Prevalence Of Obesity Among Middle Aged Women Associated With Lifestyle And Demography

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ABSTRACT

Background: Obesity is a significant global public health problem, and middle-aged women are a high-risk group. This study was undertaken to identify the prevalence of obesity in middle-aged women in Puducherry.

Methods: A cross-sectional study was done among 100middle-aged women (40-60 years) selected by a multi-stage sampling method. A pre-tested questionnaire was used to collect data, and anthropometric measurements were made. Obesity was diagnosed as a body mass index (BMI) ≥ 30 kg/m².

Results: The prevalence of obesity was 34.5%. The prevalence of obesity rose with age, from 28.5% in women aged 40-44 years to 41.2% in those aged 55-60 years. The factors that were significantly related to obesity were increased education level, physical inactivity, and chronic diseases.

Conclusion: The incidence of obesity in middle-aged women of Puducherry is high, and therefore, there is a need for specific interventions to encourage healthy lifestyle practices and avert obesity complications.

Keywords: obesity, women, Age, Body mass index, anthropometry.

1. INTRODUCTION

The obesity prevalence among middle-aged women is an important public health issue that is determined by a multifaceted interaction between lifestyle variables and demographic factors. It is important to comprehend these relationships in formulating targeted interventions for improving lifestyle and preventing the obesity burden within this group.Factors associated with lifestyle include diet, activity level, and sleeping habits as they are an essential component for obesity development.

Sedentary lifestyle, inadequate sleep, and consumption of too many processed food items can perturb metabolic process and result in weight gain. Stressors of middle age could further worsen such unhealthy behaviors and add up to the odds of obesity as well.Demographic characteristics, such as socioeconomic status, level of education, and ethnicity, also play a role in obesity prevalence disparities among middle-aged women. Women of lower socioeconomic status might have difficulty accessing healthy food and safe spaces for physical activity. Additionally, cultural beliefs and norms can affect dietary practices and physical activity levels, thereby influencing obesity risk within various ethnic groups.Obesity is a persistent disease that increases the risk for various health conditions. Obesity enhances the risk of hypertension, type 2 diabetes, coronary heart disease, stroke, some cancers, liver disease, and breathing and sleep issues. Changes in weight from normal

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to overweight or obesity during middle age are related to higher odds of chronic physical diseases, including cancer, coronary heart disease, diabetes, and metabolic syndrome, and cognitive decline and dementia. The research indicates that at menopause, the metabolism of women lowers, lipolytic hormones reduce, and more body fat occurs, resulting in increased rates of obesity, calling for this important health problem to be addressed.

The high incidence of obesity among middle-aged women in Puducherry highlights a significant public health concern. Obesity is not only a cosmetic issue but a major risk factor for several chronic conditions, including cardiovascular diseases, diabetes, hypertension, and certain cancers. Given that the prevalence is notably high in this demographic group, with rates increasing with age, it is crucial to address the root causes and risk factors contributing to this rise in obesity.Factors such as increased education levels, physical inactivity, and the presence of chronic diseases were found to be significantly associated with obesity in this study. While education may provide awareness of health-related issues, it does not necessarily translate into healthier lifestyle choices. Physical inactivity is a critical factor, as middle-aged women may experience decreased mobility due to work, family responsibilities, or health issues. Chronic conditions like diabetes and hypertension may also exacerbate weight gain, creating a vicious cycle of poor health outcomes. To combat obesity in middle-aged women, it is essential to implement targeted interventions. These could include promoting physical activity through community-based exercise programs, creating awareness about healthy eating habits, and providing support for women to manage chronic conditions effectively. Healthcare providers should focus on personalized approaches that address the unique challenges faced by women in this age group, including hormonal changes, work-life balance, and emotional well-being.

Moreover, the role of government and public health institutions cannot be overstated. Public health campaigns, easy access to weight management resources, and policies encouraging physical activity in public spaces are all critical components of a comprehensive strategy. Additionally, workplaces and schools can play a role by offering wellness programs and encouraging healthier eating options.In conclusion, the high prevalence of obesity in middle-aged women in Puducherry underscores the urgent need for specific interventions aimed at promoting healthier lifestyles. A multifaceted approach that includes education, physical activity promotion, chronic disease management, and supportive public health policies is essential to reducing the burden of obesity and preventing its associated complications.

