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ORIGINAL ARTICLE

Correlation of Eating Habits and Physical Activity with BMI

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ABSTRACT

Introduction: As life changes and gets to be more developed there are a lot of wellbeing issues and illnesses immerge. One of these major wellbeing issues is weight. About 20–40% of adult and 10–20% of children around the world are obese. Overweight and weight are characterized as abnormal or excessive fat aggregation which will impair health. Body mass index (BMI) is utilized to classify overweight and weight in grown-ups. It is person's weight in kilograms divided by the square of his height in meters (kg/m2). Calculated BMI greater than or rise to to 25 is considered overweight; whereas weight is considered when BMI is equal or more than 30.

Objective: To determine the levels of physical activity and patterns of dietary habits and their associations with BMI among the undergraduate medical students

Material and Methods

Study design: Quantitative cross sectional

Settings: Rawalpindi Medical University Rawalpindi

Duration: Four months i.e. 1st January 2022 to 30th April 2022

Data Collection procedure: Cross sectional was conducted on 200 medical students. Data was collected by validated questionnaire. Stratifies random sampling was done. Physical activity was calculated by International physical activity questionnaire and three factors eating were used to calculate the eating patterns of medical students. Data was analyzed by using SPSS version 22. Means standard deviation and percentages were calculated. Correlation between BMI and Physical activity and eating patterns were analyzed. P value was significant <0.005

Results: As far the results the total number of medical students was 200 in which 92 were males and 108 females. Students selected from all levels of MBBS. The prevalence regarding obesity among the medical students was 7.5%; overweight 12.5% and 10% was under weight. There was no significant relationship between BMI level and physical activity however the relation is significant between BMI and eating patterns (P= 0.01)

Conclusion: In conclusion, low physical movement level and unhealthy eating patterns among medical study empowers implementation of wellbeing instruction programs about obesity and risk components among medical students. Extracurricular physical sports and activities ought to be executed by the organizations to empower students to be more physically dynamic in specific among female students.

Keywords: Obesity, Eating patterns, Physical activity, BMI, Medical Students

INTRODUCTION

As life changes and gets to be more developed there are a lot of wellbeing issues and illnesses immerges. One of these major wellbeing issues is weight. About 20–40% of adult and 10–20% of children around the world are obese[1]. The predominance of overweight and weight in Zambia was 24.7%. And in Algeria, predominance of overweight and obesity among grown-ups was individually 32.5 and 30.9%. In Ethiopia, predominance of overweight and/or weight was found to be 9.4%. Whereas in Nigeria overweight and obesity among civil workers in Lagos, was70.7%. In Sudan the predominance of weight in 2016 is 8.6% based on WHO insights[2,3]. Overweight and weight are characterized as abnormal or excessive fat aggregation which will impair health. Body mass index (BMI) is utilized to classify overweight and weight in grown-ups. It is person's weight in kilograms divided by the square of his height in meters (kg/m2)[4]. Calculated BMI greater than or rise to to 25 is considered overweight; whereas weight is considered when BMI is equal or more than 30[5].

Obesity has developed as a major wellbeing issue. Predominance is expanding tremendously. Different etiological factors had been distinguished as potential causes of weight. There's an increasing have to be consider different determinants of obesity particularly the physical movement and eating propensities. Future specialists considered as role models in community. Specialist wellbeing's does not fair influence them it has vigorous affect on their environment[6, 7]. More knowledge approximately determinants of corpulence among medical students may shed light concerning weight prevention and control. Subsequently, the point of this study was to decide the connections between physical action, eating patterns, and weight among medical students.

As obesity happens the fat tissue gets to be both copious and progressively dysfunctional physiologically. Etiologically these complications are due to the by and large increment in adipokines and lifted levels of free greasy acids. The rise of free greasy acids within the circulation result within the metabolic changes like up regulation of pancreatic insulin discharge, down control of insulin sensitivity inside muscle, diminish affront affectability within the liver, increase hepatic exceptionally light thickness lipids emission and Initiate endothelial dysfunction[2,8]. Low physical movement leads to cardio vascular illness, malignancies and diabetes. WHO recommended that grown-up of age 18 to 64 ought to do at slightest 150-mins moderate intensity or 75 min overwhelming movement in a week[9,10].

