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# **Eban Health Promotion Intervention: Conceptual Basis and Procedures:**

The NIMH Multisite HIV/STD Intervention Trial for African American Couples Group

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#### **Abstract**

This article concerns the health promotion intervention that served as the comparison condition in Project Eban, the NIMH Multisite HIV/STD Prevention Trial for African American Couples. Considerable research has documented the high rates of chronic diseases, including heart disease, cancer, stroke, and diabetes, among African Americans. Many of these diseases are tied to behavioral risk factors—the things that people do or do not do, their diet, the amount of exercise they get, and their substance use practices. The Eban Health Promotion Intervention was designed to increase healthful behaviors, including physical activity, healthful dietary practices, ceasing cigarette smoking and alcohol abuse, practicing early detection and screening behaviors, and improving medication adherence. As a comparison condition, the Eban Health Promotion Intervention was designed to be structurally similar to the Eban HIV/STD Risk Reduction Intervention. This article describes the intervention and how it was developed, integrating social cognitive theory with information collected in formative research to ensure that the intervention was appropriate for African Americans affected by HIV. Besides testing the efficacy of an HIV/STD risk reduction intervention for African American serodiscordant couples, then, Project Eban also tests the efficacy of an intervention addressing many of the other health problems common in this population.

# Introduction

This article describes the health promotion intervention that served as the comparison condition in Project Eban. The intervention was designed to reduce the risk of chronic diseases among African American adults. The intervention seeks to increase healthful behaviors, including physical activity, healthful dietary practices, ceasing cigarette smoking and alcohol abuse, and practicing early detection and screening behaviors. In addition, it seeks to improve medical adherence, including medication adherence and regular doctor visits for preventive care. Two important characteristics of efficacious behavioral interventions are that they are based on an explicit theoretical framework and are tailored to the target population. Accordingly, in developing the intervention, we drew upon social cognitive theory (Bandura, 1982, 1986), conducted preliminary qualitative research with the population, and integrated the preliminary data into the theoretical framework to tailor the intervention to the population.

# Theoretical and Conceptual Basis for Intervention

Bandura's social cognitive theory is a social learning theory and shares the assumptions of such theories that most human behavior is acquired and that fundamental principles of learning, including drive, stimulus, response, and reward, are important to the development of behavior. Social cognitive theory has been applied to a wide range of behaviors. Its key constructs include self-efficacy, outcome expectancy, and behavioral skills. Self-efficacy is a person's confidence

in his or her ability to execute successfully a given behavior. Unless people believe they can produce desired results and avoid detrimental ones by their actions, they have little incentive to act or to persevere in the face of difficulties. Self-efficacy affects the challenges people choose to undertake, how much effort they expend in the endeavor, how long they persevere in the face of obstacles and failures, and whether failures are motivating or demoralizing. According to social cognitive theory, then, people who have self-efficacy to engage in physical activity would be more likely to persist in their efforts to meet leisure-time physical activity goals in the face of obstacles than those with less self-efficacy.

The second social cognitive construct of interest is outcome expectancy—a person's perception that a given behavior will lead to specific consequences. Three general classes of outcome expectancies are relevant here: physical consequences, which can be perceived as beneficial or detrimental, social consequences, which can be perceived as favorable or adverse, and self-evaluative consequences, which can be perceived as positive or negative. People who perceive that healthful food is delicious are more likely to follow a healthful diet than are those who perceive that healthful food is unappetizing.

The third social cognitive construct is behavioral skills, which concern a person's ability to execute successfully a given behavior. Although people who have self-efficacy and who perceive positive consequences of a behavior may be highly motivated to perform that behavior, they still may not be able to actually execute the behavior unless they have the requisite skills.

Most models of health behavior are concerned mainly with predicting and understanding behaviors and offer little guidance on how to change them. An important advantage of the social cognitive theory is that it not only helps to explain behavior, but also posits strategies to change them. Two behavior-change strategies are relevant. Social cognitive theory would suggest the use of guided practice with "performance accomplishments" providing rewards, which should increase skill and self-efficacy. Second, observational learning or vicarious experience—observing other people and the reinforcements they receive—builds skills and self-efficacy about a behavior and can be employed to teach strategies for dealing effectively with troublesome situations.

