Current Clinical and Medical Education

Assessment of Obesity Awareness among Thi-Qar University Students

Fatima J. Shinjar

Department of Adult Nursing, College of Nursing, University of Thi-Qar, Nasiriyah City, Iraq

Abstract: - As the frequency of overweight and obesity among university students rises. They should receive extra attention due to their potential impact on the family and their role in the country's workforce in the near future. The study aimed to determine obesity among university students and evaluate their awareness about obesity. A descriptive study was carried out from 30th, October, 2023 to 30th, May 2024. Non-probability sample of 320 students from Thi-Qar University was selected.

A questionnaire constructed by the researcher. There were three sections on the questionnaire: demographic information, health information and behaviours as well as, the knowledge of Participants about obesity and their perception. A content validity determined by panel of specialists.

The researchers concluded that the majority of the participants in the study showed normal body weight and good awareness about obesity. Thus, the researcher recommended integrating nutrition and health education into school and college curriculum. Use social media campaigns and online interventions to raise awareness about obesity. As well as enhancing community health nurses, roles at public medical clinics is recommended to increase awareness about obesity

Corresponding Author: Fatima J. Shinjar†, Department of Adult Nursing, College of Nursing, University of Thi-Qar, Nasiriyah City, Iraq

Corresponding Author: fatima-jaber@utq.edu.iq

Introduction:

All age groups, including children, adolescents, adults, as well as the elderly, are affected by obesity, which is classified as an epidemic disease [1]. The definition of obesity is having more body fat than is optimal. This increase in body fat is caused by an energy imbalance between caloric intake and expenditure, and it is influenced by a variety of complex underlying factors related to behaviour, environment, and furthermore genetics "Food is a key component of these factors" [2].

As a result, researchers are becoming more interested in studying eating habits in order to comprehend the growing obesity epidemic. In the meanwhile, a number of research have demonstrated a relationship between BMI and several epidemiological parameters, including population lifestyle. For example, sedentary employment, alcohol use, physical

activity, and educational level have all been found to be directly correlated with BMI. A Body Mass Index of 26 kg/m2 was a significant risk factor for diabetes, while a BMI of 30 or higher was strongly linked to hypertension and arthritis [3].Given their potential impact on the family and their role in the country's workforce in the near future, university students should receive extra attention as the frequency of overweight and obesity among them rises [4].

Type 2 diabetes mellitus, cardiovascular disease, hypertension, insulin resistance, dyslipidaemia, metabolic syndrome, osteoarthritis, skin conditions like poor wound healing, psychological issues like stress, depression, anxiety, and low self-esteem, poor academic and professional performance, as well as a generally poor quality of life are some of the consequences of obesity among college students [5].

According to WHO annual report of obesity 2024, 79% of adults with overweight and obesity will live in Low- and Middle-Income Countries (LMICs) by 2035. It is projected that the number of adults living with obesity will rise from 0.81 billion in 2020 to 1.53 billion in 2035. [6] Thus, the current study aimed to determine obesity and obesity awareness among Thi-qar university students.

Material and Methods

Study Design: The study employed a descriptive cross-sectional study design. The study started from 30th, October, 2023 to 30th, May 2024.

Ethical consideration: An informed consent submitted to the students. Complete secrecy and anonymity were ensured, and it was promised that the data gathered would only be utilised for study.

Study Setting: The study was conducted in Thi-Qar University

Study Sample: A non-probability sample consisting of (320) male and female students studying in the University Thi-Qar was selected to achieve the objectives of the study.

Inclusion Criteria of the Sample: Qualified and registered students studying in the colleges of Thi-Qar University and students who agreed to participate in the study

Exclusion Criteria of the Sample: students who refused to participate in study, and who refused to complete the questionnaire.

Instrument of the study: Quantitative data was collected using questionnaire constructed by researchers. The study tool encompassed three parts:

Part I: Socio- Demographic Data: It consists of nine elements. It is concerned with collecting basic social and demographic data acquired from study participants, including age, gender, marital status, place of residence, mother's and father's education level, income level, height and weight.

