

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

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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.

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

$$\text{ABSI} = \frac{\text{Waist circumference in meters}}{\text{BMI}^{2/3} \times \text{Height in meters}^{1/2}}$$

Figure 1. Calculation for A Body Shape Index (Krakauer, 2012).

- 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

Results

Table 1. Baseline Characteristics (n = 504 women)

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

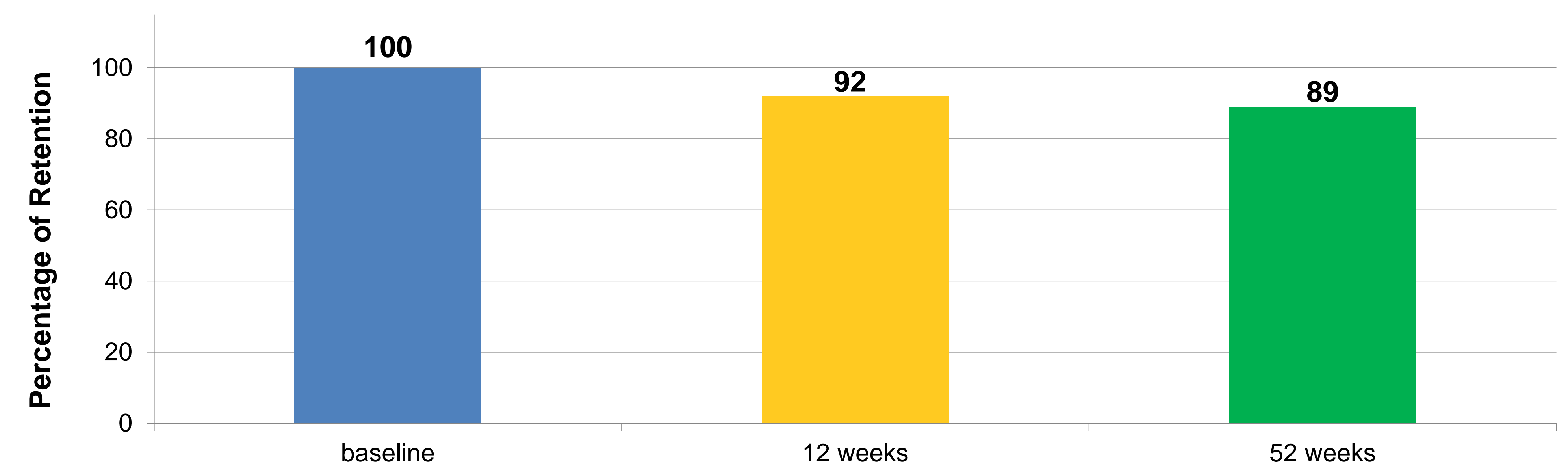


Figure 2. The percentage of women retained in the Fit Body and Soul program over one year.

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

Krakauer, N. Y., & Krakauer, J. C. (2012). A new body shape index predicts mortality hazard independently of body mass index. PLoS ONE, 7(7), e39504. <http://dx.doi.org/10.1371/journal.pone.0039504>

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