# Intervention Design

We took the information gathered from the focus groups into account in developing the final version of the intervention (cite article on informing the intervention this volume). In deciding on an appropriate comparison condition to incorporate in this trial, we carefully considered the elements of the Eban HIV Risk Reduction Intervention that were critical to sexual-risk reduction and those that were not critical. We reasoned that critical elements should distinguish the Eban HIV Risk Reduction Intervention from the comparison intervention; non-critical elements, in contrast, can be held constant between the two interventions. Indeed, the fewer the differences between the interventions in non-critical elements, the easier it would be to attribute sexual-risk behavior change to the critical elements of the Eban HIV Risk Reduction Intervention. Accordingly, we designed the Eban Health Intervention to be structurally similar to the Eban HIV Risk Reduction Intervention.

#### Structure

The Eban Health Promotion Intervention employs the same number, type, duration, and sequencing of sessions with individual couples and with groups of couples. There were eight two-hour sessions, including eight hours of couples-alone activities, six hours of couples-group activities, and two hours of single-gender group activities, implemented by African American male and female co-facilitators who use standardized intervention manuals. The sessions are

designed to be delivered during the day, evening, or weekend, depending on the participants' availability.

This intervention also draws upon social cognitive theories, targets health problems that are major causes of morbidity and mortality for the study population, and is designed to be acceptable, beneficial, and engaging to the participants. It controls for special attention, couple participation, couples group interaction, involvement with caring facilitators, and experiential activities that, in the theoretical framework, are not critical elements mediating sexual-risk behavior. The Eban Health Promotion Intervention differs from the Eban HIV/STD Risk Reduction Intervention in that it focuses on each individual's behaviors and goals rather than the behaviors and goals of the couple as a unit.

#### Content

The Eban Health Promotion Intervention was designed to influence knowledge, self-efficacy, outcome expectancy, and behavioral skills regarding preventive, early detection, and screening behaviors for heart disease, hypertension, cancer, and hepatitis C as well as adherence to treatment regimens. The specific targeted behaviors included physical activity, consumption of fruits and vegetables, limited consumption of fats, avoidance of cigarette smoking, limited use of or avoidance of alcohol, prostate cancer screening, breast cancer screening, and medication-regimen adherence. Emphasis was placed on increasing self-efficacy and skills to perform these behaviors, increasing the perceived positive consequences of the behaviors, and decreasing the perceived negative consequences of the behaviors.

The intervention includes interactive activities, videos, discussions, experiential exercises, and role-play activities. It highlighted participants' health behaviors and health risks to encourage them to take responsibility for their own health. Each activity lasted a brief time, and some required participants to get out of their seats, maintaining their interest and attention, which might fade during lengthy lectures and discussions. Content was introduced and reinforced across the intervention. Thus, Session 1 provides an overview of the goals and content of the intervention. Sessions 2-4, which were individual couples' sessions, introduced intervention content regarding nutrition, exercise, early detection, smoking, alcohol, and adherence. Sessions 5–7 reinforced the same content with upbeat group-level activities that facilitated interaction and permitted the group members to support each other. The last session reviewed all of the content. We designed and produced three physical exercise videos to accompany the health promotion curriculum. A 24-minute video was designed for Session 2, an individualcouples session. A 16-minute video focused on aerobic exercise was designed for Session 5, a couples-group session. A 27-minute video, designed to be taken home, encouraged participants to engage in resistance training and aerobic exercises safely. Sessions 1-7 included in the workbook binder a take-home assignment, which was reviewed at the subsequent session. Participants were given workbook binders containing worksheets and other activity forms used in the program. Throughout the sessions, they were given additional handouts to put in the binder. When all eight sessions of the program were completed, the participant's binder contained all of the worksheets and handouts in one handy package for future reference. Table 1 contains the curriculum activity outline.

# **Description of Intervention Sessions**

Overall, the Eban Health Promotion Intervention taught the participants that many health problems can be prevented by changing personal behaviors, including physical activity, eating habits, cigarette smoking, alcohol and drug use, and medication adherence. Each group session began with an activity called "Group Welcome" and ended with a "Session Closing." Participants and facilitators formed a tight circle with their chairs. The facilitators spoke and then participants around the circle spoke in turn. In Session 1, this approach was used to

introduce the group members to each other. In later sessions, it was used to allow participants to share their feelings and observations about the group and the program. In a "Group Guidelines" activity, participants established guidelines for establishing a safe, comfortable, and cohesive environment.

