PROMOTING PHYSICAL ACTIVITY AMONG LATINAS IN FAITH BASED SETTINGS: DEVELOPMENT OF AN IMPLEMENTATION STUDY

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Faith in Action

- Faith in Action (Fe en Acción) was a two-group randomized controlled trial that intervened at multiple levels to increase physical activity among churchgoing Latinas.

- Church members (promotoras) were hired and trained to implement a physical activity intervention in their churches and nearby communities.
# Sociodemographic and anthropometric characteristics

<table>
<thead>
<tr>
<th>Characteristics (n=436)</th>
<th>M (SD) / %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (SD)</td>
<td>44.4 (9.6)</td>
</tr>
<tr>
<td>Married or coupled (%)</td>
<td>77.4 %</td>
</tr>
<tr>
<td>Employed (%)</td>
<td>65.7 %</td>
</tr>
<tr>
<td>Household income (&lt; 2,000) (%)</td>
<td>63.3 %</td>
</tr>
<tr>
<td>Education (&lt; HS) (%)</td>
<td>54.9 %</td>
</tr>
<tr>
<td>Country of Birth (Mexico) (%)</td>
<td>90.8 %</td>
</tr>
<tr>
<td>Mean BMI (SD)</td>
<td>30.3 (6.22)</td>
</tr>
</tbody>
</table>
12 month follow up

Mixed effects models evaluating intervention for primary and secondary outcomes

<table>
<thead>
<tr>
<th>Condition</th>
<th>Intervention</th>
<th>Control</th>
<th>Diff (inter-control)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adj Mean</td>
<td>SE</td>
<td>Adj Mean</td>
</tr>
<tr>
<td>MVPA (accelerometer)</td>
<td>4.93</td>
<td>0.05</td>
<td>4.78</td>
</tr>
<tr>
<td>Leisure time MVPA self report</td>
<td>4.86</td>
<td>0.05</td>
<td>4.47</td>
</tr>
<tr>
<td>BMI</td>
<td>30.2</td>
<td>0.14</td>
<td>30.6</td>
</tr>
<tr>
<td>Calories from fat</td>
<td>29.5</td>
<td>0.2</td>
<td>29.5</td>
</tr>
</tbody>
</table>

1 Mixed effects or generalized linear mixed models were used to adjust for the clustering effects of churches and to account for repeated measures over M2 and M3. If the time by condition interaction term was not significant, the term was dropped and the condition main effect was tested. All analyses were adjusted for the baseline measure of the outcome, age, marital status, employment and education.

2 Negative binomial error distribution. Results are shown in logged units.

3 Binomial error distribution (Logistic model)
Need to consider the organization

- Sustainability
- Dissemination and scale-up
  - *Promotoras* noted it was easier to implement the program when there was **church support**
Implementation substudy

Aim: To identify church-specific factors affecting implementation of *Fe en Acción*.

**Determinants of Implementation Effectiveness in a Physical Activity Program for Church-Going Latinas**

Megan Beard, MPH; Emmeline Chuang, PhD; Jessica Haughton, MPH; Elva M. Arredondo, PhD

Faith-based interventions show promise for reducing health disparities among ethnic minority populations. However, churches vary significantly in their readiness and willingness to support these programs. Semistructured interviews were conducted with priests, other church leaders, and lay health advisors in churches implementing a physical activity intervention targeting Latinas. Implementation effectiveness was operationalized as average 6-month participation rates in physical activity classes at each church. Factors facilitating implementation include church leader support and strength of parishioners’ connection to the church. Accounting for these church-level factors may be critical in determining church readiness to participate in health promotion activities.

**Key words:** faith based, Latinas, physical activity, program implementation

LATINOS, who are the largest and fastest growing ethnic minority group in the United States,\(^1\) however, faith communities may vary significantly in their motivation and/or capacity to serve as conduits for their physical activity intervention.
Complex Innovation Implementation (CII) Framework

**Implementation Climate**
- **Leadership support**
- **Resource availability**

Priest makes mass announcements, demonstrates knowledge of program, etc.; Staff places announcements in the bulletin, etc.

