CONNECT 2 (Couple-based HIV Risk Reduction)

Best Evidence – Risk Reduction

INTERVENTION DESCRIPTION

Target Population
- Drug-involved, HIV-negative concordant, high risk heterosexual couples

Goals of Intervention
- Reduce unprotected sex†
- Reduce STI incidence
- Reduce dyadic drug risk behaviors

Brief Description

Connect 2 is a couple-based HIV risk reduction intervention delivered to drug-involved HIV-negative concordant heterosexual couples. The intervention can be delivered in two formats: to the couple together or to the drug involved member of the couple individually. The intervention focuses on both sexual and drug risk reduction and addresses disclosure and identifying mutual drug-related sexual risks, couple communication, negotiation and problem solving skills, practice of technical condom use placement and syringe disinfection skills, enhancing motivation to protect each other, and mutual risk reduction goal setting.

Theoretical Basis
- Social Cognitive Theory
- Relationship-oriented ecological framework

Intervention Duration
- Seven weekly 2-hour sessions delivered over 7 weeks

Intervention Setting
- Not reported

Deliverer
- Single male/female facilitator

Delivery Methods
- Demonstration
- Goal setting/plan
- Homework
- Modeling/role play exercise
- Practice

INTERVENTION PACKAGE INFORMATION

An intervention package is not available at this time. Please contact **Nabila El-Bassel**, DSW, Columbia University School of Social Work, 1255 Amsterdam Avenue, New York, NY 10027.

Email: **ne5@columbia.edu** for details on intervention materials.

EVALUATION STUDY AND RESULTS

The original evaluation was conducted in New York, New York between November 2005 and September 2010.

Key Intervention Effects
- Reduced unprotected vaginal sex† with study partner
- Reduced unprotected vaginal sex† with all partners

Study Sample
The baseline study sample of 564 (282 couples) participants is characterized by the following:
- *50% black or African American, 28% Hispanic/Latino, 11% people of color, 11% white*
- *50% male, 50% female*
- *Mean age of 37 years*

Recruitment Settings
- Street outreach, homeless-shelters, soup kitchens, syringe-exchange programs, and word-of-mouth

Eligibility Criteria
Couples were eligible if they were 18 or older and at least one partner was 18-40; both tested HIV-negative using Oraquick and OraSure assays; both identified each other as their main, regular partner, boy/girl-friend, spouse, or lover; both reported that they have been together for at least 6 months and intended to remain together for at least one year; at least 1 partner reported using illicit drugs in the prior 90 days and was seeking or in drug treatment; and at least 1 partner reported having had unprotected sex† with the other in the prior 90 days. Additionally, at least 1 partner reported 1 or more of the following HIV criteria (1) sex with other partners in the prior 90 days; (2) injecting drugs in the prior 90 days; or (3) self-reported being diagnosed with an STI in the prior 90 days.

Assignment Method
Couples (n = 282; n = 564 men and women) were randomly assigned to 1 of 3 study arms: Couples Risk Reduction (n = 95 couples; n = 190 men and women), Individual Risk Reduction (n = 92 couples; n = 184 men and women) or Couple Wellness Promotion (n = 95 couples; n = 190 men and women).

Comparison Group
The Couple Wellness Promotion comparison was delivered over 7 weekly 2-hour sessions and focused on maintaining a healthy diet, promoting physical fitness in daily routines, promoting age-appropriate recommendations for screening for common diseases such as cancers, heart disease, diabetes, etc., improving access to health care series by identifying and addressing service barriers, and learning stress-reduction exercises.

Relevant Outcomes Measured and Follow-up Time
- Sexual risk behaviors (including number of vaginal and anal sex acts; number of unprotected vaginal and anal sex acts† with study partner and all other partners; consistent condom use during vaginal sex; and incidence of concurrent sexual partners) during the last 90 days were measured at 6 and 12 months post-intervention.
- Drug risk behaviors (including number of times injected and number of times syringes, cookers, cotton, or rinse water were shared with another user) during the last 90 days were measured at 6 and 12 months post-intervention.

- Chlamydia, gonorrhea, and trichomoniasis were measured over the 12 month follow-up period.