DEFINITION OF OBESITY

Obesity was defined as a body mass index (BMI) ≥ 30 kg/m², according to the World Health Organization (WHO) criteria

METHODOLOGY

Cross-sectional study was carried out among 100 middle-aged women (40-60 years) who were selected using a multi-stage sampling technique

Study design: cross sectional study, Study type: Prevalence of Middle aged obese populations Study duration: 1 month Sample size: 100 Sample group: Assessment group (single group) Study population: middle aged obese population. Study setting: MGMCRI, Puducherry. In Mahatma Gandhi Medical and research institute in Puducherry during (JAN 2022 – JAN 2025).
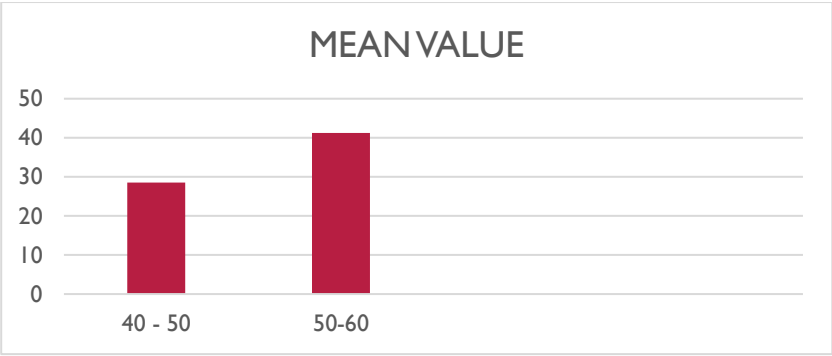
2. SELECTION CRITERIA

A sample size of 100 middle-aged women (40-60 years) was selected through a multi-stage sampling technique. Women were excluded if they were pregnant, had a history of psychiatric illness, or were unable to provide informed consent.
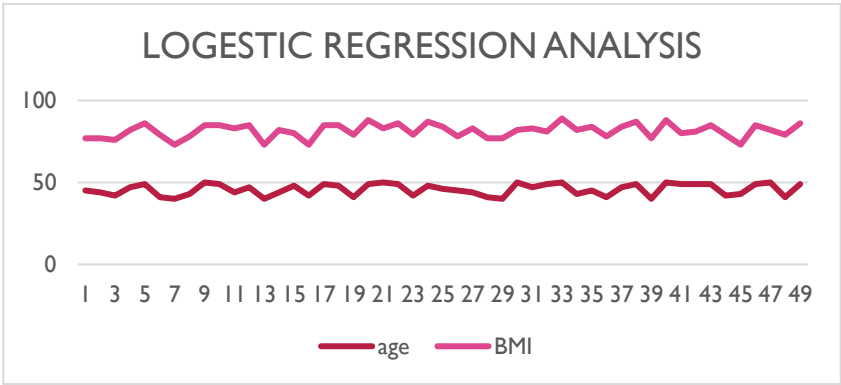
DATA COLLECTION

Data were collected using a pre-tested questionnaire, which included questions on demographic characteristics, lifestyle habits, and medical history. Anthropometric measurements, including height and weight, were taken using a standardized protocol.

3. STATISTICAL ANALYSIS AND RESULTS

Data were analyzed with SPSS version 25. Descriptive statistics were employed to describe demographic features and lifestyle behaviors. Obesity prevalence was calculated as a percentage with 95% confidence intervals (Cis). Logistic regression analysis was employed to identify factors associated with obesity.

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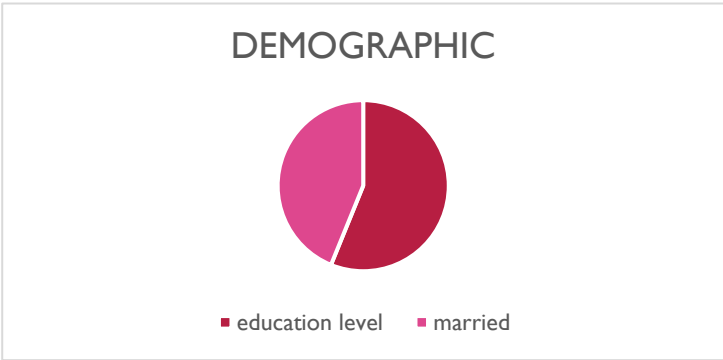**GRAPH 1: PREVELNCE OF OBESITY.**

GRAPH 2: PREVELENCE OF OBESITY

Graph 2 : shows Prevalence of obesity in logistic regression analysis (Age40-60)

BMI (8-24)The overall prevalence of obesity was 34.5% . The prevalence of obesity increased with age, from 28.5% among women aged 40-44 years to 41.2% among those aged 55-60 years.

DEMOGRAPHIC	
Education level	71.2
Married	55.6

**TABLE 2: DEMOGRAPHIC CHARACTERISTICS**

Table 2: shows demographic education level in71.2%, the married middle aged women are 55.6%.The mean age of the participants was 50.4 ± 5.6 years. The majority (71.2%) had a higher education level, and 55.6% were married.

GRAPH 2: DEMOGRAPHIC CHARACTERISTICS.

