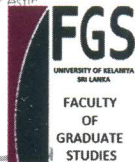


# Discourse Values of Sri Lanka: Reconciliation, Development, Equality & Pluralism

15th Annual Research Symposium  
Oct: 30-31, 2014

## Book of Abstracts



FACULTY OF GRADUATE STUDIES, UNIVERSITY OF KELANIYA

## A study on selected biometrics and central obesity indices among overweight and obese adult women

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The study was to analyze the relationship between body mass index (BMI) of overweight/obesity adult women with central obesity indices such as waist circumference (WC), Hip circumference (HC), waist-to-hip ratio (WHR) with lipid profile such as total cholesterol (TC), high-density lipoprotein (HDL), triglyceride (TG) and low-density lipoprotein (LDL). Percentage of overall abnormal lipid levels and low haemoglobin level in overweight and obese were also analyzed. Female adults with overweight (BMI between 25 -30 Kg/m<sup>2</sup> or obese (BMI over 30 Kg/m<sup>2</sup>) and the ages ranged between 18- 60 years were included in this study. The subject studied constituted a convenience sample of 121 representing different socio-economic status. Measurements; Body weight, height, waist and hip circumferences, blood pressure, pulse, lipid profile with TC, HDL, TG, LDL and Hb percentage were investigated. The results showed that 63.6% with high LDL-C, 59.1 % with high TC, 18.2 % with high TG and 43.2% with low HDL-C. Haemoglobin levels of the participants were 47.9% and it is below the range of cut off value given by WHO. Correlation between BMI and WC, HC, WHR was analyzed separately. According to the results obtained BMI showed a strong positive correlation with WC and HC,  $n(121) = 0.8, p < 0.01$  and  $n(121) = 0.838, p < 0.01$  respectively. Analysis of correlation between WC with HC and WHR indicated strong positive correlation,  $n(121) = 0.809, p < 0.01$  and  $n(121) = 0.442$  respectively. TC and LDL were strongly positively correlated,  $n(121) = 0.895, p < 0.01$ , but the HDL was inversely associated with TG and LDL  $P = -0.072, P = -0.184$  respectively. TG was inversely associated with LDL-C ( $P = -0.072$ ). Concurrently, the abnormally highest mean of WC  $105.4 \pm 11.7$ cm and the highest mean of waist to hip ratio  $0.97 \pm 0.05$  also found. In the present study the results revealed that more than half of overweight and obese adult women had abnormal lipid levels and nearly half of overweight and obese adult women had low hemoglobin concentration. The present study revealed a higher percentage of body fat across a range of waist circumference values. The mean waist circumference, hip circumference and waist to hip ratio were significantly higher than the cut off points reported by WHO (2008).

**Keywords:** Body mass index, Total cholesterol, Triglycerides, High density lipoprotein cholesterol, Low density lipoprotein cholesterol.

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