WAIST-TO-HIP RATIO, BODY MASS INDEX AND HYPERTENSION AMONG ADULTS IN THE SAN RAFAEL CATCHMENT AREA IN MIAG-AO, ILOILO

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ABSTRACT

A cross sectional study was conducted among 169 randomly selected adults of selected barangays served by the San Rafael Health Center in Miagao, Iloilo. The study determined the relationship of anthropometric measures Body Mass Index and Waist to Hip Ratio with hypertension. Several biological and socio-demographic variables including age, physical activity, family history, family income, smoking and alcohol consumption were studied to determine their possible association with hypertension. These were analyzed with binary logistic regression for their possible association with hypertension.

The prevalence of hypertension in the San Rafael Catchment Area was found to be 47.3%. This value is greater than the 22% national prevalence obtained in the 6th National Nutrition Survey of Filipino adults in 2003-2004. A higher prevalence of hypertension was found to be higher among males (51.4%) than in females (44.2%). the prevalence of hypertension obtained using BMI as an indicator of overweight and obese individuals was 51.2%. On the other hand, the prevalence of hypertension using WHR as a measure of android obesity was found to be lower (45.6%).

Based on analysis with binary logistic regression, none of the confounding factors (sex, age, family history, physical activity, smoking and alcohol consumption) was significantly associated with hypertension. Body Mass Index was used in the study to identify those who were overweight and obese and Waist to Hip ratio to identify those who had android obesity. Based on body mass index, the prevalence of overweight and obesity

was found to be 15.38%. The prevalence of android obesity based on Waist to Hip Ratio was found to be 40.24%.

Body Mass Index was positively correlated to SBP but not to DBP based on analysis by linear regression. However, low R squared values show that BMI is a poor indicator for hypertension. Likewise, WHR was positively correlated to both SBP and DBP by linear regression, but was also found to be a poor indicator of hypertension. The results obtained recommend further study in the San Rafael Catchment area. The prevalence of hypertension and android obesity are found to be much higher than national statistics. However, no significant relationship between the anthropometric measurements and hypertension could be drawn from the present study.