

TeleHealth Improves Diabetes Self-Management in an Underserved Community

Diabetes TeleCare

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OBJECTIVE— To conduct a 1-year randomized clinical trial to evaluate a remote comprehensive diabetes self-management education (DSME) intervention, Diabetes TeleCare, administered by a dietitian and nurse/certified diabetes educator (CDE) in the setting of a federally qualified health center (FQHC) in rural South Carolina.

RESEARCH DESIGN AND METHODS— Participants were recruited from three member health centers of an FQHC and were randomized to either Diabetes TeleCare, a 12-month, 13-session curriculum delivered using telehealth strategies, or usual care.

RESULTS— Mixed linear regression model results for repeated measures showed a significant reduction in glycated hemoglobin (GHb) in the Diabetes TeleCare group from baseline to 6 and 12 months (9.4 ± 0.3 , 8.3 ± 0.3 , and 8.2 ± 0.4 , respectively) compared with usual care (8.8 ± 0.3 , 8.6 ± 0.3 , and 8.6 ± 0.3 , respectively). LDL cholesterol was reduced at 12 months in the Diabetes TeleCare group compared with usual care. Although not part of the original study design, GHb was reduced from baseline to 12 and 24 months in the Diabetes TeleCare group (9.2 ± 0.4 , 7.4 ± 0.5 , and 7.6 ± 0.5 , respectively) compared with usual care (8.7 ± 0.4 , 8.1 ± 0.4 , and 8.1 ± 0.5 , respectively) in a post hoc analysis of a subset of the randomized sample who completed a 24-month follow-up visit.

CONCLUSIONS— Telehealth effectively created access to successfully conduct a 1-year remote DSME by a nurse CDE and dietitian that improved metabolic control and reduced cardiovascular risk in an ethnically diverse and rural population.

***Diabetes Care* 33:1712–1717, 2010**

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