

Abstract

TITLE OF THE ABSTRACT: Effectiveness of a community based physical activity programme in changing the physical activity profile of the community – a feasibility study of an intervention.

DEPARTMENT: Community Medicine

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Objectives: To measure the change in level of physical activity among women in the age group 30-40 years of the selected villages in Kaniyambadi block, Vellore following community based physical activity intervention.

To measure the level of physical activity among women in the age group 30-40 years of the selected villages in Kaniyambadi block, Vellore.

To study the determinants of physical activity among women in the age group 30-40 years of the selected villages in Kaniyambadi block, Vellore.

Methods: The study was conducted in 2 geographical areas each containing many villages in Kaniyambadi block of Vellore district, Tamil Nadu. The participants for both the pre and post-Intervention studies were non-pregnant women between 30-40 years of age who are Permanent residents of the chosen villages and were selected by separate Simple random sampling from a list generated by Census of Kaniyambadi block maintained by CHAD Health Information system. 160 participants from Intervention-A area and 149 from Intervention-B area were administered GPAQ structured questionnaire to assess physical activity. Socio-demographic characteristics, medical and family history of NCDs, 24 hour diet recall and food frequency were also asked. Height, weight, waist hip circumferences, blood pressure were measured. Biochemical parameters like FBS, PPBS, Lipid profile were studied. Intervention-A and B consisted of a planned health education module to address issues of adequate physical activity and a healthy diet in the community. In addition to this, Intervention-A consisted of setting up an open air Community gymnasium and identifying few walking paths in the villages. Change in physical activity profile was studied post-intervention.

Results: Proportion of study participants who were physically active was found to be 46.92%. Among 30-40 year old women in the study areas, prevalence of Diabetes mellitus was 9.93%, Hypertension was 25.56%, Dyslipidaemia was 42%, Overweight and obesity was 56.65%, Central obesity was 73.14% and Metabolic syndrome was 42.7%. Following physical activity intervention, proportion of participants doing moderate intensity recreational activity in Intervention-A area increased from 20% to 38.3% ($p = 0.002$), the total MET-minutes score in both areas increased post-intervention from 809.18 to 823.95 in Intervention-A area and from 827.60 to 1186.03 in Intervention-B area ($p=0.009$). Physical inactivity was significantly associated with Dyslipidemia ($p=0.034$) and being Overweight ($p=0.036$).

Conclusion: The community based physical activity programme brought about a positive change in the physical activity pattern in the community. Reinforcement and motivation on a larger scale is needed to sustain the healthy lifestyle habit inculcated.