Church leaders report having space to conduct exercise classes, time to promote program, etc.

**Innovation Values Fit**

Church leaders report that *Faith in Action* coincides with the mission of values of the church

**Implementation Effectiveness**

Average participation rates in physical activity classes by enrolled participants during the first 6 months

Methods

• Five churches from the physical activity intervention participated

• Participants: 15 key stakeholders

• Data analyses: Two independent coders

• Outcome variable=high vs. low participation rate
# Results

**TABLE 4.** Church-Specific Factors Affecting Implementation of *Faith in Action*

<table>
<thead>
<tr>
<th></th>
<th>Priest Support</th>
<th>Church Staff Support</th>
<th>Innovation-Values Fit</th>
<th>Resource Availability</th>
<th>Parishioner Engagement</th>
<th>Outcome: Implementation Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Church A</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Church B</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Church C</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
<td>High</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Church D</td>
<td>Low</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Church E</td>
<td>Medium</td>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
</tr>
</tbody>
</table>
Modified Conceptual Model

Implementation Climate
- Leadership support
- Resource availability
- Parishioner engagement

Innovation Values
- Fit

Implementation Effectiveness

Adapted from Helfrich, Weiner, McKinney, Minasian (2007); Weiner, Lewis, Linnan (2009); Aarons, Hurlburt, & Horwitz (2011);
Follow up steps: using multiple frameworks to inform formative phase and implementation

- Constructs from more comprehensive implementation frameworks
  - Damschroder, et al., CFIR
  - Schell, et al., sustainability
  - Aarons et al., EPIS model of implementation

- Multiple perspectives on characteristics of the intervention
  - outer setting (e.g., participant needs, cosmopolitanism), implementers involved, etc. will likely yield an effective intervention.
Applying the Consolidated Framework for Implementation Research (CFIR) and Schell et al.

<table>
<thead>
<tr>
<th>Intervention level</th>
<th>Data collection instrument</th>
<th>Framework</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotoras</td>
<td>Surveys, Focus groups</td>
<td>Schell et al/CFIR CFIR</td>
<td>In person (self-administered) In person</td>
</tr>
<tr>
<td>Participant</td>
<td>Surveys, Interviews</td>
<td>Schell et al Schell et al/CFIR</td>
<td>Mailed (self-administered) Phone</td>
</tr>
<tr>
<td>Church leaders (former and new)</td>
<td>Interviews</td>
<td>CFIR</td>
<td>In person</td>
</tr>
</tbody>
</table>

Use constructs of CFIR to develop promotora focus group guides

- Outer setting
  - “What other organizations could partner with your church to promote PA?” (cosmopolitanism)

- Intervention characteristics
  - “Which of your responsibilities as a promotora was most difficult and why?” (complexity)

- Characteristics of Individuals
  - “What characteristics do you think would make someone a successful promotora?” (self-efficacy)
Use constructs of Schell et al to develop participant survey

- **Political Support**
  - “To what extent do leaders in your church do the following?”
    - Engage in PA

- **Public Health Impact**
  - “To what extent did each of the following components motivate you to be active?”
    - PA classes
    - Reminder calls
    - Health handouts
    - MI calls
Use constructs of CFIR to develop church leader interview guides

• Outer setting
  • “How does your church partner with other institutions or organizations? Can you provide an example?” (cosmopolitanism)

• Intervention characteristics
  • “What was difficult about having the Faith in Action program in your parish compared to other programs?” (relative advantage)

• Characteristics of Individuals
  • “How important is physical health to you?” (beliefs about the intervention)
Preliminary findings from the *promotora* focus groups

- Provide a training for church leaders to help implement program activities
  - Consider promoting PA among church leaders

- Host more frequent “*Noche Familiar*” (family night) events with participants and church leaders
  - These efforts could create more social cohesion

- Add nutrition component to intervention
Next step: Implementation study

Formative phase: interview church leaders, *promotoras* and participants

Implementation study

Dissemination study
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Physical Activity Promotoras
Cancer Prevention Promotoras
Student interns
Participants

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