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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±.08 and 1.00±.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.