

Abstract: Section C (Medical Sciences)

C 1

Study on the relationship between Obesity and Overweight and the duty pattern among the Nursing Officers working at Teaching Hospital, Jaffna

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Obesity is a global public health problem and related to sedentary life style. Escalating rates of overweight and obesity are also taking a toll in Asian countries that have historically had much lower rates. The aim of this study is to estimate the prevalence of obesity and overweight relating to duty pattern of the Nursing Officers of Teaching Hospital, Jaffna. An institutional based cross-sectional descriptive study was carried out at Teaching Hospital, Jaffna, during February, 2013. Self-administered questionnaire and anthro-parameters were used for this study. Data was analyzed using Statistical Package for Social Sciences (SPSS), version 16.0 and P value below 0.050 was considered as statistical significant. Response rate was 86.4% (n=342), and 224 (65.5%) of this subjects were females. Among the study population only 08 (2.3%) Nursing Officers were avoiding night duty, while 25 (7.3%), 129 (37.7%), 180 (52.6%) Nursing Officers were doing single duty, seldom double duty and frequently double duty respectively. The mean BMI of male and female Nursing Officers were 24.1 (± 3.5) and 24.1 (± 4.3) kg/m² respectively. Higher BMI value was observed among the male Nursing Officers [25.3 (± 5.6) kg/m²], who did only single duty in a week and the female Nursing Officers [27.2 (± 4.2) kg/m²] who were *avoiding night duty*. *The mean BMI of the Nursing Officers* who were doing double duty seldom and frequent showed similar BMI values (23.8 ± 4.0 and 24.0 ± 3.9 kg/m² respectively). Statistically no significant relationship was found between the duty pattern and BMI. Of the Nursing Officers, who were doing single duty, 12 (48.0%) Nursing Officers had normal weight, while 13 (52.0%) had with overweight and obesity. Among those, who were skipping night duty, 01 (12.5%) and 02 (25.0%) were underweight and normal weight respectively, while 05 (62.5%) were overweight or obese. Among the study population, who were doing seldom double duty, 10 (7.8%) and 75 (58.1%) were under weight and normal weight respectively, while 44 (34.1%) had overweight or obesity. Among the study population, who were doing double duty frequently, 12

Abstract: Section C (Medical Sciences)

(6.7%) and 99 (55.0%) showed underweight and normal weight respectively, while 69 (38.4%) were overweight or obesity. From the results no statistically significant relationship was found between the duty pattern and obesity status.

Mean WC of male and female Nursing Officers were [88.9 (\pm 9.8) cm] and [86.0 (\pm 11.1) cm] respectively. Lower WC value was observed among the male Nursing Officers [88.1 (\pm 9.7) cm], who were doing double duty frequently in a week and the female Nursing Officers [84.5 (\pm 11.0) cm] who were doing double duty seldom, while higher WC value was observed among the males [94.5 (\pm 12.8) cm] who were doing single duty and the females [95.8 (\pm 9.9) cm] who were avoiding night duty. No statistically significant relationship was found between the duty pattern and the Waist Circumference of Nursing Officers. Among the male Nursing Officers who were doing frequent double duty, seldom double duty, single duty and skipping night duty were having central obesity 39 (52.7%), 15 (42.9%), 03 (60.0%), 01 (25.0%) respectively. All of the females who were doing single duty (20) and skipping night duty (04) showed central obesity. Among the females 63 (67.0%), 71 (66.9%) Nursing Officers who were doing double duty seldom and frequently respectively showed central obesity. Only females showed statistically significant relationship between the duty pattern and central obesity (p value= 0.010).

Key words: Nursing Officers, Duty pattern, Body Mass Index, Obesity, Waist Circumference, Central Obesity