#### Session 1: Welcome and Black/African American Health Issues and Assessment

Session 1 includes Module 1 "Getting to Know You," which was implemented to all participants in a group, and Module 2 "Assessing One's Health," in which the participants were separated into single-gender groups. The goals of Module 1 were to introduce participants to the purpose of the program and to each other, instill a sense of personal investment in the program, and build group cohesion, comfort, and feelings of respect, safety, and trust. Other goals of Module 1 were to introduce concepts of the prevention, early detection, and control of disease and the health problems affecting black/African Americans.

In the activity "Introduction of Prevention, Detection, and Control," brainstorming focused on the concepts of prevention, early detection, and control, including what they were, why they were important, and examples of strategies. In the activity "Diseases that Affect the black/ African American Community," brainstorming focused on what it means to be healthy; diseases that affect the black/African American community; risk factors for such diseases; identifying which of them can be prevented, detected, or controlled; and specific strategies for achieving these goals.

Participants were then divided into two single-gender groups each led by the same-gender facilitator to address gender-related health issues. The structure was the same in both groups. Participants focused on diseases that affect black/African American women or men depending on the group. The women focused on breast cancer, cervical cancer, ovarian cancer, and uterine cancer; the men focused on prostate cancer and testicular cancer. Prevention, early detection, and control were covered. Then the "Health Risk Assessment" activity highlighted their personal behaviors that placed them at risk for various diseases, and motivated them to begin to modify those behaviors.

#### Session 2: Prevention: Exercise and Nutrition

Session 2 was an individual couple session that included Module 3 "Exercise—You Are What You Do" and Module 4 "Nutrition—You Are What You Eat." Module 3 sought to increase knowledge about the impact of exercise on health, particularly heart disease, high blood pressure, and diabetes, and to provide strategies for making exercise a part of a daily routine. Participants reviewed their take-home assignment from the previous session and discussed barriers to accomplishing their short-term goals and how they might overcome them. They (a) assessed their current physical activity; (b) learned to distinguish among three types of exercises—aerobic, strength-building, and flexibility-increasing exercises; and (c) learned

guidelines for amount of physical activity each week. They were given pedometers, exercise bands, and a home video illustrating their use and identifying three levels of exercise to choose from depending on their desire and fitness level. The lowest level involved exercises that could be done seated. Participants developed their own daily exercise routines.

In Module 4, participants learned that diet plays an important role in the etiology and pathogenesis of specific chronic diseases, including heart disease, stroke, hypertension, cancers (of the esophagus, stomach, colon, breast, lung, and prostate), diabetes, and chronic liver disease. The roles of fat intake in increasing the risk of cancers of the colon, prostate, and breast and the roles of diets high in plant foods, including fruits, vegetables, legumes, and wholegrain cereals, in reducing risk of heart disease, colon cancers, and diabetes were discussed. Participants learned about the "Food Pyramid" guidelines for healthful eating and about the 5-A-Day Diet, which suggests consuming daily 5 to 9 servings of a combination of fruit and vegetables, especially green and yellow vegetables and citrus fruits. Sources of excess fat among African Americans, including fats added in cooking, frequent use of frying to cook food, use of mayonnaise (e.g., potato salad), and use of sauces and gravies on meats, were covered (Kumanyika & Odoms, 2001). The health benefits of specific fruits and vegetables, barriers to following the 5-A-Day diet, strategies for overcoming the barriers, and using fruits and vegetables as snack foods were discussed. In addition, proper preparation of vegetables was discussed—namely, that vegetables should not be overcooked to the point where they are mushy and lose their nutritional value.

Participants learned about Body Mass Index (BMI) and the role of caloric intake and expenditure. Thus, participants learned that obesity develops because of insufficient physical activity, overeating, or both. The association of obesity with increased risk of heart disease, stroke, hypertension, diabetes, and endometrial cancer was discussed. Participants were taught to identify their personal Body Mass Index (BMI) and whether they were underweight, normal weight, overweight or obese. The facilitators emphasized the importance of balancing food intake and physical activity to maintain a healthful body weight. The take-home assignment was to use the Food Pyramid Guide and the 5-A-Day Diet to create a menu for healthful meals over the next week and follow it.

