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Assessment of handgrip strength and influencing factors among older adults in Kaithady Elders' Home

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Introduction & Objectives: Handgrip strength is a simple, low-cost indicator of overall muscle strength and functional health. Institutionalized older adults are at higher risk of muscle strength decline due to limited physical activity and comorbidities. This study assessed handgrip strength and its associated socio-demographic factors among older adults at the State Home for Elders, Kaithady, Jaffna District.

Materials & Methods: A descriptive cross-sectional study was conducted among 110 older adults aged 60 years and above residing at the State Home for Elders, Kaithady, Jaffna. Data were collected using a validated interviewer-administered questionnaire to identify the socio demographic factors. Handgrip Strength was measured in the dominant hand using a Smedley digital hand dynamometer. SPSS version 27 was used to analyze the data. Mann-Whitney U test and Kruskal-Wallis H test were used. Ethical clearance was obtained from the Ethics Review Committee, Faculty of Medicine, University of Jaffna.

Results: A total of 110 older adults aged 60 years and above participated in the study. Of the participants, 54.5% were males and 45.5% were females. The overall mean Handgrip Strength was 11.16 kg (SD = 6.01). Based on an age- and sex-specific reference chart, 86.7% of males and 84.0% of females had weak Handgrip Strength. Among the socio-demographic factors, only gender ($p = 0.005$) and previous occupation ($p = 0.003$) were significantly associated with Handgrip Strength.

Conclusions: A high prevalence of weak Handgrip Strength was observed among institutionalized older adults at the State Home for Elders, Kaithady in Jaffna exceeding levels reported in community-dwelling older adults in Sri Lanka. Gender and previous occupation were significantly associated.

Keywords: Handgrip strength, older adults, institutionalized elders, socio-demographic factors, Jaffna District.