

STUDY ON DISTRIBUTION OF BODY MASS INDEX, WAIST CIRCUMFERENCE WITH THE ASSOCIATION OF NON-COMMUNICABLE DISEASES AMONG THE NURSING OFFICERS WORKING AT TEACHING HOSPITAL, JAFFNA

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Body Mass Index (BMI) and Waist Circumference (WC) are simple tools to assess the status of obesity, and obesity related, metabolic and cardio vascular disease risk status. BMI and WC cut off values for South East Asian population were adopted from World Health Organization (2004) and International Diabetic Federation (2006), respectively. An institutional based cross-sectional descriptive study was carried out at Teaching Hospital, Jaffna, throughout February, 2013, to study the distribution of BMI and WC in relation to non-communicable diseases, among 396 nursing officers. The response rate was 86.4% ($n=342$), where 224 were females (65.5%). Self-reported questionnaire was used to collect details of diseases and anthropometric measurements (Height, Weight and WC) were used to find out BMI and WC. Statistical Package SPSS, version 16.0 was used to analyze data and p -value below 0.050 was considered as statistically significant. Ninety eight (83.1%) male and 168 (75.0%) female nursing officers did not complain of any non-communicable disease condition. Of the subjects, 26 nursing officers (7.6%) were having Diabetes Mellitus alone or with other conditions, such as Dyslipidemia, Cardio vascular diseases, Thyroid disease, Asthma. Twenty one nursing officers (6.1%) had positive history for Dyslipidemia alone/ with other conditions and 09 (2.6%) for Cardio vascular diseases. The male and female subjects who did not complain of any disease condition had similar mean BMI, 23.8 ± 3.4 and 23.6 ± 4.2 kg/m², respectively. Among males higher BMI value [$30.5 (\pm 1.7)$ kg/m²] was seen in the subjects who had Diabetes Mellitus with Dyslipidemia condition, while least BMI value (23.1 kg/m²) was observed in one subject who had Cardiovascular diseases alone. Among female nursing officers higher BMI value (30.6 kg/m²) was found in a subject who had Diabetes Mellitus with Cardio vascular diseases and Thyroid disease condition, while least BMI value (18.9 kg/m²) was observed in a subject who had Diabetes Mellitus with Asthmatic condition. Regarding WC, the male and female nursing officers who did not complain of any disease were having mean WC value of $88.0 (\pm 9.5)$ and $84.2 (\pm 11.1)$ cm, respectively. Among the male nursing officers higher WC value was seen in the subjects who had Diabetes Mellitus with Dyslipidemia condition [$105.3 (\pm 0.5)$ cm], while least WC value [$87.7 (\pm 13.5)$ cm] was observed in the subjects who had Asthmatic condition. Among female nursing officers higher WC value (100.8 cm) was found in the subjects who had Diabetes Mellitus with Cardio vascular diseases and Thyroid disease condition while least WC value (73.2 cm) was observed in the subjects who had Diabetes Mellitus with Asthmatic condition. Two hundred and sixty six nursing officers (77.8%) did not complain of any non-communicable disease condition and the male nursing officers who were having non-communicable disease conditions showed statistically significant relationship with both BMI ($p= 0.041$) and WC ($p= 0.000$).