Part II: Questions related to health information and behaviours: It consisted of nine item

Part III Questions related to the knowledge of Participants about obesity and there perception : It consisted of (11) multiple choice items. Question number two contains four sub-items to which the answer was yes or no. Also, question number six contains six sub-items, the answer to which is yes or no.

Validity of the Instrument: Content validity for the study instruments were determined by 10 specialists, with the purpose of investigating the clarity, relevancy, as well as adequacy of the questionnaire to measure concept of interest.

Reliability of the Instrument: The reliability of the study revealed that the tool to be acceptable with a person correlation of the 0.8.

Data Collection: The data were collected from 5th February /2024 to 10\ march 2024 A questionnaire was received for all participants.

Statistical Data Analysis: The response rate was 100%. Data was processed and analyzed through SPSS software version IBM 25. Descriptive statistics including the calculation of arithmetic means and standard deviations

Results:

Table (1): Distribution of the patients regarding to sociodemographic features

Basic Information	Groups	Frequency	Percent
Age groups	18-22	224	70
	23-27	92	28.8
	28-32	4	1.3
	Total	320	100
Sex	Male	122	38.1
	Female	198	61.9
	Total	320	100
Marital status	Single	290	90.6
	Married	24	7.5
	Divorced	6	1.9
	Total	320	100
Mother education	Not read/write	36	11.3
	Primary	88	26.9
	Secondary	60	18.8
	Pre-Preparatory	32	10
	college/ institute	104	32.5
	Total	320	100
Father education	Not read/write	20	6.2
	Primary	54	16.9
	Secondary	70	21.9
	Pre-Preparatory	56	17.5
	college/ institute	120	37.5
	Total	320	100
Income	High	40	12.5
	Middle	256	80
	Low	24	7.5
	Total	320	100

The study encompassed 320 students. Results in table 1 presented that most of the patients aged from 18-22 years with percent 70. Regarding to the gender, the greater number of study sample were 198 females and account for (61.9 %). The majority of the participants were single (n= 290; 90.6%). About mother education, the greater number of them were university education (n= 104) with percent 32.5 %. Regarding father education, the greater number of them were university education with percent 37.5 %. The study results specified that the highest proportion of the study participants were average monthly income and they were accounted for (n= 256; 80 %). Table (2) showed the distribution of the students according BMI indicated that most of them within normal body weight (58.1%).

Table (2) distribution of participants Regarding BMI

BMI	Frequency	Percentage
Normal	184	58.1
Thin	80	25
Overweight	38	11.9
Obese	18	5

Table (3) distribution of participants Regarding their Awareness of Obesity

Items	Response	Frequent	Percentage
Is the obesity disease ?	I am not sure	40	12.5
	Yes	**262**	**81.9**
	No	18	5.6

How is obesity determined?	BMI	100	31.3
	Dimensions	18	5.6
	I don't know	34	10
	Weight	**168**	**52.5**
What is the favorite fat in the preparation of food	I don't know	26	8.1
	Butter	54	16.9
	Vegetable oil	**240**	**75**
What food has fewer calories content	I don't know	36	11.2
	Bread, pasta and biscuits.	60	18.8
	fruits and vegetables	**160**	**50**
	Meat, milk and eggs	64	20
DO exercise have any benefit other than control of weight	I am not sure	4	1.2
	Yes	**300**	**93.8**
	No	16	5
Do you want to be aware regarding obesity	Yes	**222**	**69.4**
	No	70	21.9
	I don't know	28	8.7
Do you feel that you knowing about obesity?	Yes	**144**	**45**
	No	84	26.2
	Partly	92	28.8
DO you have one in the family suffers from obesity	Yes	116	35.6
	No	**204**	**63.8**

Knowledge of the relationship between obesity and the other health conditions presented in table (4). The responses of the university students indicated that they know there were relationship between obesity and hypertension with percent (65 %), Heart diseases with percent (75 %), diabetes mulitas with percent (51%), cancer with percent (45%), menstrual irregularity with percent (47%), infertility/impaired fertility with percent (47 %), and finally sleep apnea with percent (60%).