Participant Retention

- Couple Risk Reduction Intervention
  - 79% retained at 6 months
  - 74% retained at 12 months
- Couple Wellness Promotion comparison
  - 74% retained at 6 months
  - 77% retained at 12 months
- Individual Risk Reduction
  - 71% retained at 6 months
  - 75% retained at 12 months

Significant Findings

- At 6 months post-intervention, combined intervention participants reported significantly lower incidence rates of unprotected acts† of vaginal intercourse with their study partner (IRR = 0.70, 95% CI = 0.54,0.92, p <0.05), and with all partners (IRR = 0.69, 95% CI = 0.54,0.88, p <0.05) in the past 90 days than comparison participants.
- At 6 months post-intervention, combined intervention participants were significantly more likely to report consistent condom use during vaginal sex with their study partner (OR = 2.16, 95% CI = 1.29, 3.61, p <0.01) and with all partners (OR = 1.61, 95% CI = 1.01, 2.55, p <0.05) in the past 90 days than comparison participants.
- Combined intervention participants were also significantly less likely to report any unprotected anal sex† across all partners at 6 months post intervention (OR = 0.61, 95% CI = 0.40, 0.95, p <0.05).
- At 6 months post-intervention, couple-based intervention participants reported significantly lower incidence rates of unprotected acts† of vaginal intercourse with their study partner (IRR = 0.70, 95% CI = 0.51, 0.96, p <0.05), and with all partners (IRR = 0.74, 95% CI = 0.56, 0.98, p <0.05) in the past 90 days than participants in the individual-level intervention arm.
- At 12 months post-intervention, couple-based intervention participants reported significantly lower incidence rates of unprotected acts† of vaginal intercourse with their study partner (IRR = 0.59, 95% CI = 0.35, 0.99, p <0.05), and with all partners (IRR = 0.62, 95% CI = 0.39, 0.98, p <0.05) in the past 90 days than participants in the individual-level intervention arm.

Considerations

- The two interventions, when combined, did show efficacy; however, when comparing the two delivery methods, the couple-based intervention arm showed significantly better intervention effects than the individual-level intervention arm.
- Over the entire 12 month follow up period, combined intervention participants reported significantly lower incidence rates of unprotected acts† of vaginal intercourse with their study partner (IRR = 0.77, 95% CI = 0.65, 0.91, p <0.001), and with all partners (IRR = 0.77, 95% CI = 0.66, 0.90, p <0.001) in the past 90 days than comparison participants.*
- Over the entire 12 month follow up period, combined intervention were significantly more likely to report consistent condom use during vaginal sex with their study partner (OR = 2.07, 95% CI = 1.25, 3.61, p <0.01) in the past 90 days than comparison participants.
- Combined intervention participants were also significantly less likely to report any unprotected anal sex† across all partners over the entire 12 month follow up period (OR = 0.61, 95% CI = 0.39, 0.94, p <0.05).
- There were no significant intervention effects on injection drug use at any assessment but effects were promising at the p <0.1 level over the entire follow-up period.

- Couple-based intervention participants reported significantly lower incidence rates of unprotected acts† of vaginal intercourse with their study partner (IRR = 0.70, 95% CI = 0.53, 0.92, p <0.01) and with all partners (IRR = 0.69, 95% CI = 0.54, 0.88, p <0.01) in the past 90 days than participants in the individual-level intervention arm over the entire 12 month follow up period, which includes immediate post follow up.
- Couple-based intervention participants were significantly more likely to report consistent condom use during vaginal sex with their study partner in the past 90 days (IRR = 2.07, 95% CI = 1.25, 3.45, p <0.01) in the past 90 days than participants in the individual-level intervention arm over the entire 12 month follow up period, which includes immediate post follow up.
- Couple-based intervention participants were significantly less likely to report any unprotected anal sex† across all partners in the past 90 days (IRR = 0.61, 95% CI = 0.39, 0.94, p <0.05) than participants in the individual-level intervention arm over the entire 12 month follow-up period, which includes immediate-post follow up.
- Over the entire 12 month follow up period, couple-based intervention participants reported significantly lower incidence rates of unprotected acts† of vaginal intercourse with their study partner (IRR = 0.71, 95% CI = 0.51, 0.97, p <0.05), and with all partners (IRR = 0.74, 95% CI = 0.56, 0.99, p <0.05) in the past 90 days than participants in the individual-level intervention arm.

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

REFERENCES AND CONTACT INFORMATION

El-Bassel, N., Gilbert, L., Wu, E., Witte, S., Chang, M., Hill, J., & Remien, R. H. (2011) Couple-based HIV prevention for low-income drug users from New York City: A randomized controlled trial to reduce dual risks. *JAIDS Journal of Acquired Immune Deficiency Syndromes, 58*, 198-206.

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