Reaching At-Risk African-American Women for Diabetes Prevention: Fit Body and Soul

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Aims
- Describe baseline predictors of diabetes in African American women enrolled in the faith-based diabetes prevention program: Fit Body and Soul (FBAS)
- Describe retention of the women over the one-year study

Methods
- FBAS is a single-blinded, cluster randomized, community trial in 20 African American churches that tests the effectiveness of the faith-based adaptation of the Group Lifestyle Balance (non-diabetic inclusion criteria was HbA1C<7.0 or FPG<126).
- Standard descriptive statistics on baseline data included:
  - Demographics
  - Measures of obesity: body mass index, waist circumference, A Body Shape Index
- History of diabetes: parental and/or gestational
- Blood pressure
- Biomarkers of glucose impairment: fasting plasma glucose (FPG), HbA1C
- Enrollment reported at baseline, 12 weeks, and 1 year
- Sessions were 12 core weekly plus 6 post-core (PC) monthly
- Incentives included:
  - Individual Participant:
    - Baseline: t-shirt & binder
    - Weekly: chance at door prize
    - Week 6: $25 gift card
    - Week 10: pedometer
    - Week 12: $50 gift card
    - PC 3: resistance bands (treatment group only)
    - 1 Year: $75 gift card
  - Church Health Advisor/Group Leader:
    - Start: $100/day training up to $200
    - Week 12: $500
    - PC 6: $250
    - Church: $1500

Background
- Obesity and diabetes affect African American women disproportionately compared to White women.
- Group Lifestyle Balance and other translations of the Diabetes Prevention Program rarely address African Americans in community settings.
- Few translation studies report retention rates of African Americans after 1 year.
- Retention rates in the Diabetes Prevention Program were reported to be lower in African Americans compared to Whites.
- Obesity and diabetes are prevalent in African American women necessitating successful strategies to reach and retain African American women in treatment programs.

Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
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<tbody>
<tr>
<td>Age</td>
<td>46 ± 11 years</td>
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<tr>
<td>Some college education</td>
<td>80%</td>
</tr>
<tr>
<td>Employed full-time</td>
<td>72%</td>
</tr>
<tr>
<td>Married</td>
<td>49%</td>
</tr>
<tr>
<td>Body Mass Index (BMI)</td>
<td>36 ± 7</td>
</tr>
<tr>
<td>Overweight</td>
<td>116 (23%)</td>
</tr>
<tr>
<td>Class I Obesity</td>
<td>148 (29%)</td>
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<tr>
<td>Class II Obesity</td>
<td>115 (23%)</td>
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<tr>
<td>Class III Obesity</td>
<td>125 (25%)</td>
</tr>
<tr>
<td>Waist circumference</td>
<td>107 ± 15 cm</td>
</tr>
<tr>
<td>A Body Shape Index (ABSI)</td>
<td>0.077 ± 0.005</td>
</tr>
<tr>
<td>Diabetes in a parent</td>
<td>42%</td>
</tr>
<tr>
<td>Gestational diabetes</td>
<td>6%</td>
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<tr>
<td>Blood pressure</td>
<td>130 ± 17 / 82 ± 10 mmHg</td>
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<tr>
<td>Fasting plasma glucose</td>
<td>89 ± 10 mg/dl</td>
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<tr>
<td>HbA1C</td>
<td>5.8 ± 0.5</td>
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<tr>
<td>(8.4% had HbA1C &gt; 6.5)</td>
<td></td>
</tr>
</tbody>
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Figure 1. Calculation for A Body Shape Index (Krakauer, 2012).

Figure 2. The percentage of women retained in the Fit Body and Soul program over one year.

Conclusions
- This well-educated group of African American women had multiple risk factors for diabetes.
- Faith-based communities hold promise for reaching and retaining at-risk African American women for research and diabetes prevention.
- Further analysis will determine predictors of retention.

References

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