

STUDY OF OBESE PERSONS PROFILE AT D.I. KHAN, NWFP, PAKISTAN

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ABSTRACT

Background: Obesity is considered as the most pressing but neglected public health problem. Rates of obesity are rising alarmingly in many parts of the world. The purpose of this study was to examine different factors as risk factors for obesity.

Material & Methods: This cross-sectional study was conducted at DHQ Teaching hospital, D.I.Khan, in July 2006. Obese persons attending the hospital were chosen using standard definition of obesity based on body mass index. 330 obese persons were interviewed with a structured questionnaire. The information was analyzed by descriptive statistical analysis.

Results: The age range was 35-45. Female gender was predominant 221 (67%). 257 (68%) belonged to urban community. 60% admitted that they had family tendency for obesity. 108 (33%) obese people used to take oil-rich foods while 66 (20%) were fond of sweets. 33 (10%) were using high-fiber diet in abundance. 82 (25%) were addicted to carbonated beverages. Food intake frequency was more than three times in 99 (30%) cases. 112 (34%) had habit of eating in between meals. 6 (2%) used to enjoy fast food. 257 (78%) told that there was no exertion in daily life. 49 (15%) were doing exercise to reduce their weight but regularity of exercise was only in 33 (10%). 108 (33%) were spending more than 4 hours daily in watching television. Income status was high in 66 (20%) as more than 30,000 rupees per month. 16 (5%) had a stress full life. 5 patients were using anti-psychiatric medications on prescription.

Conclusion: Obesity is more common in ladies. Majority of patients have a family history. Sedentary life style is a major risk factor for obesity.

Key words: Obesity, Exercise, Diet.

INTRODUCTION

Obesity has been stated as dangerous as terrorism and compared to the Black Death and massive severe acute respiratory syndrome (SARS) outbreak. Obesity is now considered as the most pressing but neglected public health problem. Rates of obesity are rising alarmingly in many parts of the world. World Health Organization refers to obesity as a global epidemic and declared that obesity is a chronic disease prevailing in both developed and developing countries.¹

More than 2.5 million deaths each year are related to obesity. By applying criteria of body mass index (BMI) more than 30, 320 million persons are calculated as obese, while 1.1 billion are overweight as having body mass index more than 25.²

Obesity accounts for 2-6 % of total health care costs in several developed countries. The true costs are undoubtedly much greater as not all

obesity related conditions are included in calculations.

This epidemic is also extended to Pakistan. Despite being a developing country, the prevalence of obesity in Pakistan is comparable to some of the developed countries.³

A study entitled "Prevalence of overweight and obesity and their association with hypertension and diabetes mellitus in Pakistan" conducted by Agha Khan University reported that 25 % of our adult population is overweight or obese. This study is based on re-analysis of National Health Survey 1990-1994 by using BMI criteria. The prevalence is higher in urban areas, affecting one third of men and nearly half the women.⁴⁻⁶

Health consequences of obesity are hypertension, diabetes mellitus, atherosclerosis, cerebrovascular disease, coronary heart disease, colorectal cancer, gout, osteoarthritis, cholelithiasis and sleep apnea.

Psychological and social problems associated with obesity include stigma of being 'obese', teasing directed towards obese persons may lead to low self-esteem.⁷⁻¹⁰

Obesity is a condition of excess body fat. Excess body fat can have a genetic or non-genetic basis. Genetic factors cannot explain the rapid increase in population prevalence of obesity. Thus large increase in obesity must reflect major changes in non-genetic factors. The important question is; what are the risk factors in addition to genetic/medical factors causing obesity. Our understanding of how and why obesity develops is incomplete.

Overall a variety of factors that play a role in obesity. This makes it complex health issue to address. Obesity is a result of positive energy imbalance for individual needs, over a period of time. The cause of energy imbalance for each individual may be due to combination of factors.^{11,12}

The purpose of this study was to examine different factors as risk factors for developing obesity.

MATERIAL AND METHODS

This cross-sectional study was conducted at DHQ Teaching hospital, D.I.Khan in July 2006. The sampling method was purposive. Obese persons attending the hospital were chosen using standard definition of obesity based on BMI.¹³ Obesity was defined as BMI more than 30.

435 persons were offered participation by omitting non-adult persons (less than 18 years) and pregnant women. 105 refused to answer the questionnaire and thus 330 persons were interviewed with a structured questionnaire.

