Prevalence and Distribution of Body Mass Index Among Hospital Staff at Kunak Hospital, Sabah, Malaysia

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Abstract:

Introduction: Overweight and obesity among healthcare workers are an increasing public health concern in Malaysia. Despite their role in promoting healthy lifestyles, healthcare workers may face occupational demands that make maintaining a healthy weight challenging. However, evidence on Body Mass Index (BMI) patterns among staff working in district hospitals, particularly in Sabah, remains limited. This study examined the prevalence of different BMI categories and their distribution according to selected sociodemographic and occupational characteristics among staff at Kunak Hospital, Sabah, Malaysia.

Materials and Methods: A cross-sectional study was conducted among 142 clinical and non-clinical staff at Kunak Hospital using stratified random sampling, with a response rate of 94.7%. Sociodemographic and occupational information was collected using a structured self-administered questionnaire. Height and weight were measured objectively, and BMI was calculated and classified according to World Health Organization criteria. Associations between BMI categories and categorical variables were examined using the chi-square test of independence. Monte Carlo-simulated exact tests were used where more than 20% of expected cell counts were below five. Statistical significance was set at $p < 0.05$.

Results: More than half of the participants had a normal BMI (54.2%, n = 77), while 24.6% (n = 35) were overweight, 16.2% (n = 23) were obese, and 4.9% (n = 7) were underweight. Overall, 40.8% of the hospital staff were either overweight or obese. BMI category differed significantly by gender ($\chi^2 = 8.28$, df = 3, $p = .041$). Female staff had higher proportions of overweight (31.2% vs. 10.9%) and obesity (16.7% vs. 15.2%) compared with male staff, while a larger proportion of male staff had a normal BMI (69.6% vs. 46.9%). BMI category was also significantly associated with whether work schedules disrupted eating habits ($\chi^2 = 14.02$, df = 3, $p = .003$), with higher proportions of overweight and obesity among staff who reported disrupted eating patterns. Ethnicity was significantly associated with BMI category based on an exact test ($p = .026$); however, the small number of participants in some ethnic groups warrants cautious interpretation. No significant associations were observed for age group, education level, marital status, monthly income, job position, working hours, or shift-work status (all $p > .05$).

Conclusion: Overweight and obesity affected approximately two in five staff members at this district hospital. The findings point to gender and work-related disruption of eating patterns as potentially important areas for workplace health promotion. Hospital-based wellness programmes should consider the practical demands of healthcare work and incorporate strategies that support healthy eating and weight management among staff.

Keywords:
Body Mass Index, Healthcare Workers, Overweight, Obesity, Occupational Health.