Available Online at http://www.recentscientific.com

ISSN: 0976-3031

International Journal of Recent Scientific Research
Vol. 5, Issue, 11, pp.2146-2148, November, 2014

International Journal of Recent Scientific Research

RESEARCH ARTICLE

OBESITY AND BODY IMAGE PERCEPTION AMONG NURSING STUDENTS IN A TERTIARY HOSPITAL IN BANGALORE, INDIA

***Chaitali AG, Mangala S and Subrahmanyam G**

Department of Community Medicine, Vydehi Institute of Medical Sciences and Research Centre, Bangalore, Karnataka, India

ARTICLE INFO

Article History:

Received 10th, October, 2014
Received in revised form 15th, October, 2014
Accepted 7th, November, 2014
Published online 28th, November, 2014

Key words:

Overweight, obesity, nursing students, body image

ABSTRACT

The present study was undertaken with the objectives i) to assess the prevalence of overweight and obesity among the nursing students in a tertiary hospital and ii) to find out their perception of body image. A total of 235 nursing students participated in the study. The study revealed that 8.1% of them were overweight and 29.4% were obese. 35.2 % of the students who were overweight or obese had history of non-communicable diseases in their fathers (P<0.01). 56.8% of the students who were overweight or obese were not satisfied with their body image (P<0.001).Nurses need to be role models for bringing about a change in behaviour related to health of patients in hospitals as well as in the community. They therefore require to bring about a change in their own behaviors with regard to diet and exercise so as to maintain a healthy weight and be more effective as weight management advisors.

INTRODUCTION

Obesity is a major global public health challenge (Marie Ng, 2014). Factors like environment, genetics and human behaviour interact together to cause obesity (Dang M, 2010) Many countries are experiencing dual burden of under-nutrition and obesity at the same time in the same community (Fact sheet on overweight and obesity, 2014).

The prevalence of overweight and obesity among college students ranged from 13.2 % to 21.3% for overweight and 3.4% to 19.95 % for obesity as seen in various studies (Soma Gupta, 2009; Kiss K, 2009; Pawalak R, 2009; HK Thakkar, 2009-10; Kokila Selvaraj, 2013; Natalia Sira, 2010). Nurses, as part of the health care personnel, need to be role models for the patients in hospitals as well as in the community.

However, if they are overweight it may negatively affect their role as weight management advisors (Chris Key worth, 2013). In view of this, the present study was undertaken with the objectives i) to assess the prevalence of overweight and obesity among the nursing students in a tertiary hospital and ii) to find out their perception of body image.

MATERIALS AND METHODS

A cross-sectional study was conducted among 235 nursing students (1st to 4th yr) studying at a private nursing college in Bangalore, during July to September 2013. Approval was obtained from the College Ethical Committee. Informed consent was taken from each of the participants before the study. Students were explained about the purpose of the study and those who were willing to participate and present during the period of study were included.

A predesigned and pretested questionnaire was administered to all the students comprising of questions related to their dietary habits, physical activity, perception of body image and history of non-communicable diseases amongst their parents.

Anthropometric measurements were recorded. Weight was measured using a digital weighing scale and height was measured using a stadiometer.

For measurement of height the students stood straight with heels, buttocks and back touching the vertical limb of the instrument, and stretching upwards to the fullest extent with arms hanging on the side and without any footwear. The head was aligned so that the lower rim of the orbit and the auditory canal were in horizontal plane.

Weight was measured without any footwear with minimal clothing. Body mass index (BMI) was calculated and they were classified according to WHO's classification for Asians (Philip James, 2009).

Data was recorded on a predesigned proforma and was entered in Microsoft Excel. Statistical analysis was performed using the Statistical Package for Social Sciences (Version 21) software. Percentages and Chi-square test were employed wherever applicable. A P value < 0.05 was considered statistically significant.

RESULTS

A total of 235 nursing students participated in the study. There were 7 (3%) males and 228 (97%) females. Majority of the nursing students 196 (83.4%) were staying in hostel.

Only 18 (7.6%) students had normal BMI according to Asia Pacific Classification. 129 (54.9 %) were underweight and 88 (37.5%) were overweight or obese as shown in Table 1.

