## **ABSTRACT**

**Introduction:** Overweight and obesity are well known risk factors for non-communicable diseases. Postpartum weight retention is associated with overweight and obesity among postpartum mothers. Therefore, women are at more risk to non-communicable diseases.

**Objectives:** To determine the prevalence of overweight and obesity and to describe associated factors among six months of postpartum mothers in Anuradhapura district

**Methods:** A descriptive cross sectional study was carried out among 359 postpartum six months mothers at routine vaccine clinics at Anuradhapura district. Multi stage sampling method was used to recruit the participants. Questionnaire was consensually validated with cultural adaptation. Data were analyzed using SPSS version 21 software. Socio demographic information and other variables have been described using frequency distributions tables. Mean and standard deviation of BMI have been calculated. Chi-squared test was used to identify associations between categorical variables. Significant level (p value) was assed at 0.05.

**Results:** Prevalence of **overweight** among postpartum 6month mothers was observed **28.7%** (95 % C.I 24.1 – 33.7) and **obesity** was observed **13.6%** (95 % C.I 10.3 – 17.6). Prevalence of postpartum weight retention was 74.1 % (N=266) at postpartum 6months. Mean postpartum weight retention was observed 3.951 kg (SD±5.5),

Mean age of the study population was 29.4 (SD  $\pm$  5.5). Majority (79 .1%) of mothers were age between 20years - 34years. Among participants Buddhist (82.2 %), Islamic were 17.5% and 0.3 % were Christian. Majority (80.8 %) of mothers were unemployed, 46 % of mothers 'husbands were working in business sector and 49.3 % of mothers had monthly income between 16,000 Rs-45,000 Rs.

In socio-demographic characteristics only Islamic ethnicity (p<0.05, OR=2.240, C.I=1.288 - 3.895) was associated with overweight/obesity at postpartum 6months. Increase parity (p<0.05, OR=2.645, C.I=1.674 - 4.180) and unplanned pregnancy (p<0.05, OR=2.984, C.I=1.755 - 5.075) were associated with overweigh/obesity at postpartum 6moths

Keep awake >3 nights per week was significantly associated with overweight and obesity. Unhealthy diet practice also was associated with overweight/obesity at postpartum 6months.

However, physical activity score was not associated with postpartum overweight/obesity at 6months. It was not statistically significant (p>0.05).

## Conclusion

Prevalence of overweight and obesity has been considerably increased. Ethnicity, parity, unplanned pregnancy and dietary pattern were significantly associated with overweight and obesity at postpartum 6months. Considering bad outcome of non-communicable disease further investigation and awareness programs should be arranged at policy making level and field level.

Key word: postpartum weight retention, prevalence of overweight and obesity, physical activity