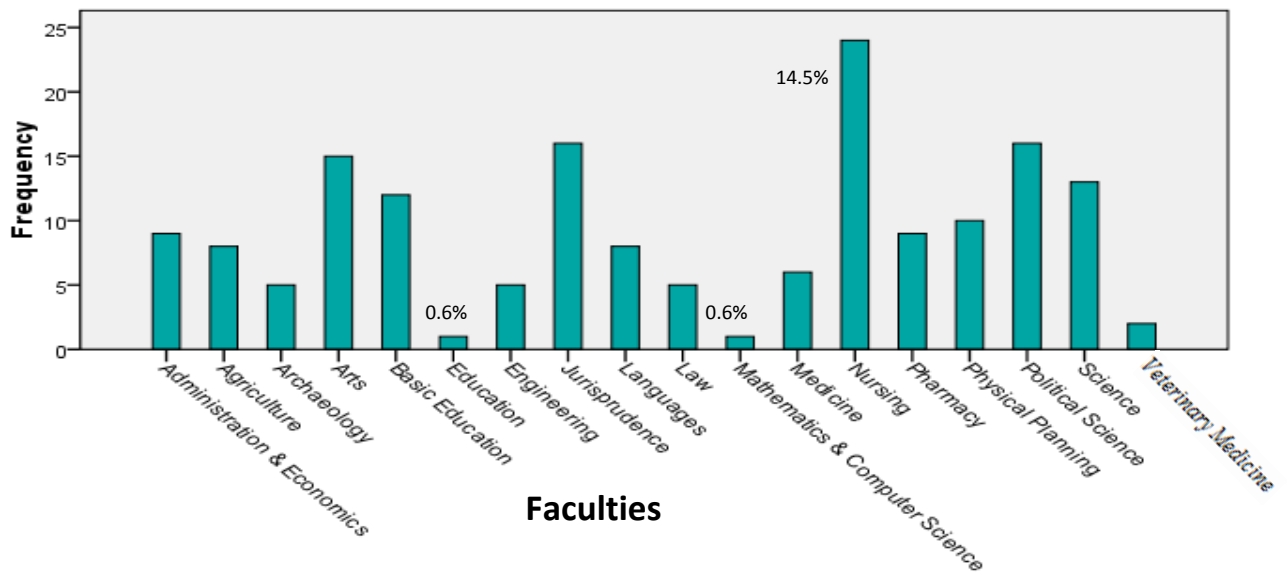


Figure (1): Distributions of Students According to Their Faculties in University of Kufa.

Most students participated in study are reported have depressive symptoms (83%) and (17%) of them reported not have depressive symptoms (figure (2)).

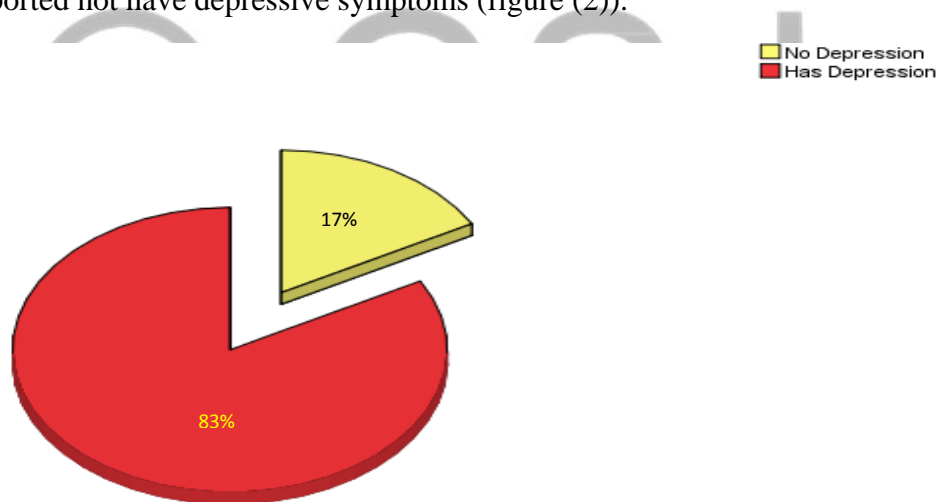


Figure (2): Revealed Students Have Depressive Symptoms.

Table (2): Distribution of Students According to their Clinical Data.

