Prevalence of Obesity and Associated Risk Factors in South African Employees

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Abstract : Background: Obesity associated comorbidities increase the risk of morbidity and mortality among employees in the workplace. Objectives: The study aimed to determine the prevalence of obesity and comorbidities like diabetes, hypertension, and hypercholesterolemia associated with obesity within the workplace in South Africa. Methods: A total of 17359 male (n = 8561) and female (n = 8798) employees, aged between 18-64 years (40.8 \pm 11.0), from various corporate and industrial companies in South Africa participated in the study. Subjects were assigned to one of five body mass index (BMI) categories, according to their BMI: normal weight, BMI of 18.5–24.9 kg/m² (n = 7338); overweight, BMI of 25.0–29.9 kg/m² (n = 6323); obese class I, BMI of 30.0-34.9 kg/m² (n = 2552); obese class II, BMI of 35.0-39.9 kg/m² (n = 782); and obese class III, BMI of ≥ 40 kg/m² (n = 364). Height, weight, blood pressure, random blood glucose, and total cholesterol were measured. Results: The prevalence of normal weight men was 29.2% and women 55.0%; overweight men 46.4% and women 26.7%, obese men 24.4% and women 18.3%. A significant association (p<0.01) of BMI with diabetes, systolic and diastolic hypertension, and hypercholesterolemia were noted. Conclusion: Obesity is strongly associated with adverse comorbidities that may impact employees' quality of life and performance. If unaddressed, it can increase comorbidities, not only affecting the bottom line of companies but causing morbidity and mortality, including sudden death.

Keywords: body mass index, cholesterol, blood glucose, workplace

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