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A STUDY TO ASSESS THE PREVALENCE OF OBESITY AND THE ASSOCIATED HEALTH PROBLEMS AMONG WOMEN RESIDING IN SELECTED URBAN AREAS IN RAJASTHAN

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INTRODUCTION

Obesity is a global burden, which significantly increases the risk of non- communicable diseases (NCDs). Overweight and obesity are major risk factors for a number of chronic diseases, including cardiovascular diseases such as heart disease and stroke, which are the leading causes of death worldwide. Being overweight can also lead to diabetes and its associated conditions, including blindness, limb amputations, and the need for dialysis. Rates of diabetes have quadrupled around the world since 1980.1 Carrying excess weight can lead to musculoskeletal disorders including osteoarthritis. Obesity is also associated with some cancers, including endometrial, breast, ovarian, prostate, liver, gallbladder, kidney and colon. The risk of these non-communicable diseases increases even when a person is only slightly overweight and grows more serious as the body mass index climbs.

Non communicable diseases kill 41 million people each year, equivalent to 71% of all deaths globally. Each year, more than 15 million people die from a NCD between the ages of 30 and 69 years; 85% of these "premature" deaths occur in low- and middle-income countries. 77% of all NCD deaths are in low- and middle- income countries. Cardiovascular diseases account for most NCD deaths, or 17.9 million people annually, followed by cancers (9.3 million), respiratory diseases (4.1 million) and diabetes (1.5 million). These four groups of diseases account for over 80% of all premature NCD deaths. However, obese individuals differ not only in the amount of excess fat that they store, but also in the regional distribution of the fat within the body. The distribution of fat induced by the weight gain affects the risk associated with obesity, and the kind of disease that results.

The 2030 agenda for sustainable development recognizes NCDs as a major challenge for sustainable development. As part of the agenda, heads of state and government committed to develop ambitious national responses, by 2030, to reduce by one-third premature mortality from NCDs through prevention and treatment.

Obesity is commonly defined as having too much body fat. A BMI of 30 or higher is the usual benchmark for obesity in adults. Obesity increases the risk of serious medical conditions. Treatments include changing what you eat, adding activity and mental health support.

Obesity is when you have excessive body fat. It's a chronic (long-term) and complex disease that can affect your overall health and quality of life. Obesity can lead to serious medical conditions. It can affect your self-esteem and mental health.

OBJECTIVE

- *Assess the prevalence of obesity among women.*
- *Assess the prevalence of obesity associated health problems among women.*
- *Find the association between prevalence of obesity and the associated health problems among women.*
- *Find the association between prevalence of obesity and selected socio personal variables among women.*
- *Find the association between obesity associated health problems and selected socio personal variables among women.*

HYPOTHESIS :

All at 0.05 level of significant

H1: There is a significant association between prevalence of obesity and associated health problems among women.

H2: There is a significant association between prevalence of obesity and selected socio personal variables among women.

H3: There is a significant association between obesity associated health problems and selected socio personal variables among women.

OPERATIONAL DEFINITION:

Prevalence: refers to the existing number of women with obesity out of the total subjects studied and expressed in frequency and percentage.

Obesity: refers to body mass index is more than or equal to 25 for women as per ICMR guidelines as measured by bio physiological measurements datasheet.

Associated Health problems: refers to existing physical, psychological and social health problems, experienced by women with obesity as assessed by checklist, rating scales and Rosenberg self-esteem scale. The associated health problems include:

Physical problems:

Cardiovascular system: CHD, HTN, MI, varicose veins, and dyslipidaemia. Respiratory system: sleep apnoea, exertional dyspnoea, wheezing at rest, COPD, asthma, and breathlessness.

Biophysical measurement: refers to height, weight, BMI, waist circumference, hip circumference and waist hip ratio as measured by inch tape, weighing machine, and BP is measured by aneroid sphygmomanometer.

Women: refers to females in the age group of 20 to 60 years residing in selected urban areas of Rajasthan.

Urban area: refers to selected areas under corporation of Rajasthan.

Socio personal variables: includes age, religion, marital status, education status, occupational status, socio economic status, physical exercise, and diet as assessed by structured interview schedule.

Research Methodology

The research approach used for this study is Quantitative approach. The researcher adopted A non-experimental descriptive survey design adopted. The study was conducted in selected Sikar area of Rajasthan. Sample for the present study consist of women aged 20 to 60 years, residing in Sikar area of Rajasthan. Sample size was 230 Woman living in selected area of Sikar, Rajasthan. The reliability of the tool was assessed using test-retest method by using descriptive and inferential statistics.