Clinical Data (N=165)		Frequency	Percent
Rate of Body Mass Index	Over Weight	124	75.2
	Fatness	37	22.4
	Obese	4	2.4
	Total	165	100.0
Depressive Symptoms According to Beck's Scale	Not Has Depression	28	17.0
	Mild Depression	47	28.5
	Moderate Depression	38	23.0
	Severe Depression	30	18.2
	Profound Depression	22	13.3
Other Health Problems	Not Has Health Problems	125	75.8
	Has Psychiatric Problems	34	20.6
	Has Physical Problems	6	3.6
Cases of Depression in their Family	Not Has Cases Within Family	151	91.5
	Has Cases Within Family	12	7.3
	Has Cases Within Relative	2	1.2
	Total	165	100.0

In this table shown (75.2%) of students according to BMI are overweight and less percent are Obese. Also, more students have mild degree of depression symptoms (28.5%) and less them were not have depressive symptoms according to Beck's Scale; while more than (75%) of them reported not have other health problems. As well as, more than (90%) of students are not have cases of depression in their families.

Table (3): Relationship Among Depressive Symptoms and Demographic Characteristics of Students and Clinical Data.

		Depressive Symptoms According to Beck's Scale					Chi-square			Sig.
		Not Has Depression	Mild Depression	Moderate Depression	Severe Depression	Profound Depression	X ²	df	P-Value	
Gender	Male	21	32	24	26	18	6.25	4	.181	NS
	Female	7	15	14	4	4				
Age Groups	<=21 yrs	11	16	16	14	7	9.39	8	.311	NS
	22-24 yrs	13	27	20	11	15				
	More than 25yrs	4	4	2	5	0				
Residence	Urban	22	37	31	23	19	0.91	4	.923	NS
	Rural	6	10	7	7	3				
Marital Status	Married	2	5	2	1	1	2.02	4	.733	NS
	Single	26	42	36	29	21				
Faculty	Archaeology	0	1	1	3	0	74.16	68	.284	NS
	Arts	2	6	5	1	1				
	Administration & Economics	1	2	2	3	1				
	Physical Planning	2	0	2	5	1				
	Education	0	0	0	1	0				
	Basic Education	1	2	3	2	4				
	Nursing	5	7	5	1	6				
	Agriculture	3	2	1	1	1				
	Pharmacy	1	3	4	0	1				
	Medicine	3	0	1	1	1				
	Veterinary Medicine	0	0	1	0	1				
	Science	2	5	2	2	2				
	Political Science	3	7	2	3	1				
	Jurisprudence	2	8	2	3	1				
	Law	2	1	2	0	0				
	Languages	1	2	2	3	0				
	Engineering	0	1	3	0	1				
	Mathematics & Computer Science	0	0	0	1	0				

Continues Table (3)...

		Depressive Symptoms According to Beck's Scale					Chi-square			Sig.
		Not Has Depression	Mild Depression	Moderate Depression	Severe Depression	Profound Depression	X^2	df .	P-Value	
Academic Year	First Stage	8	9	8	5	8	12.43	16	.714	NS
	Second Stage	8	15	12	14	5				
	Third Stage	5	12	7	3	3				
	Forth Stage	7	10	11	8	5				
	Fifth Stage	0	1	0	0	1	17.98	16	.325	NS
Rate of Body Mass Index	Over Weight	18	37	32	20	17				
	Fatness	10	7	6	10	4				
	Obese	0	3	0	0	1				
Other Health Problems	Not Has Health Problems	25	41	25	22	12	19.55	8	.012	S
	Has Psychiatric Problems	2	6	10	6	10				
	Has Physical Problems	1	0	3	2	0				
Cases of Depression in their Family	Not Has Cases Within Family	26	45	36	26	18	9.21	8	.325	NS
	Has Cases Within Family	1	2	2	4	3				
	Has Cases Within Relative	1	0	0	0	1				

In this table, that there are no significance between Depressive Symptoms According to Beck's Scale and demographic characteristics and some clinical data of students (age, gender, residence, marital status, faculty, academic year, IBM and cases of depression in their family), but there is significance relationship between depressive symptoms and health status of students at P-value (0.012).

Discussion

A total of 165 students participated in the study. Most of them were male and age between 21-24 years old because all researchers are male most girls shyness to measured their weight by male or other with overweight avoided participation in the study may be fear from diseases or stigma or body dissatisfaction. More participants were in second years of academic life (32.7%), this result consistent with study of Al-Busaidi et al. in Oman (2011).

Majority of them had mild to moderate symptoms of depression may because their weight or because other variables like marital status, job, other health problems,...etc. may display this symptoms (Nemiary et al., 2012).

