

Association Between Dietary Habits and Physical Activity Pattern with Overweight and Obesity Amongst Women in an Urban Community , Lalitpur



Mahesh Sarki¹

¹ MSc Global Health, University of Copenhagen, Denmark and Intern at Nutrition Promotion and Consultancy Services, Nepal



Introduction

Overweight/obesity have become the most visible but neglected public health problem to today's world (WHO 2015)

Women of reproductive age are more vulnerable and that they have suffered significant increase in the BMI in recent years. However, the risks to develop NCDs have shown to depend on waist-to-hip ratio (WHR) than on the BMI alone (Huxley et al. 2010)

Link between food security and overweight/obesity

The high cost of nutritious foods, the stress of living with food insecurity and physiological adaptations to food restriction help explain why food insecure families may have a higher risk of overweight/obesity.

Poor access to food increases the risk of poor birth outcomes (eg low birthweight) and stunted growth which are associated with risk of overweight/obesity later in life.

Objective

This study aims to determine the association between dietary behaviours, physical activity patterns with body mass index, waist hip ratio and waist circumference

Methods

A cross-sectional study was conducted in an urban community among 189 women aged 20 to 50 years. A structured questionnaire was administered to the participants about their dietary habits, physical activities, status, height , weight, waist-to-hip ratio (WHR) and waist circumference.

Training for enumerators



Orientation on tools for piloting



Data collection



Portion size of vegetables, lentils and cereals



Results

The average age of participants was 35.41± 8.45 years, 80.4% were from urban and 19.6% of the women originated from rural. Among them, 72% were from Newar community

The overweight or obesity rate was consistent among women based on body mass index (BMI) (76.2%), waist-circumference (81%) and waist-to-hip ratio (81%).

About 34.9% were overweight (23.5–BMI<27.5) representing increased risk.

About 39.2% obese (BMI>27.5) representing high risk.

About 24.9% have normal (BMI =18.5-23) and 1.1% underweight (<18.5).

Average total energy intake per day of women was 2834± 903 Kcal.

Total energy intake per day of women with BMI<=0.039, p=0.59) and WHR (p=0.64,p=0.96) had no significant association at p value >0.05.

No significant difference in caloric intake per day between obese, overweight and normal weight women.

Mean energy expenditure was 7119±4408 Metabolic Equivalents per week.

Positive association between entertainment related physical activities and BMI, WHR, WC.

The multivariate regression showed age, polished rice consumption and entertainment-related moderate physical activities were positively and significantly associated with all dependent variables (BMI ,WHR and WC.

Meat consumption was positively correlated with waist circumference ($\beta=0.26, p=0.001$) and BMI ($\beta=0.24, p=0.001$).

Conclusion

Intake of polished rice and meat have a direct relation with weight status, while short distance walking has no relation with central obesity.

Less consumption of refined and fatty foods, demotion of sedentary behaviours, promotion of short distance walking and necessary reproductive education could help in preventing overweight/obesity among urban women in Nepal.

References

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Contact

Mahesh Sarki
Email: msark@pcps.org.np

Nutrition Promotion and Consultancy Service
Email: rps@pcps.org.np
Skype id: rps@pcps.org.np Phone no: 977-1-4102286

