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LT.PANLAPA SANTAVAMAITREE: ENERGY, NUTRIENT INTAKE AND ENERGY EXPENDITURE OF NURSING STUDENTS AT NAVAL NURSING COLLEGE. THESIS ADVISORS: REWADEE CHONGSUWAT, Ph.D., RATTANAPORN CHAROENPONG, M.P.H., WANGDYAN PANDII, Dr.Ph.D.112 P. ISBN 974-664-416-5

The main objectives of this descriptive research were to assess energy and nutrient intake, in proportion to energy distribution from food consumption, and energy expenditure, in terms of physical activity patterns among nursing students at Naval Nursing College. The population in this study was 178 nursing students (nursing science degree) who were studying in the second, third and fourth year at Naval Nursing College for the academic year 1999. These students answered demographic questionnaires for inclusion criteria as a participant in this study. The participants were 63 students who were asked to record their food consumption and activities in their diaries for four days.

The result showed that the mean energy intake from food consumption of nursing students: aged 18-19 years and aged 20-22 years were 1471.9 ± 268.5 kcal and 1441.8 ± 263.5 kcal respectively. When the mean energy and nutritional intake from food consumption of nursing students were compared with the same age group according to the Thai Recommended Dietary Allowance (RDA). It showed that the energy intake was at adequate level. Nutritional intake with respect to eight nutrients as follows: carbohydrates, fat, protein, iron, vitamin B1, vitamin B2, vitamin C and niacin were at adequate level; more than 67 % of the RDA, except for the intake of calcium and vitamin A which were at 25.9% and 64.9 % respectively for the age group of 18 – 19 years. As for the intake of calcium of age group of 20-22 years, it was 32.7%, which was considered inadequate. The vitamin A intake for this age group was rated as adequate. The proportion of energy from carbohydrates was slightly higher than recommended amount, but from protein and fat was proportionate. The mean energy expenditure was 2031.6 ± 179.0 kcal. It was divided into three parts: First, Basal Metabolic Rate was 1219.1 ± 72.1 kcal. Second, Energy for Physical Activity was 627.8 ± 116.4 kcal, i.e., most energy was spent for walking and the least energy for dishwashing and ironing. Finally, The Specific Dynamic Action was 184.7 ± 16.3 kcal. Nursing students spent energy in moderate activities. In addition, the energy requirement for nursing students was 2,000 kcal. The patterns of activity in terms of time spent for certain activities, were as follows: most time was spent on sitting, followed by sleeping, walking, standing relaxed and bath taking, standing at work, lying, dressing and undressing, floor sweeping and moping – cleaning bed and laundry, walk rapidly, exercise, making bed, walking upstairs, walking downstairs and dishwashing and ironing.