ABSTRACT

Silvia Mawarti Perdana. Physical Activity and Intake of Energy from Calorie Beverages among Overweight and Non-overweight Males and Females. Supervised by Hardinsyah and Dodik Briawan.

The objective of this research was to study physical activity level (PAL) and energy intake from calorie beverages (EICB) of overweight (OW) and non-overweight (NOW) males and females. The research was carried out through analyzing a data set of THIRST (The Indonesian Regional Hydration Study) collected in 2008 and 2009 by applying a cross sectional study design among 606 adolescents (male and female aged 15-18 years) and 594 adults (male and female aged 25-55 years) in North Jakarta, West Bandung, Surabaya, Malang, Makasar, and Malino. Data processing and analysis were conducted in Bogor in Maret-July 2011.

Since the prevalence of OW in adolescent is small (13.5%), the analysis was combined for both adolescent and adults, regardless the age groups. The results showed that the prevalence of OW was 31.8%, which is higher among female (35.5%) than male (27.9%). The mean BMI for overall subjects was 23.0 ± 4.9 (kg/m²), among female and male was 23.5 ± 5.2 (kg/m²) and 22.5 ± 4.6 (kg/m²) respectively, and among OW and NOW was 29.1 ± 3.9 (kg/m²) and 20.6 ± 2.7 (kg/m²) respectively. The mean PAL for overall subjects was 1.65 ± 0.19, among female and male was 1.62 ± 0.16 and 1.69 ± 0.21 respectively; and among OW and NOW was 1.60 ± 0.16 and 1.67 ± 0.19 respectively. The mean intake of EICB was 439 ± 394 kcal/day, among female and male was 409 ± 367 kcal/day and 471 ± 420 kcal/day respectively, and among OW and NOW was 395 ± 360 kcal/day and 477 ± 408 kcal/day respectively. The five types of calorie beverages most consumed by OW and NOW were the same, namely unpacked tea, unpacked coffee, unpacked juice, packed milk and unpacked yoghurt. There was significant correlation between PAL and BMI, but not for EICB and BMI, which more likely explained by the low energy adequacy level (84.3%) among subjects and the weaknesses of the cross sectional study design. This implies that increasing physical activity and limiting energy adequacy level is important to prevent overweight. Further studies with better design are required in this field in Indonesia.

Keywords : Physical activity, Calorie beverages, Male, Female, Overweight, Non-overweight