

**Thesis Title** The Assessment of Nutritional Status of The Elderly Living in Baan  
Bangkae Home for the Aged

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**ABSTRACT**

This was a cross sectional study to assess the nutritional status of the elderly in Baan Bangkae Home for the Aged employing anthropometry, biochemical, and dietary assessments. The study was conducted among 139 elderly subjects (male=18, female=121), with ages from 62 years to 96 years. The elderly between the ages of 70 to 79 years constituted the largest proportion of subjects, 45% (n=63), while those elderly between the ages of 60 to 69 years comprised the smallest proportion of subjects, 26% (n=36).

Prevalence of chronic energy deficiency (CED), using BMI cutoff of < 18.5, was found in 11% of the elderly females, whereas prevalence of overweight, using BMI cutoff of 25.0-29.9, was found in 24% of the aged females. There was statistically significant association between the ages of the females and the BMI levels ( $p<0.05$ ).

The age group of 60-69 year females had the highest means for all skinfold sites measured, and was significantly different from the other age groups of 70-79 years and those over 79 years ( $p < 0.05$ ). Applying multiple indicators to classify nutritional status based on six measurement areas (tricep skinfold, subscapular skinfold, BMI, MUAC, MUAMC, and AMA), severe undernutrition was present in 4% ( $n=5$ ) and severe overnutrition in 3% ( $n=4$ ) of the females. Mild/moderate undernutrition was present in 24% ( $n=29$ ) and mild/moderate overnutrition in 20% ( $n=24$ ). Approximately half of the elderly females (49%) were classified as being adequately nourished. This method, however, requires further validation.

Prevalence of anemia (by hematocrit and hemoglobin) was found in 88% and 73% of the elderly females, respectively. However, iron depletion by serum ferritin was not found. Presence of anemia in these subjects may be due to causes other than iron deficiency and should be further investigated.

Prevalence of high blood sugar was detected among 12% of the elderly females within the age of 60-69 years. Prevalence of hypertension among elderly females (mild, moderate, severe, and very severe) were 30%, 12%, 2%, and 1%, respectively. No hypertension was found in men.

Among elderly women, 94% had normal serum HDL-cholesterol level, whereas approximately 50% of them had normal serum LDL-cholesterol, serum cholesterol and serum triglyceride. Over 80% of the elderly men had normal serum HDL-cholesterol and serum triglyceride. Fifty-one percent of the men had normal serum LDL-cholesterol while their normal serum cholesterol was approximately 60%.

Prevalence of hyperlipidemia (serum cholesterol  $\geq$  240 mg/dL and serum triglyceride  $>$  130 mg/dL) among men and women was detected in 11% and 34%, respectively.

Food provided by the Home seemed to provide adequate energy, protein, and iron for both females and males, based on the percent of RDA. There was a wide variation in thiamin, with low vitamin A, riboflavin and especially calcium content. The actual intakes were lower than the provision for both men and women for energy and micronutrients (except iron). However, this study only determined foods the elderly consumed from the kitchen provision while there were others who bought their own foods from other sources, hence nutritional adequacy was difficult to ascertain from foods provided by the Home. Improvement of foods both in nutritional quality and its ease in chewing must be considered to make the Home's food more acceptable to the elderly.

This study recommends providing proper nutrition and health education to the caregivers and the elderly, followed by regular monitoring of nutritional status of the elderly to improve malnutrition in an institution or a home for the aged.