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Nutritional status of free-living elderly in an urban community

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Inadequate nutrition is a major problem faced by the rapidly expanding elderly population. Despite the high prevalence and significance of the problem, there is little information on the nutritional status of elderly people in the community and its impact on their quality of life. Elderly people living in the community are also at a greater risk for poor nutrition than younger adults. A study was conducted to assess the nutritional status of free-living elderly and to determine the relationship between their physical activity pattern and body composition.

Two hundred free-living elders aged over 60 years (100 males and 100 females) were randomly recruited from the urban council in Mannar District. Pre tested interview schedule was used to collect background information, socioeconomic status, physical activity level (PHL) and impairments. Multi-scoring system was used to determine lower and upper levels of PHL and impairments. Nutritional status was assessed using Mini Nutritional Assessment (MNA) and anthropometric measurements (weight, height and circumferences; mid upper arm, calf, waist and hip). Body composition was calculated by applying Durning and Womersley and Siri's equations to the sum of the thickness of four skin fold sites (triceps, biceps, sub scapular, supraliac).

MNA scores indicated that 7.5% and 60% of elderly in the sample were malnourished, and at risk to be malnourished respectively. BMI showed 50% of males and 40% of females were malnourished. The results revealed that elderly males who never attended school or had lower educational attainment, had lower weights, circumferences and MNA scores than the subjects who passed grade six and over. Females who passed grade six and over showed higher values for all anthropometric measurements. When comparing the body composition of malnourished with normal elderly, fat mass (14.9 kg) and fat free mass (33.6 kg) were significantly greater only in the normal elderly females ($p=0.0001$). After adjusting for age and impairment level, percent of fat in elderly males was significantly low (19.6%) with high activity level while there was no difference in elderly female subjects ($p=0.001$).

In conclusion a substantial proportion of elderly in the urban council in Mannar District is malnourished or is at risk to be malnourished. Mean values of fat mass and fat free mass were greater in normal elderly but there was no significant difference in males. Percent fat is low in male elderly with high activity level whereas there was no difference in female elderly.

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