* Corresponding author: **Chaitali AG**
Department of Community Medicine, Vydehi Institute of Medical Sciences and Research Centre, Bangalore, Karnataka, India.

Table 1 BMI distribution among nursing students

BMI	No.	%
Underweight	129	54.9
Normal	18	7.6
Overweight	19	8.1
Obese	69	29.4
Total	235	100

The study showed that 55.7 % of students skipped breakfast regularly, 96.2 % consumed fast food regularly and 97.4 % consumed bakery items regularly. Soft drinks were consumed by 93.2 % students. Physical activity was carried out by only 62.6 % on a regular basis. There was history of non-communicable diseases in 40.4 % of the fathers of the students and 26.8 % in their mothers as shown in Table 2.

Table 2 Lifestyle and family history of non-communicable diseases among nursing students

	No.	%
Meals		
< 3 per day	27	11.5
3 per day	173	73.6
> 3 per day	35	14.9
Snacks		
< 2 per day	98	41.7
2 per day	118	50.2
> 2 per day	19	8.1
Skip breakfast		
Yes	131	55.7
No	104	44.3
Soft drinks		
Yes	219	93.2
No	16	6.8
Fast food		
Yes	226	96.2
No	9	3.8
Bakery items		
Yes	229	97.4
No	6	2.6
Physical activity		
Yes	147	62.6
No	88	37.4
Non communicable diseases among father		
Yes	95	40.4
No	140	59.6
Non communicable diseases among mother		
Yes	63	26.8
No	172	73.2

Table 3 BMI and Non Communicable diseases among fathers

BMI	NCD among Father					
	No		Yes		Total	
	No.	%	No.	%	No.	%
Underweight	76	58.9	53	41.1	129	100
Normal	7	38.4	11	61.1	18	100
Overweight	6	31.6	13	68.4	19	100
Obese	51	73.9	18	26.1	69	100
Total	140	140	95	40.4	235	100
P – 0.002						

Table 4 BMI and Body image satisfaction

BMI	Body Image Satisfaction					
	Satisfied		Not Satisfied		Total	
	No.	%	No.	%	No.	%
Under nutrition/ Normal	96	65.3	51	34.7	147	100
Overweight / Obese	38	43.2	50	56.8	88	100
Total	134	57	101	43	235	100
P < 0.001						

Out of the 88 overweight and obese students 31 (35.2 %) had history of non-communicable diseases in their fathers namely diabetes mellitus, hypertension, coronary heart disease. There was statistically significant association between BMI and non communicable diseases among fathers as shown in Table 3.The present study revealed that 56.8% of the students who were overweight and obese were not satisfied with their body image. A statistically significant association was found between BMI and body image perception as shown in Table 4.

DISCUSSION

Prevalence of overweight among the nursing students was 8.1 % and obesity 29.4 % in the present study. In a study done by Chhaya S (2012) on nursing students, overweight was 17.4 % and obesity 25.6 %. In another study done in South Africa on nursing students, overweight and obesity was 49.7 % (Van den Berg VL, 2012). A study done by Jagjeet Kaur (2008) on nursing students showed 9.16% overweight or obese. In a study done among medical students of same age group overweight was 19.1 % and obesity 22.1% which was higher than the nursing students (Chaitali G, 2013).

In the present study only 44.3% nursing students had regular breakfast. The study done among medical students showed that 56.1 % had breakfast regularly (Ganasegeran K, 2012). It is observed in the studies that students usually tend to skip breakfast which is an important part of the diet.

It was observed that 62.6 % students did physical activity similar to the study done by Chythra R Rao *et al* (2012) among medical students where 62 % students performed physical activity.

Students in this study, 56.8 %, who were overweight and obese were not satisfied with their body image. This may help in triggering action to enable them to develop healthy life style changes in order to improve their body image. Similar findings were observed in a study done by Goswami S (2012).

This present study revealed that there was a statistically significant association between overweight and obese students and history of non communicable diseases among their fathers. A study done on medical students also showed similar results (Chaitali G, 2013).

In a study done among American students it was observed that BMI increased with age and it was high in those who were physically inactive, though there was no such association in this study (Melissa N Desai, 2008).

