

WORTH (WOMEN ON THE ROAD TO HEALTH)

Best Evidence – Risk Reduction

INTERVENTION DESCRIPTION

Target Population

- Drug-involved, high risk[‡] female offenders under community supervision

Goals of Intervention

- Increase proportion of condom protected sex
- Increase consistent condom use
- Reduce unprotected vaginal and anal sex[†]
- Reduce HIV and STD incidence

Brief Description

WORTH (Women on the Road to Health) is a group-level intervention for drug-involved female offenders under community supervision. The intervention, Traditional WORTH, is delivered in 4 weekly sessions to groups of 4 to 9 participants. Core components include HIV/STI knowledge, risk-reduction problem-solving and negotiation skills, condom use intentions, outcome expectancies, self-efficacy, partner abuse risk assessment, safety planning, social support, identification of service needs and linkage to services, and risk-reduction goal setting. A multimedia version of the intervention, Multimedia WORTH, was also developed. This version includes the same core components of Traditional WORTH translated into interactive computerized games, video enhancements, and interactive visual tools such as responding to video enactments, social support, and risk maps. The multimedia intervention was delivered through self-paced activities, interactive exercises, and knowledge-building games.

Theoretical Basis

- Social Cognitive Theory
- Empowerment Theory
- Scaffolding Learning Theory

Intervention Duration

- Four weekly 90-120 minute sessions delivered over one month

Intervention Setting

- Community research site

Deliverer

- Trained facilitators

Delivery Methods

- Computerized and web-connected case management service tool
- Games
- Goal setting
- Interactive group exercises
- Risk assessment
- Skills building
- Videos

INTERVENTION PACKAGE INFORMATION

An intervention package is not available at this time. Please contact **Nabila El-Bassel**, 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 City, NY between November 2009 and January 2012.

Key Intervention Effects

- Increased proportion of condom protected vaginal or anal sex
- Increased consistent condom use
- Reduced unprotected vaginal or anal sex[†]

Study Sample

The baseline study sample of 306 women is characterized by the following:

- 68% *black or African American, 15% Hispanic/Latino, 17% other*
- 100% *female*
- 58% *high school education or GED only*
- *Mean age of 41 years*

Recruitment Settings

Community courts and probation sites

Eligibility Criteria

Women were eligible if they were 18 and older and biologically female at birth; had been under community supervision in a community or criminal court, were on probation or parole, or were under drug treatment court supervision within 90 days; reported one or more incidents of illicit drug use within 6 months or reported binge drinking and attendance in an alcohol or drug treatment program within 6 months; had one or more incidents of unprotected vaginal or anal sex[†] within 90 days; and were HIV-positive or had at least one of the following HIV/STD risks within 6 months: had more than one sexual partner, injected drugs, were diagnosed with an STD or ever diagnosed with herpes or genital warts, or had unprotected vaginal or anal sex[†] with a partner with HIV or one of the following risk factors within 6 months: had more than one partner, injected drugs, or was diagnosed with an STD.

Assignment Method

Women (N = 306) were randomized to 1 of 3 study arms:

- Multimedia WORTH (n = 103)
- Traditional WORTH (n = 101)
- Wellness Promotion (n = 102)

Comparison Group

The Adolescent-Only General Health comparison consisted of a single 8-hour group session. The session was based on school health programs and focused on exercise, nutrition, sleep, smoking, and information about HIV.

Relevant Outcomes Measured and Follow-up Time

- Sex behaviors with primary partners, non-paying casual partners, and paying partners including number of condom protected and unprotected vaginal and anal sex[†] acts; having multiple male sex partners; and consistent condom use, defined as 100% condom protected vaginal and anal sex during the last 90 days were measured at 3, 6, and 12 months post-intervention.
- Biological outcomes (including HIV, gonorrhea, chlamydia, and trichomonas) were measured at 12 months post-intervention.

Participant Retention

- Multimedia WORTH Intervention
 - 88% retained at 3 months
 - 91% retained at 6 months
 - 88% retained at 12 months
- Traditional WORTH Intervention
 - 87% retained at 3 months
 - 89% retained at 6 months
 - 92% retained at 12 months
- Wellness Promotion Comparison
 - 86% retained at 3 months
 - 91% retained at 6 months
 - 92% retained at 12 months

