# EBAN

## Best Evidence – Risk Reduction

## INTERVENTION DESCRIPTION

**Target Population**
- African American HIV serodiscordant heterosexual couples

**Goals of Intervention**
- Increase overall condom use
- Increase consistent condom use
- Reduce unprotected sex†
- Reduce STD incidence

**Brief Description**

*Eban* is a culturally congruent, couple-based intervention consisting of 8 weekly sessions delivered by male and female African American co-facilitators. The intervention includes 4 sessions delivered to individual couples (sessions 2, 3, 4 & 8) and 4 sessions delivered to groups of 3 to 5 couples (sessions 1, 5, 6 & 7). The African concept of Eban, or fence--a symbol of safety, security, and love within one's family and relationships--is incorporated throughout the intervention. The principles of Nguzo Saba (unity, self-determination, collective work and responsibility, cooperative economics, purpose, creativity and faith) are emphasized in intervention sessions to motivate couples to use condoms consistently to protect each other and their community. Individual couple sessions focus on interpersonal factors associated with sexual risk reduction, including communication, problem solving, monogamy, and negotiation skills. Skills taught in the individual couple sessions are reinforced in the group sessions. Group sessions address community-level factors such as increasing positive norms for condom use, reducing stigma associated with being an African American couple affected by HIV, and increasing social support for HIV risk reduction. All sessions after the first one follow the same general format: (1) review the highlights of the previous session; (2) review homework assignments and difficulties encountered; (3) present and discuss HIV/STD topics; (4) model and role play risk reduction skills; (5) revisit weekly progress for each couple's risk reduction goals, identify barriers, and reset goals for the upcoming week; and (6) review new homework.

**Theoretical Basis**
- Social Cognitive Theory
- Afrocentric Paradigm
- Nested Ecological Theory

**Intervention Duration**
- Eight weekly 2-hour sessions

**Intervention Setting**
- Not reported

**Deliverer**
- Male and female African American co-facilitators

**Delivery Methods**

- Goal setting
- Group discussion
- Homework
- Modeling
- Risk reduction supplies (condoms)
- Role playing

### INTERVENTION PACKAGE INFORMATION

**An intervention package is not available at this time.** Please contact **Willo Pequegnat**, PhD, National Institute of Mental Health, 6001 Executive Boulevard, Room 6111, Mailstop 9619, Rockville, MD 20852.

**Email**: **willo.pequegnat@nih.gov** for details on intervention materials.

## EVALUATION STUDY AND RESULTS

**The original evaluation was conducted in Atlanta, GA; Los Angeles, CA; New York, NY; and Philadelphia, PA between 2003 and 2007.**

**Key Intervention Effects**

- Increased condom protected sex
- Increased consistent condom use
- Decreased unprotected sex†

**Study Sample**

The baseline study sample of 535 couples is characterized by the following:

- *100% black or African American couples (i.e., ≥1 partner of each couple self-identified as African American)*
- *50% female, 50% male*
- *100% heterosexual*
- *Mean age of 43 years*
- *41% completed high school and 28% completed at least some college*

**Recruitment Settings**

HIV care clinics, other health clinics, AIDS service organizations, community-based organizations, targeted street outreach, word of mouth, and various media outlets

**Eligibility Criteria**

Couples were eligible if *each partner* was at least 18 years old, did not plan to relocate beyond a reasonable distance from the study site, was aware of the other's HIV serostatus, had been in this relationship for at least 6 months, and intended to remain together for at least 12 months; *at least 1 partner* reported having unprotected sex† with the other in the previous 90 days, reported not planning a pregnancy within 18 months, and self-identified as African American or black; and *only 1 partner* was HIV seropositive and had known that status for at least 3 months.

**Assignment Method**

Couples (n = 535 couples; n = 1070 men and women) were randomly assigned (as groups of 3 to 5 couples) to 1 of 2 study arms: couple-focused Eban HIV/STD risk reduction intervention (n = 260 couples, 520 women and men) or an individual-focused health promotion comparison (n = 275 couples; 550 women and men).

**Comparison Group**

The health promotion comparison consisted of 8 weekly 2-hour sessions structurally similar to Eban and delivered by male and female African American co-facilitators. Content focused on behaviors linked to risk of heart disease, hypertension, stroke, and certain cancers, also addressed adherence to HIV and other medications, and provided HIV/STD testing and counseling. It was designed to increase healthy behaviors such as fruit and vegetable consumption, physical activity, cancer screening, and medication adherence and to decrease tobacco, alcohol, and drug use.