Table (4) : Knowledge of University Students on the Relation between Obesity and Various Health Conditions

Disease	Response	Frequency	Percent
High blood pressure	Yes	208	65
	No	112	35
Heart diseases	Yes	240	75
	No	80	25
Diabetes	Yes	164	51
	No	156	49
Cancer diseases	Yes	144	45
	No	176	55
menstruation irregularity	Yes	150	47
	No	170	53
Infertility	Yes	150	47
	No	170	53
sleep apnea	Yes	192	60
	No	128	40

Discussion:

The purpose of the present study is to investigate the level of obesity and awareness of university students. Analysis of the data revealed that the majority of the participants, comprising 224 participants, fell between the age range of 18 to 22 years old, with percent 70 %. The study conducted by Yahia, & et al. (2016) aimed to explore the effect of nutritional

education on consumption of unhealthy fat among in a sample of university students. The findings of this study support our results where indicated that the mean age of the students was 20.6 ± 2.0 years [7].

In terms to gender, the study participants consisted of 61.9 % females (251 individuals), with the remaining participants being female. This finding corroborated with a study aimed to determine the prevalence of obesity as well as to explores the eating habits among university students by Yun, et al. (2018). That study revealed that the majority of students were female with percent 72.6% [8].

The majority of participants in the study (90. 6%) were single. In a study conducted by Baig and et al. (2015) in Saudi Arabia, To investigate the prevalence of obesity as well as hypertension among University students. This study indicated that the majority of the students were unmarried, with percentage 72.8% [9].

Regarding monthly income 80 percent of the participants have had middle monthly income. Similar to our results a cross-sectional study included 336 female students from Tabriz University of Medical Sciences. Where showed that 61.94 percent of the participants had a middle monthly income [10]. In terms of family history of obesity, the findings showed that the large proportion of the students haven't family history of obesity with percentages of 63.8%. Ikizek and Bayer (2022) provided corroborating evidence for the current study finding, who indicating 82.3 % of the participants in the study haven't family history of obesity [11].

The current study results indicated 81.9% of the university students believe obesity a disease. This finding corroborated with the study conducted by Xue, et al. (2021). The study revealed that 64.6% of the participants believed the obesity a disease. [12]. Regarding the method of obesity determination only 31.3 percent know it determined through BMI measurement. The results contradict the findings of Abdulmohsin, et al. (2025) who discovered that the majority of the university students in Karbala Province know the obesity determined through BMI measurement with percent 40.8 [13].

Based on BMI classification of weight status, findings showed 58.1% of the university students were within normal body weight. The findings corroborated with a study conducted by AlMajed and et al. (2011) to determine prevalence of obesity as well as dyslipidemia and among university students in Kuwait. Who conclude that 49.6 of the students have normal body weight [14]. Another supported a study conducted by Yun and et al. (2018). Who indicated that 176 of 303 students were within normal body weight [15].

Regarding the relationship between obesity and the other health conditions the results indicated that the students didn't know as following hypertension (35%), heart diseases (25%), diabetes mulitas (49%), cancer (55%), menstrual irregularity (53%), infertility/impaired fertility (53%), and sleep apnea (40%). The findings corroborated a study conducted by Genc & Yigitbas (2021) which aimed to examine the obesity and the awareness of the university students [16].

Conclusions:

1. Most of the study participants are aged from 18-22 years old, female, single, and normal body weight.
2. Most university students have good awareness of obesity.

Recommendations:

1. Integrating nutrition and health education into school and college curriculum.
2. Use social media campaigns and online interventions to raise awareness about obesity.
3. Create environments that support physical activity, such as walking trails and cycling courses.
4. Enhancing community health nurses' roles at public medical clinics is recommended to increase awareness about obesity

References:

1. Xue, B., Zhang, X., Li, T., Gu, Y., Wang, R., Chen, W., ... & Han, C. (2021). Knowledge, attitude, and practice of obesity among university students. Annals of palliative medicine, 10(4), 4539546-4534546.

