

Relationship between anthropometric measurements and duty pattern of married Tamil nursing officers working at Teaching Hospital, Jaffna

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Background: Duty pattern of nursing officers may affect the life style, and may lead to abnormal changes in body weight, waist circumference (WC), Body Mass Index (BMI) and Waist to Height Ratio (WHtR). The aim of this study was to examine the influence of duty pattern on BMI, WC and WHtR of the married Tamil Nursing Officers.

Methods: An institutional based cross-sectional descriptive study was carried out at Teaching Hospital, Jaffna, Sri Lanka.

Results: Among the 322 Tamil Nursing Officers (as the Sinhala officers are less in number, they were not considered), 190 nos. were married and 129 nos. (67.9%) were females. The numbers of males and females belong to the age groups of 20-30, 31-40, 51-60 years were 12 & 22; 20 & 43; 18 & 28; and 11 & 36 respectively. The mean body weight, BMI, WC and WHtR of males [69.1 (± 11.7) kg, 24.1 (± 3.6) kgm⁻², 89.0 (± 9.9) cm & 0.5 (± 0.1)] and females [62.8 (± 12.0) kg, 24.3 (± 4.0) kgm⁻², 87.5 (± 10.7) cm and 0.5 (± 0.1)] did not differ significantly. Males of 41-50 years had highest mean body weight (77.1 \pm 8.4 kg), BMI (26.6 \pm 2.8 kgm⁻²) and WC (96.0 \pm 8.0 cm), while those of 31-40 and 41-50 years of age had highest WHtR 0.6 (± 0.1). Among the females those who were of 31-40 years had highest body weight (67.2 \pm 1.3 kg) and WHtR (0.6 \pm 0.1), while of 41-50 years had highest value of BMI (26.1 \pm 4.1 kgm⁻²), WC (93.4 \pm 10.1 cm) and WHtR (0.6 \pm 0.1). Of the males and females 86.9 (53 nos.) and 73.6% (95 nos.) had continuous shift duty. It was observed that the highest body weight (92.0 kg), BMI (33.4 kgm⁻²), WC (111.0 cm) and WHtR (0.7) were obtained in a male of 31-40 years who does single duty. Among the females (31-40 years of age), who skipped night duty had highest body weight (74.1 \pm 1.9 kg); while BMI (30.0 \pm 1.2 kgm⁻²), WC (101.7 \pm 0.5 cm) and WHtR (0.7 \pm 0.1) were highest among those who were of 51-60 years.

Conclusion: The results indicate that the nursing officers those who perform continuous shift duty do not have abnormal anthropometric measurements while those who skip continuous shifts seems to behaving sedentary life style and have abnormal anthropometric measurements. This is different from majority of the previous work carried out in other countries.

Keywords: Body Mass Index, Waist Circumference, Nursing Officers, Waist to height ratio, Duty pattern