#### Session 3. Prevention, Early Detection, and Screening

Session 3, an individual couple session, included Module 5 "Prevention: Smoking, Drinking, and Your Health" and Module 6 "Early Detection and Screening." In Module 5, participants learned about the harmful health effects of cigarette smoking and of alcohol abuse, particularly for those infected with hepatitis C. Participants reviewed their take-home assignment from the previous session and discussed barriers to implementing their healthful menu during the past week and how they might overcome those barriers. They learned that consumption of alcoholic beverages is related to health risks. Facilitators made a distinction between the effects of moderate intake and excessive intake, or alcohol abuse. Participants learned that moderate alcohol drinking is associated with a lower risk of heart disease, whereas excessive alcohol consumption increases the risk of heart disease, hypertension, stroke, chronic liver disease, and cancers of the oral cavity, pharynx, esophagus, and larynx.

Participants were advised that alcohol consumption is not recommended for those who do not normally drink alcoholic beverages. For those who drink, the message was that consumption should be limited to two or fewer drinks per day. Participants were advised that pregnant women and persons with liver disease (e.g., hepatitis C infection) should abstain from alcohol consumption. In addition, they viewed and discussed the video "How to Begin a New Healthier Life by Stopping Smoking," which covered effects of smoking on health, healthful alternatives to smoking, and strategies to quit. Afterward, participants discussed personal barriers to

quitting smoking and to limiting alcohol consumption and how they could overcome those barriers.

In Module 6, participants learned about early detection strategies regarding hepatitis C, cervical cancer, breast cancer, prostate cancer, and colon cancer. In a single-gender activity, women learned about breast cancer and breast self-examination (BSE), clinical breast examination, and mammograms. The female facilitator demonstrated breast self-examination using a breast vest and then the female participant practiced it. The female participant's take-home assignment was to talk to another woman about what she learned about breast cancer and BSE in the session. In a concurrent single-gender activity, men learned about the prostate, prostate cancer, and the prostate-specific antigen blood test (PSA) and digital rectal examination to detect prostate cancer. The take-home assignment was to talk to another man about what he learned in the session regarding prostate cancer and screening.

#### **Session 4: Communicating with Your Provider**

Session 4, an individual couple session, included Module 7 "Communicating with Your Health Care Provider" and Module 8 "Medication Adherence: Following Your Health Care Provider's Advice." In Module 7, participants discussed potential problems in contacting their health care providers, including physicians, nurses, pharmacists, and medical social workers, as well as ways to surmount those problems. Participants considered guidelines to communicate effectively with their providers on the telephone and face-to-face during a visit. Co-facilitators modeled an effective call. Role-play scenarios in which participants took turns role-playing patients and one of the facilitators role-played the health care provider were critiqued according to guidelines for effective communication and discussed. Participants were taught techniques for effective communication in the doctor's office, such as making a list of questions in advance, rephrasing important information the doctor provides to confirm that they understand, and asking the doctor to explain in lay terms. The types of questions that might be asked were brainstormed. Role-play scenarios with each participant playing the patient role were used to allow participants to practice the communication techniques.

In Module 8, the focus was on both medications in general and those for HIV treatment. The rationale and importance of medical adherence, drug resistance, barriers to adherence, and strategies to surmount the barriers were discussed. The latter included writing down the prescription schedule and their daily activities to identify areas of potential conflict and to develop strategies to resolve the conflict. The take-home assignment was to develop independently a strategy to help people follow their medication schedule that the participants would share with the group in the next session.

### **Session 5: Exercise and Nutrition**

Session 5, a group session, included Module 9 "Exercise and Your Health" and Module 10 "Nutrition and Your Health." In Module 9, participants reintroduced themselves, reviewed the group guidelines, and then reviewed the take-home assignment. The "Benefits of Exercise" activity highlighted participants' positive outcome expectancies regarding exercising and reviewed ways to make exercise a part of their daily lives. A forced-choice activity was used to identify positive and negative attitudes about exercise, to strengthen positive attitudes, and to weaken negative attitudes. In another activity, the participants viewed an exercise video, engaged in an aerobic exercise routine with feedback from the facilitators on how to exercise properly and effectively, and learned to monitor the effects of exercise on the heart by taking their pulse before and after exercising.

In Module 10, participants reviewed their nutritional habits, how nutrition relates to health, and the importance of safe food storage and preparation. They prepared and ate a smoothie as

an example of how to incorporate easily a healthful snack into their daily diet. Participants played the entertaining game "Nutrition BINGO," which reinforced the diet information covered. The take-home assignment was to review their exercise plan and to perform the exercises listed.