MATERIAL AND METHODS

Cross sectional was conducted on 200 medical students. Data was collected by validated questionnaire. Stratifies random sampling was done. Physical activity was calculated by International physical activity questionnaire and three factors eating were used to calculate the eating patterns of medical students. Data was analyzed by using SPSS version 22. Means standard deviation and percentages were calculated. Correlation between BMI and Physical activity and eating patterns were analyzed. P value was significant <0.005.

RESULTS

As far the results the total number of medical students was 200 in which 92 were males and 108 females. Students selected from all

levels of MBBS. The prevalence regarding obesity among the medical students was 7.5%; overweight 12.5% and 10% was under weight. In this study regarding physical activity levels 32.5% students had low activity level, 47.5% moderate and 20% had high levels. It was also concluded from the study regarding eating patterns of students which showed that 40% uncontrolled, 35% conscious and 25% were emotional. There was no significant relationship between BMI level and physical activity however the relation is significant between BMI and eating patterns (P= 0.01).

Table 1: Demographic background

No.	Parameter	Frequency	%age
1	Gender		
	Male	92	46
	Female	108	54
	Total	200	100
2	Level of Education		
	1st Year MBBS	45	22.5
	2nd Year MBBS	40	20
	3rd Year MBBS	42	21
	4th Year MBBS	38	19
	5th Year MBBS	35	17.5
	Total	200	100

Table 2: Anthropometric measurements (n=200)

No.	Parameter	Mean	SD	Min	Max
1	Weight (kg)	62.5	13.7	45	102
2	Height (m)2	1.90	2.89	1.52	1.93
3	BMI	23.1	4.1	14.9	36.7
4	Waist (cm)	74.5	4.0	56	107

Table 3: Classification of students according to BMI (n=200)

No.	Parameter BMI	Number	%age
1	Under weight	20	10
2	Normal	140	70
3	Over weight	25	12.5
4	Obese	15	7.5
	Total	200	100

Table 4: Classification of students according to Physical Activity (n=200)

No.	Parameter BMI	Number	%age
1	Physical Activity		
	Low	65	32.5
	Moderate	95	47.5
	High	40	20
	Total	200	100

Table 5: Classification of students according to eating patterns (n=200)

No.	Parameter BMI	Number	%age
1	Eating Patterns		
	Uncontrolled	80	40
	Conscious	70	35
	Emotional	50	25
	Total	200	100

DISCUSSION

The current study uncovered that the predominance of obesity among medical students was 7.5%. This rate is comparable previously reported among medical students from Sudanese University 9.2%. In any case, the predominance in the present setting is still higher than the prevalence among other colleges in Sudan as the predominance of obesity was 1.7% in non-medical colleges at Khartoum University. On the other hand, the predominance of weight found in this study is comparable to neighboring nations but less than developed nations. In Joined together United Arab Emirates and Egypt the predominance of obesity in medical students were 6.9 and 12.5% individually. In Saudi Arabia, the prevalence of weight among medical students at Imam Mohammed canister Saud Islamic college was 20% .At Kuwait College the predominance of weight among non-medical understudies was 19.8%. Our study appeared noteworthy contrast in physical activity levels between male and female students. Insignificant relationship between sexual orientation and physical action had been recorded by past studies. In spite of the fact that, other studies either uncovered higher level of physical activity among guys or females. Our study uncovered no relationship between physical activity level and BMI. This finding is in steady with earlier studies which uncovered no critical association between physical movement level and prevalence of obesity among medical students. Be that as it may, other studies appeared either positive or negative relationship.

CONCLUSION

In conclusion, low physical movement level and unhealthy eating patterns among medical study empowers implementation of wellbeing instruction programs about obesity and risk components among medical students. Extracurricular physical sports and activities ought to be executed by the organizations to empower students to be more physically dynamic in specific among female students. Further studies are required to distinguish determinants of obesity in non-medical students and in common population in point to compare and to investigate the possible mechanisms behind obesity among young grown-ups.

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