Researchers collected the data in premises of hospital out door, near reception desk, with face-to-face interview. Height was measured in meters and weight in kilograms to determine BMI.

Taking obesity as a dependent variable, various independent variables were selected and analyzed like demographic characteristics, family history, type of food intake, eating habits, lifestyle, occupation, family customs, income status, stress, use of medications and associated conditions.

The information was analyzed by descriptive statistical analysis.

RESULTS

The study was carried out in 330 participants after applying standard definition of obesity and getting informed consent. Age range was 35-45. Female gender was predominant 221 (67%). 224

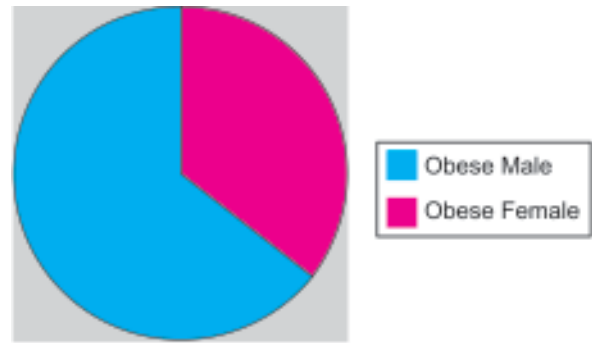


Fig. 1: Obesity distribution by gender.

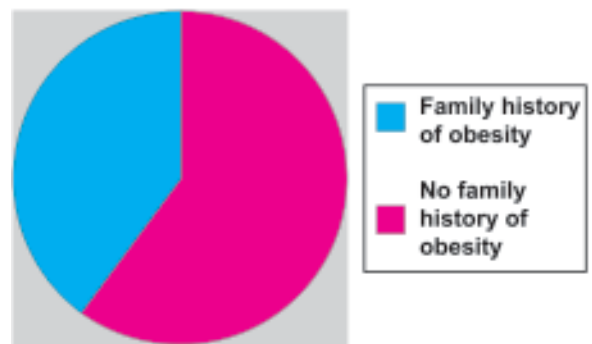


Fig. 2: Effect of family history on obesity.

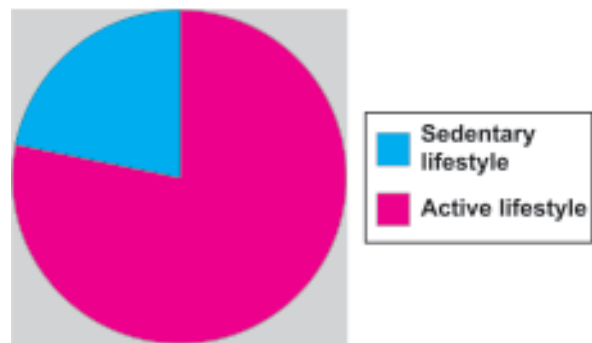


Fig. 3: Effect of Lifestyle on obesity.

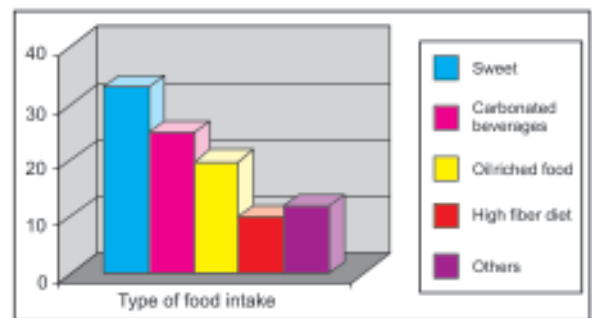


Fig. 4: Type of food consumed.

(68%) belonged to urban community. 141 (43%) were of Pathan ethnic origin.

198 (60%) admitted that they have family tendency of obesity. This tendency was present in parents 257 (78%) and in blood relations 92 (28%).

108 (33%) obese people take oil-rich foods while 66 (20%) were fond of sweets. 33 (10%) were using high fiber diet in abundance. 82 (25%) were addicted to carbonated beverages.

Food intake frequency was more than three times in 99 (30%) cases. 112 (34%) admitted that they were in habit of eating in between meals. 6 (2%) usually enjoy fast food.

90 (27%) were sharing their meals with family members daily in routine and 49 (15%) explored the fact that their family members usually take fat-predominant meals.

