

## **OP 01 – Impact of Health Promoting Lifestyle Modification Education Intervention on Anthropometric Adiposity Measures and Physical Performance of Postmenopausal Women**

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**Background:** Menopause causes structural and functional impairments in postmenopausal women (PMW) such as anthropometric adiposity measures (AAMs) and physical performances (PPs).

**Objectives:** This study aimed to evaluate the impact of a health promoting life-style modification education intervention (HPLEI) on AAMs and PPs in a group of PMW.

**Methodology:** A quasi-experimental study was conducted with randomly selected, sociodemographic status matched, 72 PMW from two geographically separated areas in Galle, Sri Lanka allocated as experimental (n=37) and control (n=35) groups. HPLEI focused on postmenopausal lifestyle management was performed during 8 weeks and printed health education package was provided only for the experimental group. Both groups were followed-up for 6 months period after the HPLEI. AAMs and PPs were measured before the intervention and after 6 months follow-up in both experimental and control groups. Measured AAMs were body mass index (BMI, kg/m<sup>2</sup>), waist circumference (WC, cm) and waist to hip ratio (WHR). Evaluated PPs were hand grip strength (HGS, kg) and gait speed (GS, m/s).

**Results and conclusions:** Mean (SD) age of experimental and control groups were 54.6 (4.5) and 56.5 (3.4) (p=0.06) years respectively and sociodemographic factors were not different between groups. Before the intervention, AAMs and PPs were not significantly different between experimental and control groups (p>0.05). In the follow-up evaluation, BMI, WHR and WC were significantly (p<0.05) reduced and all the measured PPs were significantly improved (p<0.001) in experimental group. However, AAMs showed significant or non-significant increments while PPs showed significant impairments (p<0.001) in control group in the same evaluation. In the follow-up evaluation, AAMs and PPs were improved positively in experimental group compared to control group (p<0.05). HPLEI provided after menopause was effective in improving AAMs and PPs in PMW. The usefulness of such interventions needs to be confirmed in a larger study.

**Keywords:** Health promotion, life-style modification, education intervention, postmenopausal women