#### **Session 6: Prevention and Screening**

Session 6, a group session, included Module 11 "Smoking and Alcohol and Your Health" and Module 12 "Early Detection and Screening." In Module 11, participants reviewed the effects of smoking on health. Emphasis was on positive outcome expectancies regarding quitting smoking and on self-efficacy to overcome pressures to smoke. Participants reviewed the health effects of alcohol abuse and ways of overcoming pressures to abuse alcohol. The participants formed two teams and competed in a lively game, "Wheel of Misfortune," which reviewed information regarding alcohol, smoking, cancer, and hepatitis C.

In Module 12, participants reviewed information about early detection and screening, considered barriers that prevented people from being screened, and suggested solutions to overcome each of the barriers. The participants then separated into single-gender groups led by the same-gender facilitator. The women reviewed breast cancer information and practiced BSE on an anatomical model, attempting to find the lumps in the model while receiving guidance and corrective feedback. They reviewed barriers to performing monthly BSE and ways of overcoming those barriers. The men reviewed prostate cancer and prostate cancer screening. They watched the video "Prostate Cancer" and then discussed risk factors, symptoms, benefits of and barriers to screening, and ways to overcome such barriers. A takehome assignment was designed to give participants an opportunity to practice some of the behaviors that were recommended in the intervention. For women, it concerned behaviors related to breast cancer screening and for men, prostate cancer screening.

#### **Session 7: Medical Adherence**

Session 7, the last group session, included Module 13 "Adhering to Your Medication Schedule" and Module 14 "Communicating with Your Health Care Provider." In Module 13, the group participated in the "HIV Medications Questions and Answers" activity, which provided a review of information about medications that people living with HIV often presented. By turn, participants were asked questions. If the participant did not know the answer, someone else in the group was asked to answer. Afterward, participants received a handout with all the questions and answers. In the "HIV Medication Adherence Pros and Cons" activity, the group brainstormed positive and negative consequences of HIV medication adherence. The activity did not require participants to reveal their HIV status, and by design, there were more "pros" than "cons." After all the pros and cons had been listed, the facilitators asked the participants for ways to overcome the cons. The group viewed and processed the video "Taking Control: Adherence and HIV/AIDS Medication."

In Module 14, the group reviewed ways to improve communication with health care providers, particularly physicians and pharmacists, and the importance of advising these specialists if they have been unable to follow their advice. Men and women formed teams and competed in "Health Basketball," in which teams earned points for correctly answering questions about the information covered in the program. The take-home assignment was to write a three-sentence plan for adhering to their medication and treatment regimens or healthful behaviors like exercise and the 5-A-Day diet and to describe their importance. The "Session Closing Ceremony" activity brought closure to the group portion of the program. It included a series of brief activities designed to encourage participants to reflect and share how the information they learned may change their lives in a healthful manner and to empower them to put that knowledge into practice.

#### Session 8: Review and Wrap-Up

Session 8, an individual couple session, included Module 15 "Review of Topics" and Module 16 "Wrap-Up and Review." In Module 15, participants reviewed the importance of prevention and control of various health problems, benefits of a healthful diet and regular exercise, and discussed barriers and strategies for overcoming the barriers to each. "Fast Food Facts," a handout, provided nutritional information on specific fast foods.

In Module 16, the participants reviewed and discussed early detection, benefits, barriers, and strategies for overcoming them, and how it personally related to them. They reviewed and discussed the risks of smoking and alcohol abuse, barriers and strategies for overcoming barriers to cessation of smoking and alcohol abuse. They reviewed and discussed medical adherence, benefits, barriers, and solutions to barriers. Participants competed in a lively review game, "Health Jeopardy," in which they earned points for correctly answering questions. In the "Letter to Self" activity, each participant wrote a letter to himself or herself promising to make more healthful choices like exercising and eating right, not smoking, limiting alcohol consumption, and adhering to his or her health care provider's advice and medication regimen. They put their letter in an envelope, addressed it to themselves, and sealed it. The letter was mailed to them one month later as a reminder of their promise and a prompt to work toward making more healthful choices. Participants received a Certificate of Completion as part of the "Final Session Closing."