Result

Among 230 participants, 28.3% of participants were between 41-50 years of age, About 62.8% of participants belonged to Hindu religion. About 85.2% of participants were married and living together. About 54.80% of participants had 2 children. Among 230 participants, 32.2% had secondary education. Majority of the participants (64.8%) were home makers. Majority of the participants (92.6%) belonged to nuclear family. Among 230 participants, 60.0% of participants were APL category. Majority of the participants (91.3%) were taking mixed food. Among 230 participants, 20.0% were eating fast food more than 3 days in a week and 28.7% of participants were eating fast food less than 3 days in a week. Majority of the participants (83.5%) were not doing exercise. Among the 38 participants 50% participants were doing irregular and inadequate exercise and 42.1% participants preferred to do brisk walking exercise. Among 230 participants, 48.30% of participants were obese, 17.40% of participants were overweight and 4.3% of participants were under weight. Majority of the participants (77.8%) had abdominal obesity (WHR> 0.85). Among the participants, more than half (62.2%) were in high risk category to develop cardiovascular diseases (WC>88 cm). Among the 230 participants 46.80%and 16.80% participants with and without obesity had cardio vascular problems respectively, 55.00% participants with obesity had musculoskeletal problems whereas 16.00% participants without obesity had musculoskeletal problems and 63.10% participants with obesity had integumentary problems and 8.40% participants without obesity had musculoskeletal problems. Comparing to participants without obesity central nervous system problems were present among participants with obesity.

Discussion

This study showed that 48.30% of participants were obese, Majority of the participants (77.8%) had abdominal obesity these findings were concordance with a cross-sectional study to prevalence and associated risk factors of general and abdominal obesity in rural and urban women Urban women (n = 210) shown significantly higher prevalence of both general and abdominal obesity (30.9% and 58.6%, respectively).

This study showed that prevalence of overweight and obesity were 17.40% and 48.30% respectively, as defined by BMI, whereas the prevalence were 21.7% and 62.2% as defined by waist circumference. These findings were not concordance with a cross sectional study

conducted between 2008 to 2010 which showed that the prevalence of overweight and obesity were 24.4% and 2.7%, respectively, as defined by BMI, whereas the prevalence were 48.6% and 4.9% as defined by waist circumference.

This study shows that prevalence of obesity and abdominal obesity were 48.30% and 77.8% respectively. These findings were concordance with Phase I of the ICMR-INDIAB study was conducted in a representative population of three States; Tamil Nadu (TN), Maharashtra (MH) and Jharkhand (JH)] and one Union Territory (UT) Chandigarh (CH) of India among individuals ≥ 20 years of age from November 2008 to April 2010 shown that the prevalence of GO was 24.6, 16.6, 11.8 and 31.3 per cent among residents of TN, MH, JH and CH, while the prevalence of AO was 26.6, 18.7, 16.9 and 36.1 per cent, respectively.

Present study showed that 23.4% of participants with obesity had stage II hypertension and 9.9% of participants with obesity had diabetes mellitus these findings are concordance with a community-based, cross-sectional study carried out in five regions of India in 2012 which showed the prevalence of hypertension as 16% and diabetes was 9.5% among women.

Conclusion

Present study aimed to assess the prevalence of obesity and the associated health problems among women residing in selected Sikar areas in Rajasthan. Among the participants, 4.5 % of participants with obesity had sleep apnea and 9.9% of participants with obesity had breathlessness, 20.7% of participants with obesity had exertional dyspnea, 9.9% of participants with obesity had wheezing at rest, 1.8% of participants with obesity had history of COPD and 11.7 % of participants with obesity had history of asthma. History of sleep apnea, wheezing at rest and COPD were absent among the participants without obesity. Among 230 participants, 16.2% of participants with obesity had fatigability, 19.8% of participants with obesity had day time somnolence, 18% of participants with obesity had poor sleep, 11.7% of participants with obesity had history of migraine and 9% of participants with obesity had difficulty to sleep in supine position.

About 7.2% of participants with obesity had history of non- alcoholic fatty liver disease, 26.1% of participants with obesity were eating too much food without any control, 7.2% of participants with obesity had hemorrhoids, 2.7% participants with obesity had the history of hernia and hernia is absent in participants without obesity.