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GENDER, BODY MASS INDEX AND WAIST TO HIP RATIO AND INHIBITORY CONTROL IN A SAMPLE OF YOUNG ADULTS IN COLOMBO DISTRICT, SRI LANKA

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This study was conducted to determine association between inhibitory control, gender, body mass index (BMI) and waist to hip ratio (WHR) in a sample of young adults (21-25 yrs) living in Colombo District, Sri Lanka. Inhibition was assessed via stroop task (ST), go/no-go task (GT) and stop signal tasks (SST) and number of errors were calculated to determine the level of inhibition. Differences in mean scores was assessed through t test with $p < 0.05$ significant level.

Study sample consists of 77 young adults of which 52% are females. Mean age was 23.32 ± 1.53. Mean BMI was 25.30 ± 5.11, of which 60% were either overweight or obese. Mean WHR for males and female were $1.00 \pm .08$ and $1.00 \pm .07$ respectively. The mean scores of the incorrect responses in incongruent trials in ST, commission errors in SST and incorrect responses in GT tasks were 11.34 ± 4.59, 2.28 ± 1.58 and 0.57 ± 0.87 respectively. The significant difference was observed in means scores in ST with normal weight (M=7.71 ± 3.24) and overweight/obese (M=13.78 ± 3.65); p=0.001 while mean scores in SST and incorrect responses of GT with normal weight (M=1.96 ± 1.51 &0.55 ± 0.75) and overweight/obese (M=2.50 ± 1.61 &0.56 ± 0.85) were not statistically significant.

Furthermore, significant difference was observed in means score in ST and SST between male normal WHR (M=9.10 ± 4.70 & 1.40 ± 1.57) and high WHR (M=12.41 ± 3.65 & 2.59 ± 1.50); p=0.04, while in female WHR, significant difference was observed between mean scores in ST in normal WHR (M=7.69 ± 4.09) and in high WHR (M=12.85 ± 4.55); p=0.01.

The young adults in the study sample who were overweight/obese and high WHR had poor inhibitory control when compared with normal BMI and WHR.