# **Quality Control and Quality Assurance**

We employed detailed and standardized intervention manuals, careful selection of experienced facilitators, certification of facilitators, and ongoing monitoring of their adherence to the intervention protocol to ensure the quality control and quality assurance of the implementation of the intervention. We selected facilitators who had expertise in the area of cancer and heart disease prevention, and at least a master's degree in a human services-related field or two years experience working with couples or conducting health-related interventions with urban populations. The facilitators received pre-training preparation at their clinical site and then a four-day central training, including workshops on research and intervention delivery issues and delivery of mock sessions with trainers and peers from all four sites. During the training, the facilitators received feedback from each other and the trainers and fashioned common responses to issues that may arise during the intervention sessions. Upon successful completion of the training, the facilitators were certified.

In developing and implementing a health promotion comparison intervention we were concerned about the possibility that the intervention might be contaminated with information on HIV/STD sexual risk reduction and thereby reduce the ability to make a clean test of the efficacy of the HIV/STD intervention. Accordingly, the training of health-promotion and risk-reduction intervention facilitators was held at separate times to avoid contamination across the two conditions. In addition, throughout the training we emphasized the importance of fidelity and consistency of implementation across sites to the integrity of the trial. Moreover, the curriculum manual contained several reminders to the health facilitators to maintain the focus on the health topics covered in the curriculum and to avoid HIV/STD sexual risk reduction. The facilitators were told that if participants brought up safer sex issues, they should briefly acknowledge them and then proceed with the curriculum material.

During intervention implementation, the facilitators received supervision on the conduct of the intervention, handling difficult issues that arise, and ensuring that the intervention was conducted according to the protocol. Data from process measures were used during supervision to aid in providing information about the session to the supervisors. The supervisors also utilized the audio recordings of sessions to enable them to monitor the facilitators' performance

immediately and directly. More details about quality control and quality assurance are included in the article on methods.

## Comment

This intervention provides an excellent comparison condition for the Eban HIV/STD Risk Reduction Intervention in this multisite randomized controlled trial. The Eban Health Promotion Intervention controls for Hawthorne effects, thereby reducing the likelihood that the effects of the Eban HIV/STD Risk Reduction Intervention can be attributed to its non-critical features, including special attention and group interaction. For ethical and methodological reasons, it was important that comparison intervention participants have as valuable an experience as that of the HIV/STD intervention participants (Cook & Campbell, 1979). The ethical problem, of course, concerns withholding a beneficial treatment from persons who might need it. In methodological terms, if participants in the comparison condition did not perceive their experience as valuable, they might not return for follow-up, creating differential attrition.

The intervention focused on health issues affecting African Americans. Led by male and female co-facilitators, it involved similar sessions and activities as those in the Eban HIV/STD Risk Reduction Intervention, only the focus was on different health issues and different behaviors. This intervention was designed to be just as valuable and enjoyable as the Eban HIV/STD Risk Reduction Intervention. Thus, all participants in this multisite randomized controlled trial received something of value. Participants in the Eban Health Promotion Intervention received an intervention that addressed leading causes of death among African Americans. It addressed theory-based mediators of behaviors related to the risk of these diseases, early detection of the diseases, and control of the diseases. Therefore, Project Eban not only tests the efficacy of an HIV/STD risk reduction intervention for African American serodiscordant couples, but also tests the efficacy of an intervention that addresses many of the other important health problems affecting this high-risk population.

African Americans continue to suffer health disparities that decrease life expectancy, quality of life, and productivity as well as increase disability and dependency (CDC, 2005a). Although the top three causes and seven of the 10 leading causes of death in the United States are the same for African Americans and whites, the risk factors and incidence, morbidity, and mortality rates for these diseases and injuries often are greater among African Americans than among Caucasians. For instance, African Americans have substantially more years of potential life lost to stroke and diabetes than do whites. Cancer is the second leading cause of death for both African Americans and Caucasians, but the age-adjusted incidence is substantially higher among African Americans than among whites for certain cancers, including cancer of the colon, stomach, and prostate.

To be sure, African Americans who are in HIV-serodiscordant couples are not immune to the health disparities that affect other African Americans. Chronic diseases also decrease their life expectancy, quality of life, and productivity and increase disability and dependency. In this research, we have learned that African Americans in serodiscordant couples recognize these health problems and are interested in opportunities to address health issues beyond HIV/AIDS and to talk with other adults about strategies to improve their health. The present study teaches that it is possible to engage African American HIV-serodiscordant couples in an eight-session intervention targeting a range of relevant chronic diseases and healthful behaviors.

