

Assessment of Anthropometric Measurements and Dietary Patterns in Relation to Post-Menopausal Stages Among Post-Menopausal Women Visiting Peradeniya Teaching Hospital: A Preliminary Cross-Sectional Study

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Menopause marks the end of menstruation and reproductive function, after which women enter early, mid, or late postmenopausal stages. In Sri Lanka, with an average lifespan of 78 years, women spend about a third of life postmenopausal, raising concerns about obesity, NCD risk, and diet. This cross-sectional study, conducted in February 2025 at Peradeniya Teaching Hospital, assessed anthropometric measures and dietary patterns in relation to postmenopausal stages. Eighty postmenopausal women (45–65 years) were recruited by convenience sampling with 28.75% early, 22.5% mid, and 48.75% late stage. Data were collected on anthropometric measurements (including BMI, waist and hip circumference, waist-to-hip ratio, body fat, and visceral fat), dietary intake (via 24-hour recall and the Food Frequency Questionnaire [FFQ]), and socioeconomic background. The data were analyzed using IBM SPSS Statistics version 22. The findings of the present study revealed that the mean age at menopause was 47 years. Participants had an average height of 153.59 cm (± 6.09), a mean weight of 62.76 kg (± 12.32), and a mean BMI of 26.47 kg/m² (± 4.23), classifying them as obese based on Asia-Pacific BMI cut-off values. The average total body fat was 36.40% (SD = 4.71), and the average visceral fat level was 10.11% (SD = 4.42), indicating elevated adiposity. Central obesity was common, with a mean waist circumference of 90.06 cm, hip circumference of 103.16 cm, and a waist-to-hip ratio (WHR) of 0.872. Dietary pattern analysis based on FFQ data indicated a predominant intake of carbohydrate-rich foods (42%), with low consumption of oily foods, sugary foods, and fruits (each 4%). Significant differences in fruit ($p = 0.038$) and sugary foods ($p = 0.043$) intake were found across postmenopausal stages, with lower consumption in the late stage. A high prevalence of overweight (78%) and obesity (58%) was observed within the study population, alongside a significant burden of NCDs. Late postmenopausal women showed higher obesity indicators, highlighting the need for stage-specific diet and lifestyle interventions to reduce metabolic syndrome risk. Expansion of this research into a larger, multi-district study incorporating a control group is recommended to enhance generalizability and guide postmenopausal public health strategies in Sri Lanka.

Keywords: Post-menopause, dietary patterns, anthropometric measurements, NCDs, obesity and diabetes