There was no significance relationship between gender of students and depressive symptoms may because of most of them were male, this result consistent with the criteria of depression is "girls more prone to depression than obese boys" (Semple & Smyth, 2013; Nemiary et al., 2012). Also, there was no significance relationship between residence of students and depression because the residence is not one of main causes of depression, this contrast with study of Adusei (2014) more than half of the women in the urban capital of Ghana are either overweight or obese and depressive symptoms may exist in black youth but not in white youth (Erickson et. Al., 2000). As well as, there was non-significance relationship between depression and marital status and BMI may because the type of sample used and the small number of students have overweight were married (table (2)), this results contrast with study of Tashakori et al. in Iran (2016) and most studies confirm it.

Whereas, there was significance relationship between depressive symptoms and has other physical or psychiatric health problems at P-value (0.012) may because most students reported not have other health problems (75.8%, in table (2)) and a chance to appear the depression increased when the person has other health problems, this result consistent with study of Peltzer et. Al. (2014).

Conclusion:

The study concludes that there is most half of overweight and obese students have mild to moderate depression and most of them have opportunity to develop body dissatisfaction or stigma due to lack of physical and social activities for them. As well, there is increased significance relationship between depression and other health problems.

Recommendations:

1. Ensure inclusion physical activity and sport in academic program and their role in health promotion.
2. Conducting periodic symposiums and meeting about dangerous of overweight (it related to psychiatric problems) as a part of academic health education program.
3. Conducting studies about stigma and overweight.

References

- Adusei S. Y.: The Relationship Between Obesity and Depressive Symptoms Among Young Ghanaians, 2014, University of Ghana, in press, <http://ugspace.ug.edu.gh>.
- Al-Busaidi Z., Bhargava K., Al-Kindi R., Al-Shafae M. and Al-Maniri A.: Prevalence of Depressive Symptoms among University Students in Oman, 2011, Oman Medical Journal, 26, 4, p. 235-239.
- AskariJ., HassanbeigiA., KhosraviH. M. et al.: The relationship between obesity and depression, 2013, Procedia—Social and Behavioral Sciences, vol. 84, p.p. 796–800.
- Erickson S.J., Robinson T.N., Haydel K.F. and Killen J.D.: Are overweight children unhappy? Body mass index, depressive symptoms, and overweight concerns in elementary school children, 2000, *Arch.Pediatr.Adolesc.Med*, 154(9), p. 931-935.
- Franko D. L., Striegel-Moore R. H., Thompson D., Schreiber G. B. and Daniels S. R.: Does adolescent depression predict obesity in black and white young adult women?, 2005, Psychological Medicine, vol. 35, no. 10, p.p. 1505–1513.
- Hysenbegasi A., Hass S. L. and Rowland C. R.: The impact of depression on the academic productivity of university students, 2005, The Journal of Mental Health Policy and Economics, vol. 8, no. 3, p.p. 145–151.
- Nemiary D., Shim R., Mattox G. and Holden K.: The Relationship Between Obesity and Depression Among Adolescents, 2012, *Psychiatric Annals*, 42:8, p. 305-308.
- Peltzer K., Pengpid S., Samuels T., Özcan N., Mantilla C., Rahamefy O., Wong M. and Gasparishvili A.: Prevalence of Overweight /Obesity and Its Associated

Factors among University Students from 22 Countries; 2014, Environmental Research and Public Health, 11, p. 7425-7441.

- Richardson L. P., Garrison M.M., Drangsholt M., Mancini L. and LeResche L.: Associations between depressive symptoms and obesity during puberty, 2006, General Hospital Psychiatry, vol. 28, no. 4, p.p. 313–320.
- Semple D. & Smyth R.: Oxford Handbook of Psychiatry, 3rd edition, 2013, © Oxford University Press, p. 231-39.
- Tashakori A., Riahi F. and Mohammadpour A.: The Relationship between Body Mass Index and Depression among High School Girls in Ahvaz, 2016, Hindawi Publishing Corporation, Advances in Medicine, Volume 2016, p. 1-5.
- Uglešić B., Lasić D., Žuljan-Cvitanović M., Buković D., Karelović D., Delić-Brkljačić D., Buković N. and Radan M.: Prevalence of Depressive Symptoms among College Students and the Influence of Sport Activity, 2014, Coll. Antropol., 38, 1, p.: 235–239
- Wang Y., Beydoun M. A., Liang L., Caballero B. and Kumanyika S. K.: Will all Americans become overweight or obese? Estimating the progression and cost of the US obesity epidemic, 2008, Obesity, vol. 16, no. 10, p. 2323–2330.
- World Health Organization: Obesity and Overweight Fact Sheet No311, 2013, Available at: <http://who.int/mediacentre/factsheets/fs311/en/>.
- World Health Organization: The Reproductive Health of Adolescents, a strategy for action, 1989, a Joint (WHO/ UNFPA/ UNICEF Statement, World Health Organization, Geneva).
- www.Merriam-Webster dictionary, December 2017.