

10. DIABETES EDUCATION & PREVENTION WITH A LIFESTYLE INTERVENTION OFFERED AT THE YMCA (DEPLOY) PILOT STUDY

Background: With its exceptional reach into diverse U.S. communities and long history of implementing successful health promotion programs, the YMCA is a capable community partner. Over a period of four years, the YMCA of Greater Indianapolis participated with researchers at Indiana University School of Medicine (IUSM) to design, implement, and evaluate a group-based adaptation of the highly successful Diabetes Prevention Program (DPP) lifestyle intervention. This project, DEPLOY, was conducted to test the hypotheses that wellness instructors at the YMCA could be trained to implement a group-based lifestyle intervention with fidelity to the DPP model and that adults at high risk for developing diabetes who received this intervention could achieve changes in body weight comparable to those achieved in the DPP.

Methods: DEPLOY, a matched-pair, group-randomized pilot comparative effectiveness trial involving two YMCA facilities in greater Indianapolis, compared the delivery of a group-based DPP lifestyle intervention by the YMCA with brief counseling alone (control). The YMCA, which was engaged before the development of the research grant proposal, collaborated with researchers at IUSM throughout the study. Research participants were adults who attended a diabetes risk-screening event at one of two semi-urban YMCA facilities and had a BMI (kg/m^2) greater than 24, two or more risk factors for diabetes, and a random capillary blood glucose concentration of 110–199 mg/dL. Multivariate regression was used to compare between-group differences in changes in body weight, blood pressures, hemoglobin A1c (glycosylated hemoglobin), total cholesterol, and HDL (high-density lipoprotein) cholesterol after six and 12 months.

Results: Among 92 participants after six months, body weight decreased by 6.0% in intervention participants and 2.0% in controls. Intervention participants also had greater changes in total cholesterol. These significant differences were sustained after 12 months, and adjustment for differences in race and sex did not alter the findings.

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Comments: With more than 2,500 facilities nationwide, the YMCA is a promising channel for wide-scale dissemination of a low-cost model for preventing diabetes by changing lifestyles.

Applications of Principles of Community Engagement: Bringing health promotion activities to members of the community often requires mobilizing the community's existing assets, both people and institutional resources, as described in Principle 7. In line with Principles 3, 4, 5, and 7, the YMCA was engaged before the development of the research grant proposal, and it collaborated on the study design, approach to recruiting, delivery of the intervention, development of measures, interpretation of results, and dissemination of findings. DEPLOY demonstrates how intensive programs designed to change lifestyles can be more sustainable when health care centers engage established social institutions like the YMCA.

Reference

Ackermann RT, Finch EA, Brizendine E, Zhou H, Marrero DG. Translating the Diabetes Prevention Program into the community. The DEPLOY pilot study. *American Journal of Preventive Medicine* 2008;35(4):357-363.