Risk of Having Prediabetes and Attitudes About Health Risks in Predominately Spanish-Speaking Latino Immigrants

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Introduction

- **Background**
  - ❖ Latinos are disproportionately impacted by type 2 diabetes (T2DM)
  - ❖ Reduction of excess weight through healthful diet and physical activity can reduce risk of developing T2DM in adults with prediabetes
  - ❖ Perceived risk may be a mediating factor in preventative health actions

- **Specific Aims**
  - ❖ Cross-culturally adapt the Risk Perception Survey for Developing Diabetes (RPS-DD), a measure of perceived risk of developing diabetes, for immigrant Latinos in California
  - ❖ Describe perceived risk of developing T2DM in a population of immigrant Latinos in Northern California

Methods

Phase 1 (report of focus group findings)

- **Cross-cultural adaptation of RPS-DD**

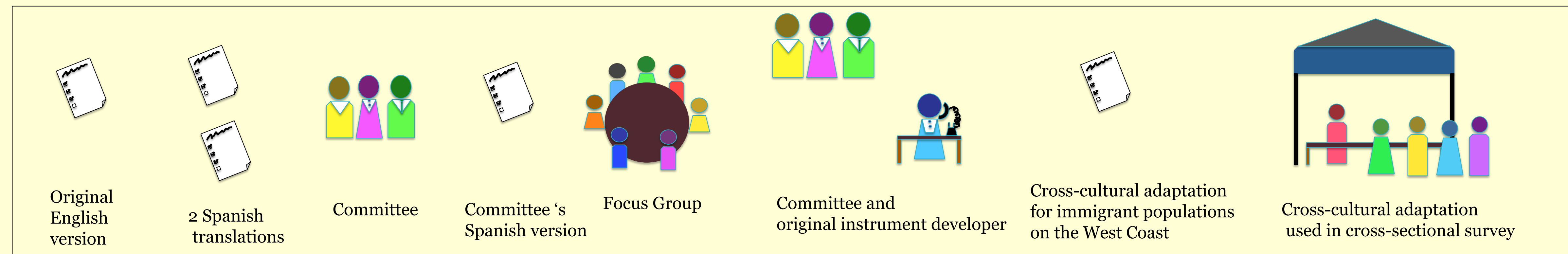**Phase 2 (report of preliminary findings)**

- **Descriptive cross-sectional study**

- **Sample**
  - ❖ Target: 134 Latino adult immigrants (report on n=58)
  - ❖ Inclusion criteria: 1) age ≥ 20 years; 2) Latino/Hispanic; 3) born in a country other than the US; and 4) predominantly Spanish-speaking
  - ❖ Exclusion criteria: known history of diabetes (except history of gestational diabetes)

- **Data Collection**
  - ❖ August 1 to September 30, 2014
  - ❖ Setting: Community food distribution/health promotion events and free medical clinics
  - ❖ Self-administered questionnaire or personal interview
    - ◇ Socio-demographics
    - ◇ Perceived risk of developing T2DM
    - ◇ Block Fruit and Vegetable Screener
    - ◇ Stanford Brief Activity Survey
  - ❖ Measurement of weight, height, and A1c

Original English version	2 Spanish translations	Committee	Committee 's Spanish version	Focus Group	Committee and original instrument developer	Cross-cultural adaptation for immigrant populations on the West Coast	Cross-cultural adaptation used in cross-sectional survey

Results

Phase 1: Lessons Learned Promotores Focus Group (n = 6 women/5 men)
Revised for Mexican/Central American immigrants
Revised formatting for in-person use
Items specific to gender worded for men/women
Ordinal order formatted to be consistent high to low
Made revisions for clarity of 3 items

Phase 2: Sample Characteristics (n=58)		
Age	(Year ±SD)	39.5 ±10.8
Gender	Female	79%
Education	High School Graduate	36%
Income	> $15,000/year	36%
Medical History	Gest Diabetes[1]	13%
	Prediabetes	5%
	Fam Hx of Diabetes	45%
BMI	Overweight	36%
	Obese	43%
A1c	Normoglycemia[2]	81%
	Prediabetes[2]	19%
ADA Risk Score	Lower risk of T2DM[3]	67%
	Higher risk of T2DM[3]	33%
Fruits and Vegetables	< 5 servings/day[4]	84%
	> 5 servings/day[4]	16%
Physical Activity	< 150 minutes/week[5]	50%
	> 150 minutes/week[5]	50%

[1] women only (n= 46)
[2] Normoglycemia A1c<5.7%, Prediabetes A1c≥5.7% and <6.5%, Diabetes A1c≥6.5%
[3] higher risk of T2DM ≥5 points
[4] estimated based on Block Fruit and Vegetable Screener
[5] estimated based on Stanford Brief Activity Survey

Phase 2: RPS-DD Scores (n=58)	Mean ±SD
Personal Disease Risk[1]	1.64 ±0.58
Arthritis	2.28 ±1.29
High blood pressure	2.24 ±1.32
Diabetes	2.08 ±1.14
Cancer	1.83 ±0.99
Heart disease	1.83 ±1.09
Hearing loss	1.60 ±1.06
Kidney failure	1.55 ±0.92
Stroke	1.50 ±0.84
Osteoporosis	1.53 ±0.71
Blindness	1.53 ±0.93
Asthma	1.50 ±0.84
Infections	1.41 ±0.90
Foot amputation	1.14 ±0.90
AIDS	1.14 ±0.44
Comparative Environmental Risk[2]	2.01 ±0.88
Secondary cigarette smoke	2.57 ±1.37
Household chemicals	2.34 ±1.24
Pesticides	2.23 ±1.36
Air pollution	2.09 ±1.20
Extreme weather (hot or cold)	1.93 ±1.12
Driving/riding in automobile	1.81 ±1.13
Violent crime	1.78 ±1.16
Medical X-rays and radiation	1.69 ±0.90
Street/illegal drugs	1.59 ±1.14
Personal Control[3]	2.99 ±0.52
Worry[4]	2.93 ±0.76
Optimistic Bias[5]	2.72 ±0.87
Composite Risk Score[6]	2.11 ±0.32

All scores reported on 4 point Likert scale
[1,2] higher score = higher perceived risk
[3] higher score = more control
[4] higher score = more worry
[5] higher score = more optimistic bias
[6] higher score = more perceived risk

Phase 2: Correctly Identified RPS-DD Knowledge Test Items (n=58)		
Risk Factors	Being Latino/Hispanic	34%
	Having a history of gestational diabetes	36%
	Having a family history of diabetes	62%
	Age > 65 years	38%
Beneficial effects	Eating a healthy diet	60%
	Regular physical activity	74%
	Weight control	74%

Summary

- A Spanish language RPS-DD cross-culturally adapted for immigrant Latinos in California was developed, tested and shown to be equivalent to the original English version RPS
- Final analyses planned upon completion of data collection: compare actual risk with perceived risk; explore factors contributing to perceived risk; assess reliability and validity of a cross-cultural adaptation of a measure of perceived risk of developing diabetes

References: Walker, E.A., et al., *Risk perception for developing diabetes - Comparative risk judgments of physicians*. Diabetes Care, 2003. **26**(9): p. 2543-2548.

Acknowledgements

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