Telephone-based peer support for African Americans with diabetes: A pilot study

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INTRODUCTION

African Americans have one of the highest rates of diabetes and diabetes-related complications among ethnic populations and face significant health care disparities despite membership in managed care organizations.

Successful diabetes management depends on support from the health care institution/provider in addition to multiple self-care behaviors. One of the barriers patients experience with type 2 diabetes is consistent and frequent support which is often limited by time constraints, manpower and lack of resources.

Telephone-based peer support can provide additional help at a low cost and has led to improved diabetes management, including improved behaviors related to medication adherence, diet, exercise, and blood glucose monitoring.

Patient-patient and patient-provider race concordance may provide an additional level of support and facilitate a greater sense of trust for African American patients with diabetes.

PURPOSE

The purpose of this 3-month pilot study was to evaluate the impact of a racially concordant telephone-based peer support program in combination with professional-led diabetes classes on the hemoglobin A1c (HbA1c) levels of African American patients diagnosed with type 2 diabetes in a managed care setting.

We hypothesized that these patients would improve glycemic control as a result of:

1) providing support to and receiving support from fellow African American patients with diabetes, and

2) attending educational classes led by African American health care professionals.

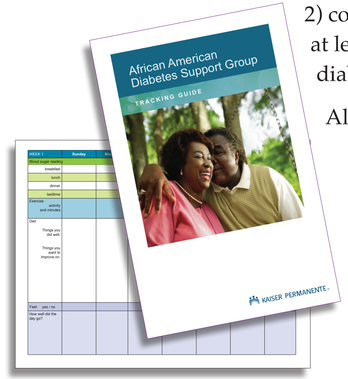
METHODS

Setting: Kaiser Permanente, South Sacramento, CA.

Subjects: Twenty-one African American patients with type 2 diabetes were recruited to participate in a 12-week pilot study of telephone-based peer support intervention and group-led diabetes education classes.

Intervention: During the initial informational group session, participants self-selected their telephone partners and were asked to:

1) use the culturally-tailored "tracking guide" to record a variety of pertinent information on a daily basis and



2) contact their partner by telephone at least once a week to discuss diabetes-related issues.

All patients
- completed pre and post HbA1c lab draws,
- received peer communication skills training,
- received educational materials on blood sugar readings, exercise (pedometer), diet (portion control plate/ culturally-tailored diabetic recipes), and foot checks, and
- attended monthly empowerment-theory-based diabetes management classes for three consecutive months.

At the completion of the 12-week period, patients completed HbA1c lab draws and a patient satisfaction questionnaire.

RESULTS

Ninety percent (90%) of patients demonstrated a decrease in HbA1c levels.

Sixty-two percent (62%) of patients experienced a clinically meaningful reduction of HbA1c levels of greater than 1 percent.

A significant reduction in average HbA1c levels following the intervention was found (mean reduction -1.5%, standard deviation 1.4%) ($p < .0001$).

Patients with higher initial HbA1c levels (> 9%) demonstrated the most improvement.

HbA1c level change after 3 months

Pre HbA1c level	Post HbA1c level	Change
7.2	6.4	-0.8
7.4	7.4	0
7.9	8.4	+0.5
8.1	7.9	-0.2
8.3	8.2	-0.1
8.4	8.2	-0.2
9.5	8.4	-1.1
9.5	9.2	-0.3
9.6	7.7	-1.9
9.6	7.2	-2.4
9.8	9.3	-0.5
10	7.8	-3.2
10.3	8.6	-1.7
10.6	7.3	-3.3
11	9.3	-1.7
11.5	9.3	-2.2
12.2	7.4	-4.8
12.2	8.3	-3.9

CONCLUSIONS

Findings from the study suggest that the combination of racially concordant telephone-based peer support and clinician-led diabetes education offers a promising means of supporting and improving the clinical health outcomes of African American patients with diabetes.

Further studies are warranted to:
- Conduct randomized control trials that assess the efficacy, cost, and clinical effects of this type of program over longer timeframes.
- Assess the frequency and length of peer-to-peer phone calls, the protocol provided to patients to guide them through these phone calls, and the workload of the peers.
- Explore adaptations of this model for other ethnic groups, particularly those with similar demographics who belong to managed care organizations.

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