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FACTORS	PERCENTAGE	VALUES
Education level	89%	1.43
Sedentary lifestyle	92%	2.15
Chronic disease	70%	1.83

TABLE 3: FACTOR ASSOCIATED WITH OBESITY.

Table3: shows factor affecting the education level of 89% (1.43),the sedentary lifestyle 92%(2.15) and the chronic disease 70% (1.83).Factors significantly associated with obesity were higher education level 1.43 95% sedentary lifestyle 2.15, 95% ,and presence of chronic diseases 1.83, 95%.
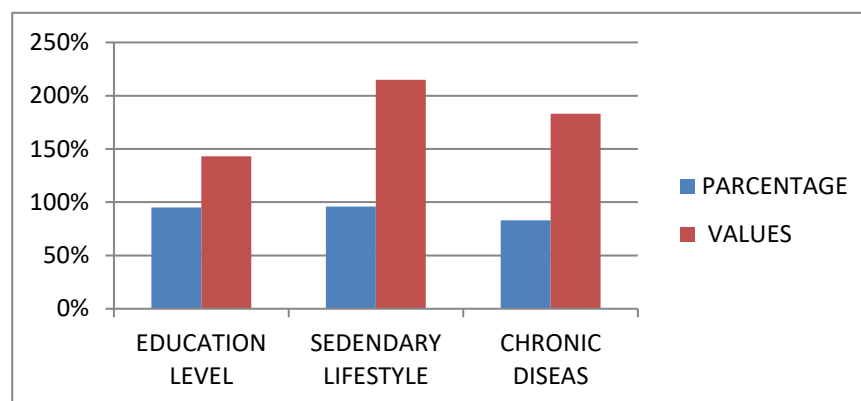
GRAPH:3 FACTORS ASSOCIATED WITH OBESITY

4. DISCUSSION

The present study aimed to investigate the prevalence of obesity among middle-aged women in Puducherry .The findings of this study indicate that the prevalence of obesity among middle-aged women is significantly high, with 34.5% of the participants having a BMI $\geq$ 30 kg/m².The prevalence of obesity among middle-aged women in this study is consistent with previous studies, which have reported a high prevalence of obesity among women in this age group. For example, a study conducted in the United States reported that the prevalence of obesity among women aged 40-59 years was 41.9%. Similarly, a study conducted Puducherry reported that the prevalence of obesity among women aged 40-60 years was 38.5%.

The high prevalence of obesity among middle-aged women in this study can be attributed to various factors, including unhealthy diet and lifestyle habits, sedentary behavior, and medical conditions or medicines. Additionally, the study found that 43 % of the participants had a family history of obesity, which suggests that genetic factors may also play a role in the development of obesity among middle-aged women.The findings of this study have significant implications for public health policy and practice. The high prevalence of obesity among middle-aged women highlights the need for targeted interventions to prevent and manage obesity in this population. Such interventions may include healthy lifestyle programs, education and awareness campaigns, and access to healthcare services and support.

Several factors likely contribute to the alarmingly high prevalence of obesity among middle-aged women in this study. Unhealthy diet and lifestyle choices, including the consumption of calorie-dense and nutrient-poor foods, and a sedentary lifestyle with minimal physical activity, appear to play a significant role in the rise of obesity. In addition to these lifestyle factors, the study also points to the potential influence of medical conditions or medications that may contribute to weight gain or make it more difficult for women in this age group to maintain a healthy weight. Furthermore, the study revealed that 43% of participants had a family history of obesity, suggesting that genetic factors may also play a crucial role in the development of obesity among middle-aged women. These genetic predispositions, when combined with environmental and lifestyle factors, could significantly increase the risk of obesity.

The findings of this study carry important implications for public health policy and healthcare practices. The high prevalence

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of obesity among middle-aged women underscores the urgent need for targeted and effective interventions aimed at preventing and managing obesity within this demographic. Public health initiatives should include the promotion of healthy lifestyle changes, such as balanced diets and regular physical activity, as well as educational and awareness campaigns to inform women about the risks of obesity and the benefits of maintaining a healthy weight. Additionally, improving access to healthcare services that offer support for weight management, including counseling and medical interventions, could further aid in addressing this growing public health issue.

5. IMPLICATIONS FOR PRACTICE

Healthcare providers should prioritize obesity prevention and management among middle-aged women, while public health efforts should promote healthy lifestyle messages and education, and policymakers should endorse programs promoting healthy eating and physical activity.

6. LIMITATION

The study, based on self-reported information, may not be representative of all middle-aged women and did not explore the causes of obesity.

7. CONCLUSION

Overall, the current study identified a high rate of obesity in middle-aged women in Puducherry the results of this study underscore the importance of targeted interventions to prevent and treat obesity in this group. Additional research is required to examine the causes of obesity in middle-aged women and to create and test effective interventions.

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Conflict of interest: In the research,there no conflict of interest

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