Culturally Adapting Interventions to Promote Healthy Aging among Latinos: Best Practices in Research and Publishing

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Background

- The Administration on Aging projects that between 2008—2030, the Latino population aged 65 years+ will increase by 224% compared to 65% increase for non-Latino white population in same age category.

- As the population ages, Latinos experience a high risk of developing chronic diseases
  - Alzheimer’s disease, other dementias (Haan et al. 2003)
  - Cardiovascular disease (Daviglus et al. 2012)
The Problem

- Chronic disease burden has been associated with CVD risk factors:
  - high cholesterol
  - high blood pressure
  - Diabetes
  - physical inactivity

- Of the major modifiable risk factors, physical inactivity has been found to affect largest segment of population
* From an *ecodevelopmental perspective*, **familial** and **community contexts** are important, but not well charted influences on health behavior (Sallis, Owen, & Fisher, 2008), including behaviors consistent with *prevention of CVD*

* **Social supports** from family, or the absence of such supports constitute important proximal influences on health behavior
Cultural Adaptation

• Primary Aim:
  To generate the culturally equivalent version of a model prevention program.

  Castro, Barrera, & Martinez, 2004
Dimensions of Adaptation

a) Cognitive information
b) Affective motivational
c) Environmental characteristics

* Cultural equivalence

(Castro et al. 2001; Geisinger, 1994; Gonzalez et al. 1995).
Forms of Adaptation
(Castro, Barrera, & Martinez, 2004)

• **Program content**
  – necessary if a consumer group needs/wants certain programmatic content not offered by the original model
  – may be incorporated throughout the curriculum/manual, or may be designed as a complete supplemental module, for example, a module for coping with acculturation conflicts

• **Program delivery**
  – presenting same program content albeit as delivered with changes in:
    (a) *characteristics of the delivery person(s)*—lay health workers rather than health educators;
    (b) *channel of delivery*—internet delivery rather than school classroom; and
    (c) *location of delivery*—church or community-based organization rather than school classroom, etc.
Wellness Motivation Intervention Model

Intervention Strategies  Mediating Process  Behavioral Outcomes  Health Outcomes

Social Network Support
Empowering Education
Motivational Support

Social Contextual Resources
- Social Support
- Community Resources

Behavioral Change Processes
- Self-Knowledge
- Motivation Appraisal
- Self-Regulation

PA Type
Frequency
Duration

Cognitive Health
Depression
QOL
SBP/DBP
BMI
WHR
%Body Fat

(Fleury, 1991)
Fidelity-Adaptation Tension

Competing Aims:

a) to develop universal prevention interventions and implement them with fidelity; and

b) to design prevention interventions that are responsive to the cultural needs of a local community.
Mixed Methods & Forms of Evidence

* **Mixed methods** research examines and ideally *integrates qualitative* text narratives and *quantitative* numeric scores, as complementary forms of research *evidence*.

* These data may be gathered *sequentially* (in two phases) or *concurrently* (in a single phase).
Research Aims

- **Aim 1.** Optimize the cultural relevance of a theory-based intervention by exploring motivational, social and contextual resources for PA among older Hispanic women (Phase I).
  - 1a. What are the motivational factors, social networks, community strengths and resources which may be built upon to foster regular PA in older Hispanic women?
  - 1b. How might a community-based intervention build upon motivational factors, social networks, community strengths and resources in a culturally-relevant way to foster regular PA and related CV health outcomes?
Research Aims

- **Aim 2.** Pilot test the efficacy of the WMI in increasing resources, behavioral change processes variables, the behavioral outcome of PA, and improving CV health outcomes compared with an AC group (Phase II).
  - 2a. WMI participants will demonstrate significant increase in social contextual resources (social support, perceived environmental resources), behavioral change processes variables (self-knowledge, motivation appraisal, self-regulation) compared with AC group.
  - 2b. WMI participants will demonstrate significant increase in intensity, frequency, and duration of regular PA on self-report measures of PA and actigraphy measures compared with AC group.
  - 2c. WMI participants will demonstrate significant beneficial changes on CV health indices including improved body mass index (BMI), body composition, body fat distribution, and reduced systolic and diastolic blood pressure (SBP/DBP) compared with AC group.
Research Aims

• **Aim 3.** Examine acceptability and feasibility of the WMI in older Latino participants (Phase II).
  
  - 3a. What is acceptability of the WMI in older Latino participants as measured by participant evaluation of the intervention protocol (treatment components, mode of delivery)?
  
  - 3b. What is the feasibility of the WMI in older Latino participants as evaluated by measurement of rates of participant attrition and attendance at intervention sessions?
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(Fleury, 1991)
Social Contextual Influences

- Resources that guide behavioral change processes and action in efforts to promote health
  - Social influences
  - Environmental influences
Behavioral Change Processes

- Processes through which individuals create, enact, evaluate, and strengthen patterns of behavioral change
  - Self-knowledge
  - Motivation Appraisal
  - Self-regulation
• Behavioral responses to contextual influences and behavioral change processes

Regular Physical Activity

- Physical Activity Maintenance
  - Physical Activity Minutes per Week
  - Physical Activity Type
  - Steps per day/week
Intervention Design: Phase I

• Formative focus group data
  – Cultural relevance
    • Surface structure
    • Deep structure
  – Theoretical relevance
    • Concept mapping
    • Conceptual congruence
    • Validity of measures
Research Design: Phase II

- Pilot study to evaluate acceptability and effects of the intervention
- Randomized experimental design with repeated measures
  - Intervention group
  - Attention Control group
- Measurement at two time points:
  - T1: Baseline
  - T2: Post-intervention
Intervention Delivery

- Manualized procedures
  - WMI Critical inputs
- Delivery methods
  - 12 weekly 1 hour sessions
  - Language delivery (i.e. Spanish, bilingual)
- Process evaluation
- Index of Procedural Consistency
Analysis

**Aim 1:** Qualitative content analysis, designed to foster identification of data codes and the emergence of data categories, and includes an iterative approach, constant comparison in data analysis, and theoretical sensitivity

- Taped focus group recordings, transcribed in Spanish and then in English by a certified translator.
- Includes Atlas/Ti software to store all interview texts, field notes, codes, code definitions, and categories. Transcribed data will be analyzed through qualitative content analysis.

**Aim 2:** Magnitude of effect on social contextual resource, behavioral change process, PA, CV health outcomes

- Repeated measures ANOVA

**Aim 3:** Descriptive Statistics
Best Practices: Finding the Balance

1. Define the fidelity/adaptation balance
2. Assess community concerns
3. Review targeted program to determine fidelity/adaptation issues
4. Examine program’s theory of change, logic model, core components
5. Determine needed resources
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11. Include fidelity/adaptation issues into program evaluation
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GSA

• The nation's oldest and largest interdisciplinary organization devoted to research, education, and practice in the field of aging.
  – 5,500+ interdisciplinary members around the world touching all facets of aging
• Mission
  – Promote multi- and interdisciplinary research in aging
  – Translate and disseminate research findings
  – Promote/advocate for education/awareness on aging across disciplines
  – Foster application of research into policy development
• To view past ESPO Professional Development webinars, along with other GSA webinars, visit geron.org/webinar.
• Email espo@geron.org for additional questions.