2. Ozkan, Z., Eroglu, B., & Eroglu, A. K. (2023). Investigation of Obesity Awareness and Physical Activity Levels of Primary School Students (Van City Example).

3. Abdulmohsin, M. A., AL-Nasrawii, M. S., & Mohammed, A. A. A. L. G. (2025). An Assessment of Knowledge and Attitude Toward Obesity among a Sample of Colleges Students in Karbala Province, Iraq. Journal of Sichuan University (Medical Science Edition), 56(1).

4. Ghazawy, E. R., Mahfouz, E. M., Rahman, A. E., Ahmed, T., & Emam, S. A. (2022). Obesity/Overweight among University students. Minia, Egypt. Minia Journal of Medical Research, 33(3), 30-36.

5. Moretti, G. D. S., Muniz, P. T., Tavares, C. M., Brunken, G. S., Farias Júnior, J. C. D., & Farias, E. D. S. (2014). Prevalence of and factors associated with overweight among university students from Rio Branco, Acre-Brazil. Revista Brasileira de Cineantropometria & Desempenho Humano, 16, 406-418.

6. Who world obesity atlas (2024). https://www.knowledge-action-portal.com/en/content/world-obesity-atlas-2024

7. Yahia, N., Brown, C. A., Rapley, M., & Chung, M. (2016). Level of nutrition knowledge and its association with fat consumption among college students. BMC public health, 16, 1-10.

8. Yun, T. C., Ahmad, S. R., & Quee, D. K. S. (2018). Dietary habits and lifestyle practices among university students in Universiti Brunei Darussalam. The Malaysian journal of medical sciences: MJMS, 25(3), 56.

9. Baig, M., Gazzaz, Z. J., Gari, M. A., Al-Attallah, H. G., Al-Jedaani, K. S., Mesawa, A. T., & Al-Hazmi, A. A. (2015). Prevalence of obesity and hypertension among University students' and their knowledge and attitude towards risk factors of Cardiovascular Disease (CVD) in Jeddah, Saudi Arabia. Pakistan journal of medical sciences, 31(4), 816.

10. Saghafi-Asl, M., Aliasgharzadeh, S., & Asghari-Jafarabadi, M. (2020). Factors influencing weight management behavior among college students: An application of the Health Belief Model. PloS one, 15(2), e0228058.

11. Ikizek, M., & Bayer, N. (2022). Determination of Obesity Awareness of University Students Who Are Studying in the Field of Health: Obesity awareness and university students. International Journal of Current Medical and Biological Sciences, 2(2), 111-116.

12. Xue, B., Zhang, X., Li, T., Gu, Y., Wang, R., Chen, W., ... & Han, C. (2021). Knowledge, attitude, and practice of obesity among university students. Annals of Palliative Medicine, 10(4), 4539546-4534546.

13. Abdulmohsin, M. A., AL-Nasrawii, M. S., & Mohammed, A. A. A. L. G. (2025). An Assessment of Knowledge and Attitude Toward Obesity among a Sample of Colleges Students in Karbala Province, Iraq. Journal of Sichuan University (Medical Science Edition), 56(1).

14. AlMajed, H. T., AlAttar, A. T., Sadek, A. A., AlMuaili, T. A., AlMutairi, O. A., Shaghouli, A. S., & AlTorah, W. A. (2011). Prevalence of dyslipidemia and obesity among college students in Kuwait. Alexandria Journal of Medicine, 47(1), 67-71.3

15. Yun, T. C., Ahmad, S. R., & Quee, D. K. S. (2018). Dietary habits and lifestyle practices among university students in Universiti Brunei Darussalam. The Malaysian journal of medical sciences: MJMS, 25(3), 56.

16. Genc, F., & Yigitbas, C. (2021). Obesity among University Students and their Awareness of it with Regards to Some Aspects and the Education they Receive. International Journal of Caring Sciences, 14(1), 558-569.