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Title

The Diabetes Homeless Medication Support (D-HOMES) program: Results from a randomized pilot trial

Priority 1 (Research Category)

Social determinants and vulnerable populations

Presenters

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Abstract

Context: People experiencing homelessness have 3-6x higher diabetes mortality than their stably housed peers despite similar prevalence. Evidence supports health coach programs to improve diabetes care and behavioral activation (BA) to improve medication adherence in low-resource settings. Yet this evidence has not been applied to people experiencing homelessness. Objective: To use community engaged research to develop a behavioral intervention to improve diabetes care tailored to the needs of people who have experienced homelessness. Study design and analysis: Following the ORBIT model, we conducted several treatment development studies. Here we data from our randomized pilot trial comparing our intervention (D-HOMES) with enhanced usual care (EUC;i.e., brief diabetes education and referral for usual care). We used bi- and multivariate statistics to examine changes in outcome measures from baseline at 12-, 24-weeks. Setting: Minneapolis, MN, a U.S. urban area with accessible safety net health care. Population: Adults with type 2 diabetes who had experienced homelessness in the last 24 months, took diabetes medications and were willing to work on improved adherence, with HbA1c>7.5%. Intervention: D-HOMES offered up to 10 individual, weekly, 30 min. coaching sessions over 12 weeks and 3 monthly, 15 min. booster calls. Trained, non-health-expert coaches used BA to improve adherence. Outcome measures: We focused on feasibility (enrollment, retention) and acceptability (CSQ-8 survey). Our eventual primary outcome is glycemic control (HbA1c); behavioral targets include medication adherence, diabetes management (DSMQ, PAID-5), and psychological wellness (MHI-5). Results: We randomized 38 participants but withdrew 2 due to ineligibility. 100% of eligible participants had 12-week assessment visits; 80+% of eligible participants had 24-week assessment visits. Acceptability was high. Mean glycemic control improved among all participants at 12-weeks (-0.7%) with 81% of participants improving their HbA1c by -0.5% or more; we detected no significant between group difference at 12-weeks. Diabetes emotional distress, glucose control behaviors, and psychological wellness changed more in the hypothesized direction among D-HOMES participants compared to EUC at 12- and 24-weeks. Conclusions: D-HOMES is highly feasible and acceptable to an under-studied

population. Underpowered outcome measure analyses demonstrate mixed results. More study is needed in a fully powered trial.