

RISK OF OBESITY AMONG ADULTS IN JAFFNA DISTRICT

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Objective: The aim of this study was to identify the risk of obesity among adults (above 18 years) in Jaffna District.

Methods: This was a community based cross sectional descriptive study: multi stage stratified cluster sampling. The first stage of sampling the population was stratified into urban and rural sectors. The primary sampling unit was a Grama Niladari division (GND). Considering proportion of the population, 7 and 25 clusters were selected from the urban and rural sectors respectively. In each GND, selected unit of enumeration was a household. Only one adult from each identified household was randomly selected. Anthropometric measurements were taken using standard methods. The sample size was 511. Of them, 224 (43.8%) were males.

Results: Mean ages of the study population, males and females was 45.65(± 14.46), 47.51(± 14.98) and 44.20 (± 13.89) years respectively. Average Body Mass Index (BMI) was 23.04(± 4.31), 22.82(± 4.06) and 23.21 (± 4.49) kg/m² in the study population, males and females respectively. Of them, 14.1(n=72), 38.2 (n=195), 24.3 (n=91) and 29.9% (n=153) were underweight (<18.5 kg/m²), normal weight (18.5-22.9 kg/m²), overweight (23-24.9 kg/m²) and obese (>25

kg/m²) respectively. Among the obese subjects, 81% (n=124) was class-1 obese (25-29.9kg/m²). Mean Waist Circumference (WC) was 81.83(± 12.73) cm and it was 83.26(± 13.83) cm in males and 80.73 (± 12.86) cm in females. Prevalence of central obesity (WC for males ≥ 90 cm, females ≥ 80 cm) was 23.9% (n=122) ; 25.8% among males and 22.3% among females. Mean hip circumference was 90.40(± 14.68) cm. Average Waist-Hip Ratio (WHR) was 0.912(± 0.092) in males and 0.868(± 0.095) in females. Prevalence of higher WHR (WHR ≥ 0.90 in males and ≥ 0.85 in females) was 47.6% and it was 58% (n=130) in males and 39.4% (n=113) in females. Mean Waist-Height Ratio (WHtR) was 0.524(± 0.0806). Prevalence of abnormal WHtR (>0.5) was 63.8% ; 54% in males and 71.4% in females.

Conclusion: more than half of the Jaffna population studied were overweight or obese. Considerable proportion of the population had higher WHR and WHtR than the cut off values.

Ethical clearance was obtained from the Ethical Review Committee, Faculty of Medicine, University of Jaffna. Written consent was obtained from each participant.

Funding source: Medical Faculty Development Fund, Faculty of Medicine, University of Jaffna.