AN EMPIRICAL STUDY OF THE CLASSIFICATION OF WEIGHT PATTERNS: LATENT CLASS APPROACH

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We investigated the weight patterns of women by Latent Class Cluster Analysis and examined its association with some demographic characteristics, eating habits and eating disorders. Latent Class Clustering is a model-based probabilistic clustering approach and attempts to determine the number and composition of the unobserved latent classes by observed data. Anthropometric measures and bioelectric impedance values (height, weight, body mass index, waist circumference, hip circumference, waist to hip ratio, body fat mass, body free fat mass, body of water, basal metabolic rate, physical activity ratio) were used as continuous manifest variables, age was used as covariate variable in the model. Four latent class solutions provided the best fit (thin, normal, over weight and obese). Latent Class classifications were found similar to the Body Mass Index classification. Body mass index and waist circumference are the most explanatory variables for weight patterns, all means were found greater in the obese and overweight groups except for body free fat mass and physical activity ratio. Age, total number of pregnancies and living children of the overweight and obese individuals are higher, thin group is the most homogenous group, eating disorders are lower in the thin and normal group, eating till the bed-time after dinner, abnormal binge eating at one time and eating during night-time by awakening is observed most frequently in overweight and obese groups. Latent GOLD package is used for analysis.