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Prevalence of metabolic syndrome and associated risk factors among female academic and non-academic staff of University of Jaffna, Sri Lanka

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Background: Central obesity, hyperglycaemia, dyslipidaemia, and hypertension are among the metabolic and physiological disorders that make up Metabolic Syndrome (MS).
Objective: To determine the prevalence of MS and associated risk factors among the female academic and non-academic staff who are working at the University of Jaffna, Sri Lanka.
Methods & Materials: It was a laboratory-based descriptive cross-sectional study. Among the 378 staff (academic and non-academic) of the UOJ, a stratified proportional population random sampling method was performed to select the staff from each faculty and administration of the main premises. Fasting plasma glucose, serum triacylglycerol, and serum HDL levels, height, weight, waist circumference, skinfold thickness, and blood pressure were measured. Body mass index and body fat percentage were calculated. A self-administered questionnaire was used to collect the data required to analyse the risk factors associated with MS. IDF guidelines were used to identify MS. Descriptive statistics and chi-square test were used considering $p<0.05$ as statistically significant.
Results: The overall prevalence of MS was 55%, non-academic staffs (69%) had a significantly higher prevalence than academic staffs (35.7%) ($p<0.001$). Among the total population, age >50 years (81.3%, $p<0.001$), Sri Lankan Tamil (56.7%, $p=0.624$), married (79.6%, $p<0.001$), low socioeconomic status [secondary education (100%, $p<0.001$), and income LKR ≤ 50,000 (71.9%, $p=0.014$)], and living in an urban area (76.8%, $p<0.001$) was positively associated with the occurrence of MS. Participants with a sedentary lifestyle, positive family history (obesity (82%, $p<0.001$), diabetes (75.6%, $p<0.001$), hypertension (84%, $p=0.001$), CVD (83.9%, $p<0.001$), mixed diet (71.6%, $p<0.001$), sleep inadequacy (85%, $p=0.001$), increased BMI [obese (100%), overweight (73.8%)] ($p<0.001$) and increased body fat % (93.3%, $p<0.001$) had significantly increased risk of developing MS. However, the active lifestyle, vegetarian diet (95.8%, $p<0.001$), and adequate sleep (52.5%, $p<0.001$) lead to significantly decreased levels of MS. Low serum HDL (95.2%, $p<0.001$), central obesity (91.7%, $p<0.001$), hypertension (91.3%, $p<0.001$) hypertriacylglycerolemia (90%, $p<0.001$), and hyperglycaemia (71.4%, $p<0.001$) were observed in subjects who had MS.
Conclusion: Increasing age, living in the urban areas, married, physical inactivity, consuming mixed diet, inadequate sleep, positive family history, and obesity were all important factors associated with the occurrence of MS among female academic and non-academic staff.
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