

Systematic Reviews of HIV Behavioral Prevention Research in U.S. Minority Populations

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BACKGROUND

The need for evidence-based health care

- Physicians, researchers, public health practitioners, and patients are deluged with unmanageable amounts of information about the best approaches to prevention, treatment and health care delivery.
- To address the health information overload, systematic reviews have been developed to synthesize the vast number of studies and resulting data.
- The Cochrane Collaboration is an international network of health care professionals and consumers who prepare, maintain, and disseminate up-to-date evidence-based systematic reviews of health care interventions.

Recent studies have shown substantial increase in HIV infections in communities of color

- The Surgeon General's Leadership Campaign on AIDS is working with the Cochrane Collaboration's HIV/AIDS Group to systematically review studies of effective HIV prevention interventions for U.S. communities of color.
- The reviews focus on four risk groups among African Americans, Latinos/Hispanics, Asian Americans and Pacific Islanders, and American Indians and Alaskan Natives: men who have sex with men/gay men, heterosexuals, youth/adolescents, and injection drug users.

METHODS

- We conducted comprehensive and systematic searches for intervention studies, both published and unpublished via electronic databases (e.g. AIDSLINE, MEDLINE).
- We contacted researchers regarding ongoing relevant research.
- We categorized identified studies in terms of the targeted population, components of the intervention, demographics of the participants, research design, methodological quality, and study outcomes.
- Our inclusion criteria required that studies be randomized clinical trials or controlled clinical trials, and that data must be able to be interpreted for ethnic groups separately.

RESULTS

We identified a total of 138 potentially relevant studies with ethnic minority participants.

Studies that met our inclusion criteria

Ethnic group	Sample	Number	Risk Group
African-American	100%	22	MSM (1) IDU (2) Heterosexuals (12) Adolescents (7)
	Separate analyses for African American participants	14	IDU (3) Heterosexuals (5) Adolescents (6)
	Studies with >80% African American participants	17	IDU (7) Heterosexuals (9) Adolescents (1)
Latino (including Puerto Rican)	100%	6	IDU (2) Heterosexuals (3) Adolescents (1)
	Separate analyses for Latino participants	9	IDU (2) Heterosexuals (2) Adolescents (5)
Asian-American/ Pacific Islander	100%	1	MSM (1)
American Indian/ Alaskan Native		0	

Examples of results from included studies:

Asian/Pacific Islander

Ethnic Group	Risk Group	N	Characteristics of most successful and highest quality interventions	Examples of results of most successful and highest quality interventions
Asian American/ Pacific Islander	Men who have sex with men/ gay men	1	<ul style="list-style-type: none"> Information Skills training Cultural component (e.g. self-identity with being homosexual man of color) Eroticizing condoms 	<ul style="list-style-type: none"> Reductions in # of sexual partners by 46% (Choi et al., 1996) Chinese and Filipino men reduced unprotected anal intercourse by more than half (OR=.41)(Choi et al., 1996)

African American

Ethnic Group	Risk Group	N	Characteristics of most successful and highest quality interventions	Examples of results of most successful and highest quality interventions
African Americans	Men who have sex with men/ Gay men	1	<ul style="list-style-type: none"> Information Skills training Cultural component (e.g. self-identity with being African American homosexual men) 	<ul style="list-style-type: none"> 50% decrease in unprotected anal intercourse at 12-month follow up with persistence at 18-month follow up (Peterson et al., 1996)
African Americans	Injection drug users	12	<ul style="list-style-type: none"> Information Risk reduction materials Skills training Peer education 	<ul style="list-style-type: none"> Significantly decreased injection of cocaine/heroin and decreased needle sharing for HIV- persons at 18-month follow up (Latkin et al., 1996) Drug behavior more amenable to change than sexual behavior (several studies)
African Americans	Hetero- sexuals	26	<ul style="list-style-type: none"> Information Skills Training Peer Education Sensitivity to issues of gender, and culture 	<p><i>For women:</i></p> <ul style="list-style-type: none"> Increased condom use (several studies) Improved communication regarding condom use (DiClemente et al., 1995) <p><i>For men:</i></p> <ul style="list-style-type: none"> Increased condom use (several studies) Significant reduction in STD reinfection (several studies)
African Americans	Youth/ adolescents	14	<ul style="list-style-type: none"> Information Skills training Modeling/ role playing Peer education 	<ul style="list-style-type: none"> Improved condom use (both frequency and consistency) (Jemmott et al., 1998) Delayed onset of sexual activity (St. Lawrence, et al, 1995)

Latino

Ethnic Group	Risk Group	N	Characteristics of most successful and highest quality interventions	Examples of results of most successful and highest quality interventions
Latino/ Puerto Rican	Injection drug users	4	<ul style="list-style-type: none"> Information Risk reduction materials Skills training Peer education Referrals 	<ul style="list-style-type: none"> Discontinuation of drug injection (Colon et al., 1993) Improvement in protective acts (e.g., bleaching needles, use of condoms) (Colon, et al., 1993)
Latino	Hetero- sexuals	5	<ul style="list-style-type: none"> Information Skills training Culturally and gender appropriate strategies Skills training Risk reduction materials 	<p><i>For women:</i></p> <ul style="list-style-type: none"> Increased condom use at 3-month follow-up (OR= 2.9) (Raj et al., unpublished manuscript) Increased safer sex negotiation at 3-month follow-up (OR= 4.0) (Raj et al., unpublished manuscript)
Latino	Youth/ adolescents	6	<ul style="list-style-type: none"> Information Skills training Modeling/ role playing Peer education 	<ul style="list-style-type: none"> Social skills training improved assertiveness for condom negotiation (Hovell et al., 1998) Did not increase rates of sexual activity (Sellers et al., 1994)

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DISCUSSION

- Many interventions had positive and significant impacts on risk behaviors associated with transmission of HIV infection.
- Most successful interventions:
 - Were grounded in theory.
 - Provided the participants with skills training.
 - Were sensitive to issues of culture, gender and language.
 - Were conducted over multiple sessions and/or longer periods of time.
- There were only two intervention trials involving MSM/gay men of color.
- There was a paucity of interventions involving Latinos, Asian Americans/Pacific Islanders and Native Americans/Alaska Natives.
- More studies could have been included if investigators had conducted separate analyses by ethnic group of participants.

RECOMMENDATIONS

Recommendations for interventions:

- Interventions should be theory-based and provide participants with skills training (e.g. communication skills, needle sterilization skills).
- Interventions should be sensitive to gender, culture and language.

Recommendations for researchers:

- Future research with MSM/gay men of color is an urgent priority.
- Future research with Asian Americans and Pacific Islanders and with Native Americans and Alaska Natives is an urgent priority.
- Where feasible, researchers should conduct separate analyses of participants of color.
- Adequate sample sizes should be obtained in order to increase the chances of discerning the effects of the intervention.
- Studies should attempt to measure behavior change over long periods of time to measure the durability of the intervention effects.
- Ideally, behavioral prevention interventions should attempt to demonstrate connections to biological outcomes, when feasible (e.g., sexually transmitted disease re-infection and/or HIV seroconversion).