COMMUNITY-DRIVEN INITIATIVE IN ENHANCING SARCOPENIA SCREENING AMONG THE ELDERLY IN KUBANG PASU: A KEPALA BATAS HEALTH CLINIC, KEDAH EXPERIENCE

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Introduction

Sarcopenia, the progressive loss of skeletal muscle mass and function, is an emerging public health concern in Malaysia, notably with the elderly population projected to reach 15.3% by 2030. With a prevalence of 12.5% to 33.6%, elderly women remain at higher risk. Early detection is crucial to prevent falls, frailty, and reduce healthcare burden, yet screening remains low despite its preventability. This initiative aimed to enhance sarcopenia awareness and screening uptake among those aged 60 years and above in Kubang Pasu, with a focus on Klinik Kesihatan Kepala Batas.

Methods

A retrospective cross-sectional study was conducted from July to December 2024 among adults aged ≥60 years in Kubang Pasu District, Kedah. Participants were recruited via convenience sampling at primary health clinics and community outreach. The intervention included health talks, educational exhibitions, leaflet distribution, home visits, and mass screening. Activities were conducted by trained staff in collaboration with the Clinic Advisory Panel (Panel Penasihat Klinik Kesihatan) and the Elderly Health Club (Kelab Warga Emas), strengthening community engagement and referral pathways. Screening tools comprised the SARC-F questionnaire (sarcopenia risk), calf circumference measurement (muscle mass), handgrip strength assessment (muscle strength), and the Five Times Sit-to-Stand Test (physical performance). Knowledge on sarcopenia was assessed using a self-developed questionnaire guided by relevant literature, administered immediately before and after educational activities in the same session. Data were analysed descriptively using Microsoft Excel software.

Results

Good knowledge of sarcopenia increased from 30% to 76% (n = 50). Screening uptake rose nearly six-fold, from 55 in July–September to 312 in October–December, out of 367 participants (N = 367), including 63.5% females (n = 233) and 36.5% males (n = 134). Female participants were at higher risk than males, with key risk measures summarized in Table 1.

Table 1. Participants at risk of sarcopenia by sex

Screening Measure	Female (%)	Male (%)
Low Calf Circumference	46.4	23.9
Low Handgrip Strength	13.7	10.4
Poor Five Times Sit-to-Stand Test	50.2	44.8
Elevated SARC-F Score	6.9	4.5

Discussion

This initiative led to a marked improvement in sarcopenia awareness, with good knowledge increasing from 30% to 76% and screening uptake rising nearly six-fold, from 55 to 312 participants over six months. These results demonstrate the effectiveness of a community-driven intervention. The active involvement of the Clinic Advisory Panel and the Elderly Health Club in mobilizing participation and fostering trust among the elderly shows how community empowerment can sustain engagement. Educational activities, combined with knowledge assessment and community involvement, enhanced

awareness and motivated the elderly to participate in early screening. Female participants, the majority, were at higher risk than males, showing greater proportions with reduced calf circumference, weaker handgrip strength, poorer Five Times Sit-to-Stand Test performance, and higher SARC-F scores, indicating possible sarcopenia. These findings, obtained using validated screening tools, confirm the greater vulnerability of elderly women, supporting the introduction noting their higher risk. This emphasizes the need for targeted interventions. Follow-up compliance remained limited due to missed appointments among at-risk individuals. Addressing this gap is essential to ensure continuity of care and sustain the impact of community-based interventions.

Keywords: Sarcopenia, elderly health, community-driven, screening, primary care, health promotion