

ABSTRACT

This study on physical health status of the elderly was carried out to assess: physical activity level; activities of daily living status; self reported disease prevalence; nutritional status and usefulness of Body Mass Index (BMI), Body Mass Index using arm span (BMA) and Mid Upper Arm Circumference of the elderly in assessing nutritional status in the urban, rural and estate sectors. Risk factors for under nutrition among rural elderly in the district of Matale, was also studied.

A community based comparative study was carried out. Using stratified multi stage cluster sampling technique, a sample of 3194 subjects (60 years and over) was selected (urban-1200, rural-1163 and estate- 831). Of the selected sample 95.2% participated in the study. An interviewer administered questionnaire and a clinical assessment including anthropometric measurements were carried out to collect data. A case control study was done to assess the risk factors for under nutrition among the rural elderly, which consisted 136 cases and 136 controls.

Of the total sample, only 3.0% lead an active life. Highest physical activity was seen among the estate elders (65.9%).

In the present study, 76.7% of the males and 71.0% of the females reported that they could carry out all 12 Physical Activities of Daily Living alone and 63.0% of the males and 63.2% females could perform all 4 Instrumental Activities of Daily Living alone.

Among the sample population 39.6% of the elders required assistance to perform ADL, of whom 28.8% reported that they could perform ADL with assistance without difficulty.

The present study revealed the following self reported diseases among the elderly in the district of Matale: arthritis (43.8%), high blood pressure (24.5%), heart diseases (14.9%), bronchial asthma (11.8%) and diabetes mellitus (7.3%). Sectorwise comparison of the elderly showed that, most of the illnesses were commoner among urban elderly, which were considered as urban diseases (diabetes, heart diseases and high blood pressure), while arthritis was commoner among the rural (46.7%) elderly. Arthritis was least common among the estate (40.0%) elderly. However only 9.8% of the sample population suffered major illnesses, and 37.5 % suffered minor illnesses during the preceding month.

According to the clinical examination in the present study, visual problems (57.8%) were more common than hearing problems (4.5%). However 72.3% reported poor vision and 12.2% reported impaired hearing, which was higher than what was found on clinical examination.

More than half (56.6%) of the sample population reported that they had poor oral health, which included the 25.4% edentulous.

Prevalence of undernutrition according to BMI in the estate, rural and urban sectors was 58.3%, 40.1% and 22.3% respectively, with an overall prevalence of 38.4%. In all three sectors females (14.3%) had a higher prevalence of obesity than males (7.3%). Prevalence of undernutrition among the elderly in the three sectors increased with advancing age.

However the total prevalence of undernutrition among the sample population rose from 38.4% to 61.9% when the arm span was used as a denominator in calculating BMI (BMA). The use of the BMA was validated for elderly over 75 years and the best cut off point for undernutrition is 17, at which prevalence of undernutrition among old-old and oldest old age groups rose from 44.9 to 60.2.

Correlation coefficients between BMI and BMA, for males and females were 0.92, 0.95 respectively, while correlation coefficients between height and arm span of males and females were 0.82, 0.76.

Following factors were found as risk factors for under nutrition. Odds ratios as follows: Poor education 1.73 (1.01-2.06), low income 2.72 (1.20-6.16), poor appetite 2.98 (1.38-6.45), feeling isolated 1.85 (1.05-3.27), non participation in social programmes 2.32 (1.41-3.81), using assistance in performing IADL 2.16 (1.20-3.88), low socioeconomic class 2.54 (1.48-4.36) and anemia 2.26 (1.27-4.03).

However, after adjusting for confounding using conditional logistic regression analysis, anemia 0.78 (0.64-0.94), poor appetite 2.18 (1.42-3.34) and non-participation in social programmes 2.48 (1.29-4.75) emerged as the risk factors for undernutrition.

This study found low levels of physical activity, poor nutritional status and high prevalence of common diseases among the elderly. There are no special services focusing on elderly in the present health system. Therefore it is necessary to develop preventive, promotive and interventional programmes to maintain the healthy life style focusing on the elderly regarding physical activity, common diseases and nutrition. Any programme aimed at the elderly should pay special attention to females, as they were more vulnerable, and constituted a larger proportion.

Awareness on prevention, promotion and intervention programs to improve physical health and nutrition of the elderly, among the health care personal as well as general population needs to be addressed.

In time to come health sector alone will not be able to shoulder the emerging problems of ageing and therefore multi-sectoral approach is advised.