

Brief Intervention on Prediabetes Glucose Self-Regulation in Spanish Speaking

Adults with Low Health Literacy: a Pilot Study

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Background



In Texas:

- 1 in 3 Hispanic adults are obese
- 1 in 12 have prediabetes
- Estimated 50% Hispanics will develop diabetes

Health disparities--Highest rates compared to Non-Hispanic Whites and Blacks

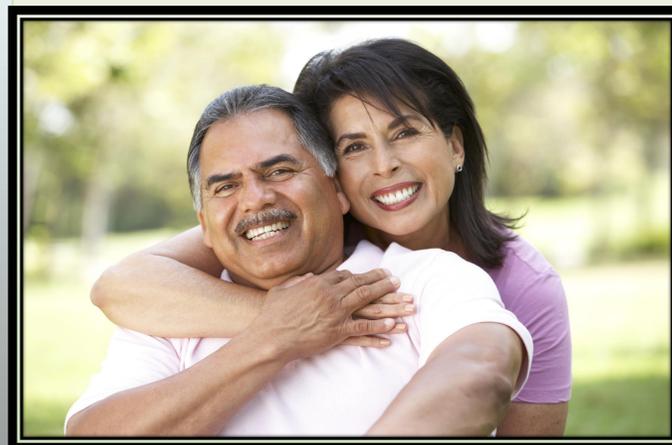
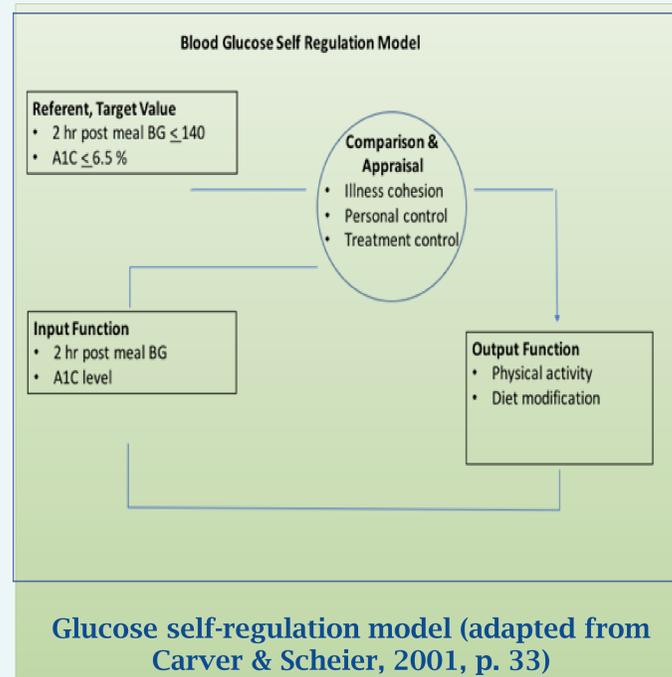
- Kidney disease
- Vision loss
- Heart disease

Diabetes Prevention Program

- Promising results for delaying diabetes onset
- Too resource intensive
- Need for feasible health education intervention

Purpose

To test a brief blood sugar self-regulation intervention in Spanish speaking adults with prediabetes.



SPECIFIC AIM

To determine the percentage of participants who maintained or had decreased A1C, fasting blood sugar, or weight after participating in a blood sugar self-regulation intervention.

Methods

One group pre-post design

Inclusion criteria

- =>18 years old
- Prediabetes
- Spanish speaking
- Uninsured, undocumented immigrant

Setting

- Free primary care clinic
- 48% low health literacy

Interventions

1x in person education session + call every 2 weeks x 3 months

- BS testing (free glucometer)
- **Goal: BS < 140 two hours post meal**
- What's a carbohydrate and how it ↑ BS. Used MyPlate for portion sizes.
- How exercise ↓ BS
- Set diet and/or physical activity goal
- Test BS 3x week two hours after meals
- Use BS test for feedback = self-regulation
- Used teach back

Results

Characteristics	Number (%)
Mean age 47.7 years	
Gender	
Female	14 (87.5%)
Marital status	
Single	6 (37.5%)
Married	9 (56.3%)
Separated/Divorced	1 (6.2%)
Education	
< 8th grade	10 (62.5%)
Some high school	2 (12.5%)
High school graduate	2 (12.5%)
Employment Status	
Employed	6 (37.5%)
Out of work	6 (37.5%)
Homemaker	4 (25%)
Household income	
< \$15K	8 (50%)
\$15-24,999K	5 (31.2%)
> \$25K	3 (18.6%)

Results

- 16/24 completed study (67% retention)
- 62.5% decreased fasting blood sugar
- 87.5% maintained a prediabetes A1C
- 50% lost weight
- 19% had no change in weight.
- Independent t-tests no significant difference pre-post intervention (small sample size)
- Participants positive!

Implications

- Larger trial
- Readiness to change
- Texting rather than calls

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