University of South Florida
Tampa Bay

Symposium Title:
Language Concordant Health Coaching on Diabetes Self-Management for Limited English Proficiency Latinx

A Pilot Test of a Language-Concordant Health Coaching Intervention for Limited English Proficiency Latinx in the U.S.

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BACKGROUND

- Language concordant health education may increase self-management and improve health outcomes for limited English-proficiency Latinx with Type 2 diabetes (T2D).

BACKGROUND

- Type 2 diabetes (T2D) is:
  - A global epidemic
  - Highly prevalent among Mexican immigrants in the United States
  - Occurrs at 1.5 times the rate for non-Hispanic whites.

BACKGROUND

- The prevalence of T2D is increasing sharply in Mexican immigrants, affecting more than 10% of this population, and is considered a public health crisis.

BACKGROUND

- Mexican immigrants suffer high rates of complications associated with T2D

- Prevalence of end stage renal disease is approximately 5 times greater

- Prevalence of diabetic retinopathy in Mexican immigrants is twice that of the diabetic non-Hispanic population.

BACKGROUND

- Over 14 million Mexican immigrants have limited English proficiency (LEP), which leads to:
  - costly delays in treatment,
  - missed diagnoses,
  - medical errors, and
  - poor patient adherence.

BACKGROUND

- Mexican immigrants with LEP are at a greater risk of:
  - foregoing diabetes care

- Significantly less likely than non-Hispanic whites to:
  - adopt a special diet for diabetes control,
  - exercise regularly,
  - receive a yearly eye examination

BACKGROUND

- Maintenance of glycemic control
  - cornerstone of T2D management and reduces the risk of the complications associated with T2D.

- Maintaining glycemic control
  - requires self-management of a complex and demanding treatment regimen
  - constant daily attention to diet, exercise, blood glucose monitoring, and
  - daily medication administration.

BACKGROUND

- Diabetes self-management education has been shown to be an effective method to improve clinical outcomes in patients with T2D.

- LEP Mexican immigrants have insufficient access to language concordant self-management education interventions.

DESIGN

- Randomized pilot study (n=17) patients with T2 diabetes

- Assessed feasibility and obtain preliminary effect on clinical outcomes such as A1C, depression, and anxiety.

- Participants were randomly assigned to a Control or Health Coaching (HC) group.

INTERVENTION

- Health Coaching by phone
- Health Coaches were trained in a 8-10 week course
- Spanish language
- Principles of T2 diabetes, self-management, and behavior change

INTERVENTION Details

- **HC group**

- Baseline clinic visit with a Health Coach (HC)

- Received packet of educational materials

- Up to 14 HC calls

- Mid-point clinic visit

- Final clinic visit

- **Control group**

- Baseline clinic visit with a Health Coach (HC)

- Received packet of educational materials

- No calls

- Final clinic visit

SAMPLE

- N=17

- 65% female (n=11)

- Mean age of 51.7 (SD=12.9)

- All participants were Hispanic/Latino,
  - 1 participant also African American/Black
  - Others, Caucasian

SAMPLE

- Two thirds of the participants (n=13, 76.5%) were employed and earning less than $20,000 per year.

- Approximately half had a partner (n=8, 47.1%) and 41.2% was single (n=7).

- Of the 7 individuals who reported on education:

- 2=Bachelor degrees,

- 3=High School Diplomas

- 2=graduated from technical school.

SAMPLE

- No significant differences in A1C levels between the groups at baseline.

- **Control** group-no significant change in A1C baseline (M=10.40; SD =1.22) to midpoint (M=10.37; SD = 1.18) to endpoint (M=10.14; SD = 1.04.

- **HC** group-clinically significant decrease in A1C from baseline (M=10.90; SD=2.02) to midpoint (M=9.42; SD =1.93) to endpoint (M=8.96; SD =2.26).

RESULTS

- Paired t-tests examining A1C levels within the HC group
- Significant reductions
- (M=10.9; SD =2.02) baseline
- M=8.96 (SD = 2.26) (t=6.17, p<.001) endpoint

RESULTS –HC group

- Mean depression (PHQ9) scores significantly dropped from M=14.00 (SD=11.3) at baseline to M=1.50 (SD=1.70) at endpoint, (t=4.34, p<.001, effect size dz= 1.2).

- Anxiety scores (GAD7) significantly dropped from M=10.00 (SD=4.24) at baseline to M=7.00 (SD=5.65) at endpoint (t=4.22, p<.001, effect size dz= 1.1).

CONCLUSIONS

- While the number of patients (n = 17) was small, we still observed clinically and statistically significant differences in primary outcomes of A1C levels from pre to post intervention.

- A language-concordant health coaching program to manage diabetes among limited English proficiency Latinx in the U.S. may improve health outcomes and is ready for large scale RCT testing.