Eliminating the disparities affecting African Americans will require equitable access to quality health care, community support, and culturally appropriate public health initiatives, including those like the health promotion intervention for African American serodiscordant couples

described in this article. We are optimistic that the Eban Health Promotion Intervention, which is interactive and tailored to African Americans and teaches participants to incorporate health-promotion strategies into their daily lives, will empower the participants to engage in healthful behaviors and thereby reduce the risks for chronic diseases that are having a devastating impact on the African American community.

#### References

- American Cancer Society. Cancer facts & figures, 2003. Atlanta, GA: American Cancer Society; 2003.
- American Heart Association. Heart disease and stroke statistics—2006 update. Circulation 2006;113:e85–e151. [PubMed: 16407573]
- Bandura A. Self-efficacy mechanism in human agency. American Psychologist 1982;37:122-147.
- Bandura, A. Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall; 1986.
- Bone LR, Hill MN, Stallings R, Gelber AC, Barker A, Baylor I, Harris EC, Zeger SL, Felix-Aaron KL, Clark JM, Levine DM. Community health survey in an urban African-American neighborhood: distribution and correlates of elevated blood pressure. Ethnicity and Disease 2000;10:87–95. [PubMed: 10764134]
- Brancati FL, Kao WHL, Folsom AR, Watson RL, Szklo M. Incident Type 2 diabetes mellitus in African American and White adults. The Atherosclerosis Risk in Communities Study. Journal of the American Medical Association 2000;283(17):2253–2259. [PubMed: 10807384]
- Cook, T.; Campbell, D. Quasi-experimentation: Design and analysis for field settings. Chicago: 1979.
- Centers for Disease Control and Prevention (CDC). Health disparities experienced by Black or African Americans—United States. MMWR 2005a;54(01):1–3.
- Centers for Disease Control and Prevention (CDC). Trends in leisure-time physical inactivity by age, sex, and race/ethnicity—United States. MMWR 2005b;54(39):991–994.
- Clark LT, Ferdinand KC, Flack JM, Gavin JR 3rd, Hall WD, Kumanyika SK, Reed JW, Saunders E, Valantine HA, Watson K, Wenger N, Wright JT. Coronary heart disease in African Americans. Heart Disease 2001;3:97–108. [PubMed: 11975778]
- Crespo, CJ.; Smit, E.; Anderson, RE.; Carter-Pokras, O.; Ainsworth, BE. Race/ethnicity, social class and their relation to physical inactivity during leisure time: results from the third National Health and Nutrition Examination Survey. 2000. p. 1988-1994.
- Egede LE, Dagogo-Jack S. Epidemiology of Type 2 diabetes: Focus on ethnic minorities. Medical Clinics of North America 2005;89:949–975. [PubMed: 16129107]
- Ferdinand KC. Coronary artery disease in minority racial and ethnic groups in the United States. American Journal of Cardiology 2006;97:12A–19A.
- Jemal A, Siegel R, Ward E, Murray T, Xu J, Smigal C, Thun MJ. Cancer statistics, 2006. CA: A Cancer Journal for Clinicians 2006;56:106–130. [PubMed: 16514137]
- Koren MJ, Mensah GA, Blake J, Laragh JH, Devereux RB. Comparison of left ventricular mass and geometry in black and white patients with essential hypertension. American Journal of Hypertension 1993;6:815–823. [PubMed: 8267936]
- Kumanyika, SK.; Odoms, A. Nutrition. In: Braithwaite, RL.; Taylor, SE., editors. Health issues in the Black community. San Francisco: Jossey-Bass Publishers; 2001. p. 419-447.
- Marshall MC Jr. Diabetes in African Americans. Postgraduate Journal 2005;81:734-740.
- National Center for Chronic Disease Prevention and Health Promotion NCCDPHP). National Diabetes Fact Sheet. National Estimates on Diabetes. 2000. Viewed at www.cdc.gov/diabetes/pubs/estimates.htm#prev4 September 20, 2006.
- National Center for Health Statistics (NCHS). Health, United States, 2002. Table 30.
- Ogden CL, Carroll MD, Curtin LR, McDowell MA, Tabak CJM, Flegal KM. Prevalence of overweight and obesity in the United States, 1999–2004. Journal of American Medical Association 2006;295:1549–1555.
- Smedley, BD.; Stith, AY.; Nelson, AR., editors. Unequal treatment: Confronting racial and ethnic disparities in health care. Washington, DC: The Academies Press; 2003.