**Relevant Outcomes Measured and Follow-up Time**

- Sex behaviors (including the proportion of condom protected vaginal or anal sex acts with study partner during last 90 days; 100% consistent condom use with study partner during last 90 days; number of unprotected vaginal or anal sex† with study partner during last 90 days; and number of concurrent partners in the past 90 days) were measured immediately post-intervention and at 6 and 12 months post-intervention. Partner responses were combined to form couple-level outcomes.
- Biologic outcome (couple-level lab-confirmed STD incidence for chlamydia, gonorrhea, and trichomoniasis) was measured immediately post-intervention and at 6 and 12 months post-intervention. Couple was considered positive if either partner was an incident case.

**Participant Retention**

- Eban HIV/STD risk reduction intervention
  - 82% retained at 6 months
  - 80% retained at 12 months

- Health promotion comparison
  - 80% retained at 6 months
  - 83% retained at 12 months

**Significant Findings**

- Intervention couples reported a significantly higher mean proportion of condom protected sex acts than comparison couples at the 6-month assessment (Unadj RR = 1.37 [1.10, 1.72], p = 0.008; Adj RR = 1.22 [1.05, 1.41], p = 0.01]) and at the 12-month assessment (Unadj RR = 1.34 [1.04, 1.72], p = 0.02).
- A significantly greater percentage of intervention couples reported 100% consistent condom use than comparison couples at the 6-month assessment (Unadj RR = 1.44 [1.13, 1.83], p = 0.006; Adj RR = 1.57 [1.27, 1.94], p < 0.001) and at the 12-month assessment (Unadj RR = 1.5 [1.07, 1.71], p = 0.02; Adj RR = 1.40 [1.13, 1.75], p = 0.003).
- Intervention couples reported a significantly lower log mean of unprotected sex† than comparison couples at the 6-month assessment (Unadj mean difference = -1.65 [-2.41, -0.91], p < 0.001; Adj mean difference = -1.79 [-2.50, -1.08], p < 0.001) and at the 12 month assessment (Unadj mean difference = -0.99 [-1.76, -0.22], p = 0.001; Adj mean difference = -1.15 [-1.88, -0.42], p = 0.002).

**Considerations**

- Across the entire 12-month follow up, which includes the immediate post-intervention assessment time point that does not meet the follow-up criterion, intervention couples reported a significantly higher mean proportion of condom protected sex acts, 100% consistent condom use, and lower log mean of unprotected sex† than comparison participants in both unadjusted and adjusted models.
- There were no significant intervention effects on STD incidence or likelihood of having a concurrent partner.
- There is no substantial missing data (< 10%)* and no significant difference between study arms in attrition.*
- If one partner of a couple was missing at an assessment, data were imputed for that partner.*
- Married discordant African American couples or those who were insured were more likely to be retained.*

***Information obtained from author**
**†Unprotected sex measured as sex without a condom**

## REFERENCES AND CONTACT INFORMATION

El-Bassel, N., Jemmott, J. B., Landis, J. R., Pequegnat, W., Wingood, G. M., Wyatt, G. E., . . . the NIMH Multisite HIV/STD Prevention Trial for African American Couples Group. (2010). National Institute of Mental Health Multisite Eban HIV/STD prevention intervention for African American HIV serodiscordant couples: A cluster randomized trial. *Archives of Internal Medicine, 170*, 1594-1601.

NIMH Multisite HIV/STD Prevention Trial for African American Couples Group. (2008). Eban HIV/STD risk reduction intervention: Conceptual basis and procedures. *JAIDS Journal of Acquired Immune Deficiency Syndromes, 49*, S15-S27.

NIMH Multisite HIV/STD Prevention Trial for African American Couples Group. (2008). Methodological overview of an African American couple-based HIV/STD prevention trial. *JAIDS Journal of Acquired Immune Deficiency Syndromes, 49*, S3-S14.

**Researcher: Willo Pequegnat, PhD**
National Institute of Mental Health
6001 Executive Boulevard
Room 6111, Mailstop 9619
Rockville, MD 20852
**Email: willo.pequegnat@nih.gov**