

RESEARCH PROJECT



Exercise and Lifestyle Education Program for Patients with Prediabetes and Diabetes: Multicenter Randomized Controlled Trial in Brazil

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Summary

The number of people living with diabetes in Brazil continues to increase. Moreover, the incidence of prediabetes is rising around the world and consequently demanding strategies to prevent type 2 diabetes. Since diabetes management includes the use of medications and lifestyle changes, including dietary restrictions and physical exercise, patient education is a crucial aspect to promote the prevention and control of this disease. However, lifestyle education programs are still poorly implemented in countries such as Brazil.

The goal of this research project is to investigate the effects of an Exercise and Lifestyle Education (ExLE) program on functional capacity and other outcomes compared to an Exercise (Ex) program in patients living with prediabetes and diabetes in Brazil.

This is a multicenter double-blinded randomized controlled trial with two parallel arms: ExLE program (12 weeks of exercise and educational interventions) and Ex program (12 weeks of exercise intervention only). The study is taking place in two Brazilian cities located in the more densely populated Brazilian region, including a state capital. The programs can be delivered in two formats (face-to-face or remote) based on internet access and technology literacy and preference of the participants.



The primary outcome is functional capacity assessed by the Incremental Shuttle Walk Test, a test requiring patients to walk progressively faster each minute

Other outcomes include (1) disease-related knowledge, (2) health behaviors (physical activity level, exercise self-efficacy, health literacy, and medication adherence and (3) cardiometabolic health parameters (glycemic control, anthropometric measures, and cardiac autonomic control). Quality of life, program adherence, satisfaction with interventions, and 6-month related diabetes morbidity will also be assessed. Assessments will occur at pre- and post-intervention, and a six-month follow-up.

Progress: This study is currently ongoing. Until now, 86 participants have been enrolled in the study, of which 43 were randomized to the ExLE program, and 43 were randomized to the Ex program.



Key words

Diabetes Mellitus; Prediabetes; Health Education; Patient Education; Exercise Training