ABSTRACT

**Purpose:** To determine the effectiveness of two goal setting pedometer based walking program for people with type 2 diabetes, one employing supervised exercise group with pedometer and the other employing self reported group with pedometer.

**Participants:** A total of 102 type 2 diabetic outpatients (28 women, 74 men) between the age of 40-70 years were recruited and randomly allocated into 3 groups: supervised exercise group with pedometer (Group A), self reported exercise group with pedometer (Group B) and a control group (Group C) for 16 weeks.

**Methods:** Ethical approval was sought and obtained. Consent of participants was taken before randomization along-with their baseline measurements. Subjects were assessed for the ABC (Anthropometry, Biochemical, and Clinical) measurements. Few initial sessions of familiarization with pedometer and the understanding of Borg scale were given to all the participants in Group A and Group B. Subjects in Group A were encouraged to increase their step counts up-to 4000 in 30-40 minutes/session/day and maintain it till the end of 16 weeks. Group B participants were told to achieve target of 10,000 steps/day during intervention period without any consideration to intensity and duration. Participants in the control group were asked to maintain their lifestyle and were encouraged to walk.

**Analysis:** STATA 11.0 statistical software was used for data analysis. In this study P-value less than 0.05 has been considered as statistically significant.

**Results:** A significant decrease in BMI, FBG, HbA1c, lipid profile, cardiovascular parameters and psychological parameters were noticed in both experimental groups after 16 weeks of intervention. No significant difference seen in bone health.

**Conclusion:** Walking is an effective exercise to improve the degree of glycaemic control, metabolic and cardiovascular fitness in patients with type 2 diabetes. Both self reported and supervised program were effective depending upon person inclination, time and social factors. Pedometer determined activity has the potential to improve the quality of life.

**Key words:** Type 2 diabetes, pedometer, metabolic, cardiovascular fitness, walking, quality of life, wellbeing.