257 (78%) told that there was no exertion in their daily routine. 49 (15%) were having exercise to reduce their weight but regularity of exercise was found only in 33 (10%) of these. 108 (33%) were spending more than 4 hours daily in watching television.

66 (20%) were shopkeepers, 59 (18%) businessman, 42 (13%) students, 33 (10%) office clerks, 16 (5%) tailors and 13 (4%) teachers by profession.

Income status was high in 66 (20%) with earnings more than 30,000 rupees per month. 16 (5%) had a stress full life. 5 patients were using anti-psychiatric medications on prescription.

33 (10) were diabetics, 2 persons were having cushing syndrome and one female was receiving treatment for hypothyroidism.

DISCUSSION

Obesity is a progressive problem both in developed or developing countries. Pakistan is in transition, facing double burden of the disease. In South Asia, including Pakistan, social and environmental changes are occurring rapidly, with increasing urbanization, changing lifestyles and reduced physical activity^{5,6}.

In this study we examined the impact of different factors on the risk of developing obesity. The demographic characteristics of the study population revealed that age range was 35-45. It indicates that the major affected ones are in productive age group, which is of high concern.

In our study, females were more obese as compared to male gender. In women influence of heredity is even more important. Women have more fat than men do. Females in our society are less

active and usually confined to homes. Women traditionally prepare meals and may have frequent opportunity to consume and taste it. Women may also choose to cover their feelings and emotions with food addiction.

Obese persons belong mainly to urban area. In cities, there is more access to food and sedentary life style. Rising urbanization is one of the contributing factor.

It has been long known that the tendency to gain weight runs in families and certain ethnic groups. Many family members share not only genes but also diet and habits that may contribute to obesity.

High caloric diet was not significantly related to obesity in our data. 70% obese in our study ate the same as non-obese. Dietary factors were not associated strongly with obesity.

One of the most important results of this study was the dominance of the sedentary life-style among our subjects. This data indicates that decline in habitual activity might be a major factor rising the rate of obesity in our community.

In our study, there is no strong association between obesity and diabetes mellitus. 5% obese had a stressful life thus it reflects obese people have no more or fewer emotional problems.

CONCLUSION

Obesity is more common in ladies. Majority of patients has a family history. Sedentary life style is a major risk factor for obesity.

More research is required on special populations at high risk for obesity.

REFERENCES

1. <http://www.mejfm.com/journal/jul2004/Risk%20Factors%20of%20obesity.pdf>.
2. International Diabetic Federation. Diabetes and Obesity: Time to Act. International Diabetes Federation, Brussels: 2004, p.44.
3. National Health Survey of Pakistan 1990-994, health profile of people of Pakistan Islamabad: PMRC 1997, P-181.
4. <http://www.aku.edu/News/Archives/pr-10122006.shtml>
5. Debra N. Health Status of the Pakistani population. Am J Public Health 2001; 91: 1545.
6. Nanan DJ. The obesity pandemic- Implications for Pakistan. J Pak Med Assoc 2002; 52: 342-6.
7. Monterio P, Victora C, Barros F. Social, familial and behavioral risk factors for obesity in ado-

- lescents. Pan American J Public Health 2004; 16: 250-58.
8. Stice E., Presnell K, Shaw H . Psychological and behavioral risk factors for obesity onset in adolescent girls: A prospective study. Journal of Consulting and Clinical Psychology 2005; 73; 195-202.
 9. James ER, Barbara MR. Psychological risk factors for obesity among women in a family planning clinic. BMC Family Practice 2004; 5: 1471-2296.
 10. Bali K, Mishra GD, Crwfold D. Social Factors and obesity: an investigation of the role of health behaviors. Int J Obes Relat Metab Discard 2003; 27: 394-403.
 11. Roya K, Pour MAH, Sadry GH, et al. Obesity and associated modifiable environmental factors in Iranian adolescents: Isfahan Healty Heart Program- Heart Health Program from childhood. Pedriatics International 2003; 45: 435-42.
 12. Al-Saeed WY, Al-Dawood KM, Bukhari IA, et al. Prevalence and socioeconomic risk factors of obesity among urban female students in Al-Khobar city, Eastern Saudi Arabia 2003. Obesity Reviews 2007; 8: 93-99.
 13. Afridi AK, Khan A. Prevalence and etiology of obesity- an overview. Pak J Nutrition 2004; 3: 14-25.

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