Yan LL, Liu K, Matthews KA, Ferguson TF, Kiefe C. Psychosocial factors and risk of hypertension. Journal of American Medical Association 2003;290:2138–2148.

#### Table 1

## Health Promotion Curriculum Outline

Session 1: Module 1 (C "Assessing One's Healt	ouples Group) "Getting to Know You" and Module 2 (Single-Gender Group) th"	
A. Welcome and Progra	am Overview	
B. Talking Circle		
C. Creating Group Guid	delines	
D. Brainstorming 1) He and 2) Health Concerns	ealth Problems That Affect the African-American Community Related to HIV	
E. Health Risk Assessn	nent	
F. Overview and Discu	ssion of Prevention, Screening, and Treatment/Adherence	
G. Personal Health Goa	al Setting	
H. Barriers to Attaining	g Goals and Ways of Surmounting those Barriers	
I. J. Talking Circle		
Session 2: Modules 3 ar	nd 4 (Couples Alone) "Tailoring Exercise and Nutrition for Prevention"	
	Nutrition and exercise as related to hypertension, heart disease, diabetes, and diarrhea/wasting	
	Food Pyramid	
	Cooking strategies, including food safety/preparation and water purification	
	Aerobic and strength-building exercise strategies	
Session 3: Modules 5 ar	nd 6 (Couples Alone): "Tailoring Prevention and Screening"	
	Breast Self Exams (Skill-building)	
	Testicular Self Exams (Skill-building)	
	Oral Hygiene (Personal Assessment and Skill-building)	
	Review of impact of cigarette smoking, alcohol, and drugs on health	
	Smoking (Personal Assessment and Discussion)	
	Alcohol (Personal Assessment and Discussion)	
	Drugs (Personal Assessment and Discussion)	
	Strategies For Reducing the Use of Cigarettes, Alcohol, and Drugs	
Session 4: Modules 7 ar	nd 8 (Couples Alone): "Tailoring Compliance/Adherence"	
Module 7 "Medical C	Compliance"	
	Barriers to Physician Care	
	Communication with Provider (physician, dentist, pharmacist)	
	Advocacy for Self Care	
	How To Be An Effective Patient: Getting Your Needs Met	
Module 8 "Medication Compliance"		
	Barriers to medication compliance and ways of overcoming those barriers	
	Access to Medication	
	Medication side effects	
	Mental health	
	Body Image	
	Complementary Health Behaviors	

	Nutrition and exercise as related to hypertension, heart disease, diabetes, and diarrhea/wasting	
	Food Pyramid	
	Cooking strategies, including food safety/preparation and water purification	
	Aerobic and strength-building exercise strategies	
Session 6: Module 1	1 (Couples Group) and Module 12 (Single-Gender Group) "Prevention and Screening"	
Module 11 (Couples Group) "Prevention"		
	Impact of cigarette smoking, alcohol, and drugs on health, including heart disease, certain cancers, liver disease, hepatitis C, and HIV	
	Oral Hygiene [introduced as a concept under smoking]	
	Strategies For Reducing the Use of Cigarettes, Alcohol, and Drugs	
Module 12 (Single-Gender Group) "Screening"		
	Pap smears/gynecological care as related to cancer and HIV	
	Prostate cancer screening	
	Breast Self Exams	
	Testicular Self Exams	
	Mammograms	
Session 7: Modules 13 and 14 (Couples Group): "Compliance/Adherence"		
Module 13 "Medical Compliance"		
	Barriers to Physician Care	
	Communication with Provider (physician, dentist, pharmacist)	
	Advocacy for Self Care	
	How To Be An Effective Patient: Getting Your Needs Met	
Module 14 "Medication Compliance"		
	Barriers to medication compliance and ways of overcoming those barriers	
	Access to Medication	
	Medication side effects	
	Mental health	
	Body Image	
	Complementary Health Behaviors	
Session 8: Modules 15 and 16 (Couples Alone) "Behavior Change Maintenance"		
	Review of Prevention	
	Review of Screening	
	Review of Adherence	
	Maintenance	
	Relapse Prevention	