CONCLUSION

Among the nursing students 37.5% were overweight or obese. Nurses are role models for bringing about a change in behaviour related to health of patients in hospitals as well as in the community. Therefore they need to practice healthy lifestyle themselves pertaining to balanced diet and physical activity. This will enable them to maintain or shift to a healthy weight as a primary level of prevention of non-communicable diseases among them in future. Nurses can conduct public education programmes and counseling sessions for creating awareness which is the need of the hour.

References

Chaitali G, Mangala S, Mini Jayan. Overweight and obesity and its determinants among medical students in Bangalore, India. Journal of Evolution of Medical and Dental Sciences. July 2013; 2(28: 5187-93).

Chhaya S, Jadhav P. Dietary pattern in relation to overweight and obesity among the medical and nursing students.

Indian Journal of Research and Reports in Medical Sciences. Jul-Sep 2012; 2(3): 9-12.

Chris Keyworth, Sarah Peters, Anna Chisholon, Jo Hart.Nursing students perceptions of obesity and behaviour change: Implications for undergraduate nurse education. Nurse Education Today.2013; 33: 481-85.

Dang M, Nguyen and Hashem B. El-Serag. The Epidemiology of obesity. Gastroentrol Clin North Am.Mar 2010; 39(1): 1-7.

Fact sheet N 311 updated August 2014. Available at: www.who.int/mediacentre/factsheets/fs311/en/obesity and overweight.

Ganasegeran K,Al-Dubai SA, Qureshi AM, Al-abed AA, Am R, Aljunid SM. Social and psychological factors affecting eating habits among university students in a Malaysian medical school-a cross-sectional study. Nutr J.2012 Jul; 11: 48.

Goswami S, Sachdeva S, Sachdeva R. Body image satisfaction among medical students. Ind Psychiatry J. July 2012; 21(2): 168-72.

HK Thakkar, SK Misra, SC Gupta, SK Kaushal. A study on prevalence of obesity among college going girls in Agra district of U.P. Indian J of Community Health.2009-2010; 21(2) :61-4.

Jagjeet Kaur, Indrajit Walia. Body mass index among nursing students. Nursing and Midwifery Research Journal. July 2008; 4(3): 102-6.

Kiss K, Meszaros Z, Mauvroudes M, Szmodis MB, Zsidegh M, Ng N, Meszaros J. Acta Physiol Hung. Dec 2009; 96(4) : 469-74.

Kokila Selvaraj, P Sivaprakasam. A study on the prevalence of overweight and obesity among medical students of Kanchipuram district. National J of Research in Community Medicine. July- Sep 2013; 2(2):140-4.

Marie Ng, Tom Fleming, Margaret Robinson *et al*. Global, regional and national prevalence of overweight and obesity in children and adults during 1980-2013: a systematic analysis for global burden of diseases study 2013.The Lancet. Aug 2014; 384(9945): 766-81.

Melissa N Desai, William C Miller, Betty Staples and Terrill Bravender. Risk factors associated with overweight and obesity in college students. J of American College Health. 2008; 57(1): 109-14.

Natalia Sira and Roman Pawlak. Prevalence of overweight and obesity and dieting attitudes among Caucasian and African American college students in Eastern North Carolina. A cross-sectional study. Nutr Res Pract. Feb 2010; 4(1): 36-42.

Pawalak R, Sovyanhadi M. Prevalence of overweight and obesity among seventh-day Adventist African American and Caucasian college students. Ethn Dis. Spring 2009; 19(2): 111-4.

Philip James. Obesity. In: Roger Detels, editor. Oxford textbook of Public Health, 5th ed. New York: Oxford University Press; 2009:1046-67.

Rao CR, Darshan B, Das N, Rajan V, Bhogun M, Gupta A. Practice of Physical Activity among Future Doctors. Int J Prev Med .2012 May; 3(5):365-69.

Soma Gupta, Tapobrata Guha Roy and Indranil Saha. Stress on body weight among undergraduate medical students. Indian J Community Med. Jul 2009; 34(3): 255-57.

Van den Berg VL, Okeyo AP, Dannhauser A, Nel M. Body weight, eating practices and nutritional knowledge amongst university nursing students, Eastern Cape, South Africa. African J Prm Health Care Fam Med. 2012; 4(1): 1-9.

****