CONCLUSION

Summarizing the findings of this study, “Effectiveness of physical activity protocols on physiological and psychological parameters of patients with type 2 diabetes”, it can be concluded that walking is an effective exercise to improve the degree of glycaemic control, metabolic profile, cardiovascular fitness, general well being and quality of life in patients with T2DM. Physical activity whether it is supervised or self reported is beneficial in improving the health outcomes variables in T2DM.

Results of this study brought us at the following conclusions:

1. The results of the study support the hypothesis of the effectiveness of supervised and self reported exercise program with pedometer over control group on physiological and psychological parameters of T2DM.

2. Walking with pedometer results in significant improvement in glycaemic control for both the experimental groups. Subjects in the two experimental groups reported reduction in HbA1c after 8th week and 16 week. Control group (with medications only) showed significant improvement in HbA1c on a short term basis but no long term effects were seen. Though fasting blood glucose levels do improve significantly after 16 weeks.

3. Walking with pedometer results in highly significant improvement in metabolic profile of adults with T2DM. It has been observed that subjects in supervised group showed faster improvement for metabolic outcomes as compared to the subjects in self reported group.

4. Walking with pedometer results in significant decrease in the skin fold measurements. After assessing bone health in the form of SOS score, it was found that supervised group showed significant improvement and reduced risk of osteoporosis.

5. Experimental groups (supervised group and self reported group) showed significant reductions in RHR, SBP and DBP after 16 weeks. RHR, SBP and
Conclusion

DBP in all the subjects in supervised group decrease after 8\textsuperscript{th} week and also the decrease was faster in comparison to self reported group.

6. Walking with pedometer improves overall general well being and quality of life of adults with T2DM. Responses to quality of life domains were more negative amongst control group compared to supervised group and self reported group after 16 weeks of intervention.

7. Significant differences in between supervised group as compared to control group supports that walking with pedometer is an effective way for improvement in quality of life. The results of this study clearly imply that 30-40 minute of moderate intensity walking with pedometer is an effective method for the sedentary individuals to enhance their quality of life and well being.

8. The findings of the present study demonstrate the efficacy of walking using pedometer helps in reduction of HbA1c, obesity, FBG and improve quality of life and general wellbeing. It may, thus, be concluded that walking with pedometer is an effective approach for T2DM individuals.

9. It may be concluded on the basis of observation that both self reported and supervised program were effective depending upon personal inclination, time and social factors. This will serve as evidence in establishing benefits from achieving 10,000 steps per day irrespective of intensity.

10. It has been concluded that whatever be the nature of intervention (supervised or self reported), the use of a pedometer may lead to more realistic assessment and motivation to T2DM individuals in everyday physical activity.