Significant Findings***Combined WORTH (Multimedia and Traditional WORTH)***

- Over the entire 12-month follow-up period, combined intervention participants reported significantly fewer unprotected vaginal and anal sex[†] acts with a primary partner than comparison participants (Incident Rate Ratio [IRR] = 0.72, 95% CI = 0.57 – 0.90, p = 0.005). Significant intervention effects were also observed on unprotected vaginal and anal sex[†] acts with a primary partner at 3 months post-intervention (IRR = 0.62, 95% CI = 0.45 – 0.86, p = 0.004) and 6 months post-intervention (IRR = 0.70, 95% CI = 0.55 – 0.88, p = 0.002).
- Over the entire 12-month follow-up period, combined intervention participants reported significantly fewer unprotected vaginal and anal sex[†] acts with all partners than comparison participants (IRR = 0.78, 95% CI = 0.62 – 0.98, p = 0.029). Significant intervention effects were also observed on unprotected vaginal and anal sex[†] acts with all partners at 3 months post-intervention (IRR = 0.59, 95% CI = 0.41 – 0.85, p = 0.006) and 6 months post-intervention (IRR = 0.73, 95% CI = 0.58 – 0.93, p = 0.010).
- Over the entire 12-month follow-up period, combined intervention participants reported significantly more condom protected vaginal and anal sex acts with a primary partner than comparison participants (b = 0.10, 95% CI = 0.02 – 0.18, p = 0.011). Significant intervention effects were also observed on the proportion of condom protected vaginal and anal sex acts with a primary partner at 3 months post-intervention (b = 0.14, 95% CI = 0.04 – 0.24, p = 0.005) and 6 months post-intervention (b = 0.11, 95% CI = 0.03 – 0.19, p = 0.007).
- Over the entire 12-month follow-up period, combined intervention participants reported significantly more condom protected vaginal and anal sex acts with all partners than comparison participants (b = 0.09, 95% CI = 0.01 – 0.17, p = 0.028). Significant intervention effects were also observed on the proportion of condom protected vaginal and anal sex acts with all partners at 3 months post-intervention (b = 0.14, 95% CI = 0.05 – 0.24, p = 0.003) and 6 months post-intervention (b = 0.10, 95% CI = 0.02 – 0.18, p = 0.012).

- Combined intervention participants were significantly more likely than comparison participants to report consistent condom use during vaginal and anal sex with a primary partner over the entire 12-month follow-up period (OR = 2.36, 95% CI = 1.28 – 4.37, $p = 0.006$). Significant intervention effects were also observed for consistent condom use during vaginal or anal sex with a primary partner at 3 months post-intervention (OR = 3.42, 95% CI = 1.61 – 7.27, $p = 0.001$) and 6 months post-intervention (OR = 2.61, 95% CI = 1.38 – 4.95, $p = 0.003$).
- Combined intervention participants were significantly more likely than comparison participants to report consistent condom use during vaginal and anal sex with all partners over at 3 months post-intervention (OR = 2.89, 95% CI = 1.39 – 6.04, $p = 0.005$) and 6 months post-intervention (OR = 1.94, 95% CI = 1.05 – 3.60, $p = 0.035$).

Multimedia WORTH

- Over the entire 12-month follow-up period, Multimedia WORTH intervention participants reported significantly fewer unprotected vaginal and anal sex[†] acts with a primary partner than comparison participants (IRR = 0.72, 95% CI = 0.55 – 0.93, $p < 0.05$).
- Over the entire 12-month follow-up period, Multimedia WORTH intervention participants reported significantly more condom protected vaginal and anal sex acts with a primary partner than comparison participants ($b = 0.11$, 95% CI = 0.02 – 0.20, $p < 0.05$).
- Multimedia WORTH intervention participants were significantly more likely than comparison participants to report consistent condom use during vaginal and anal sex with a primary partner over the entire 12-month follow-up period (OR = 2.38, 95% CI = 1.16 – 4.87, $p < 0.05$).

Traditional WORTH

- Over the entire 12-month follow-up period, Traditional WORTH intervention participants reported significantly fewer unprotected vaginal and anal sex[†] acts with a primary partner than comparison participants (IRR = 0.72, 95% CI = 0.55 – 0.95, $p < 0.05$).
- Over the entire 12-month follow-up period, Traditional WORTH intervention participants reported significantly more condom protected vaginal and anal sex acts with a primary partner than comparison participants ($b = 0.10$, 95% CI = 0.01 – 0.19, $p < 0.05$).
- Traditional WORTH participants were significantly more likely than comparison participants to report consistent condom use during vaginal and anal sex with a primary partner over the entire 12-month follow-up period (OR = 2.34, 95% CI = 1.16 – 4.75, $p < 0.05$).

Considerations

- Both Multimedia WORTH and Traditional WORTH interventions are highlighted here because the analyses combined both intervention groups when compared to the comparison group and there were no significant differences in sexual behavior outcomes between the two intervention groups.
- There were no significant intervention effects at 12 months post intervention for HIV and STD incidence. Additionally, there were no significant intervention effects at any assessment for multiple male sex partners.

[‡]High risk defined as having unprotected vaginal or anal sex within 90 days; being HIV-positive; having multiple sex partners; injecting drugs; diagnosed with an STD or ever diagnosed with herpes or genital warts; or having unprotected vaginal or anal sex with a high risk partner.

[†]Unprotected vaginal or anal sex measured as sex without a condom.

REFERENCES AND CONTACT INFORMATION

El-Bassel, N., Gilbert, L., Goddard-Eckrich, D., Chang, M., Wu, E., Hunt, T., . . . Witte, S. (2014). [Efficacy of a group-based multimedia HIV prevention intervention for drug-involved women under community supervision: Project WORTH](#). *PLoS ONE*, 9, e111528.1-e111528.9.

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