Journal of The Gujarat Research Society
ISSN: 0374-8588
Volume 21 Issue 11, October 2019

A Review of HIV Interventions for At-Risk Women

Dr. Shiva Sharma, Dr. Snighdha Tiwari
Shobhit Institute of Engineering and Technology (Deemed to be University), Meerut
Email Id- shiva@shobhituniversity.ac.in, snigdha.tiwari@shobhituniversity.ac.in

ABSTRACT: ***From the start of the AIDS pandemic through March 1996, this study examines published studies on primary prevention of HIV transmission by women. All of the interventions reviewed were conducted in the United States, Canada, or Puerto Rico, as well as the reports described a psychological, behavioral, as well as educational component specifically to address sexual risk reduction. This papers targeting women were found via manual and machine searches, each with a female-specific analysis of intervention effects. Sixteen of the 47 studies that fulfilled more stringent methodological reporting requirements were evaluated independently. Overall, the results show that HIV prevention programs may successfully reduce risky sexual activity among at-risk women. The efficacy of programs varied depending on the kind of intervention, the length of the sessions, and whether the research included just women or both men and women. The most effective HIV prevention programs targeted women explicitly, emphasized interpersonal and negotiating skills, and included numerous, long-term interactions. Evidence also suggests that community-based treatments have potential. A methodological criticism, research gaps, and suggestions for future intervention research with women are included in this study.***

KEYWORDS: HIV Prevention, Heterosexual Transmission, Women, Sexual Behavior.

1. INTRODUCTION

1.1. HIV and AIDS Epidemiology:

In the 16 years after it was first identified in the United States, acquired autoimmune disease syndrome (AIDS) has grown into one of the century's most severe public health concerns. Despite the fact that the human immunodeficiency virus (HIV), whose causes AIDS, has well-documented and widely accepted transmission pathways, the prevalence of AIDS continues to increase in different populations. By the end of 1995, the total number of AIDS cases had surpassed 500,000. AIDS has overtaken accidental injury as the top cause of mortality among all Americans aged 15 to 64 as of January 1995. Women, who are the fastest increasing category of AIDS patients, are experiencing especially worrisome rates of AIDS. Since 1983, the percentage of AIDS diagnoses among women aged 13 and above has continuously risen. Women accounted for 19% of all new AIDS infections in 1995. In 1995, the median age for women diagnosed with AIDS was 35 years old, with women aged 20 to 44 years old accounting for 81 percent of all female cases diagnosed.

1.2. Identifying Women Are "At-Risk":

Despite the rapidly increasing number of AIDS diagnoses among women, it is difficult to define "at-risk" women. Traditional "high-risk" populations, such as intravenous drug users (IDUs) and commercial sex workers, were targeted for early HIV prevention messaging. Crack/cocaine-using women are another group at risk for HIV, since they have a high incidence of sexually transmitted diseases (STDs), have frequent intercourse with many partners in the absence of condoms, and often trade sex for money or drugs. "Women at greatest risk for homosexually acquired HIV infection include someone whose sexual partners have high risk behaviors (e.g., IDU), adolescents

or young adults with numerous sex partners, and those with sexually transmitted illnesses," according to the CDC[1].

This definition, however, may not be sufficient for women. For women who are serially monogamous and do not consider themselves to have "many relationships," the CDC's "multiple-partner" criteria may be deceptive. It also ignores the fact that women living in high-seroprevalence regions may be at risk of heterosexual Transmitting hiv from a single, long-term sexual partner as a consequence of that partner's previous or present hazardous sexual and/or drug use behavior. Condom usage is minimal, even when the pool of partners is at high risk, particularly within a primary partnership. High rates of unsafe sex in the general community, even among individuals who satisfy the CDC criteria, emphasize this. Only 17 percent of people with many partners, 13 percent of those with hazardous sex partners, and 11 percent of untested blood transfusion recipients always use condoms, according to a new nationwide probability sex study of adults. As a result, we propose a broader definition of "atrisk" women that includes crack/cocaine and intravenous drug users; IDUs' sexual partners; hemophiliacs; men who have sex with men or with other concurrent partners; commercial sex laborers; those with STDs and/or multiple concurrent partners; and heterosexually active women living in high HIV-seroprevalence geographic regions: This enlarged definition includes women who meet the CDC's criteria for being at risk, as well as those who reside in or near AIDS epicenters and are more likely to have sex with an HIV-positive partner[2].

1.3.Overview Of Intervention:

1.3.1. Intervention Levels:

In the absence of a cure or vaccine, the primary strategy for reducing the spread of new HIV infections is prevention. Two degrees of intervention activity have been identified in medical and public health practice. Primary HIV prevention is altering the behaviors that put a person at risk of contracting HIV. Efforts to decrease the risk of HIV transmission via sexual or needle-risk behaviors are included in this category. The foundation for creating a range of treatments is scientific and commonsense understanding about the causes, mediators, and reinforcers of risk behaviors. For example, interventions may aim to alter behavior by improving information about HIV transmission and preventive methods, giving skills to negotiate safer sex, or changing attitudes about the social informativeness and acceptability of risk-avoidance behaviors like condom usage. The goal of secondary prophylaxis is to reduce the negative effects of HIV seropositivity and preserve quality of life throughout the disease's course[3].

1.3.2. Intervention Types:

Interpersonal, institutional, communal, and mass media interventions are all types of interventions (Ehrhardt et al., 1990). Individuals are treated one-on-one or in small numbers in interpersonal treatments with the aim of altering their risk behavior. We split interpersonal interventions into four categories in this review: information-only, condom skills, relationship development, HIV counseling and testing, as well as individual risk counseling. Information-only treatments offer information regarding HIV transmission and preventive methods but do not include any behavioral practice of the skills required to reduce risk. Condom/ spermicide skills-focused interventions involve direct practice of proper condom use using proxy phalluses or practice of spermicide use as well female genital models, in addition to providing information[4].

Institutional interventions are aimed at influencing HIV prevention policy. Safer sex counseling training for STD clinic staff, mandatory HIV education for public school children, and the regular distribution of free condoms or HIV testing referrals to clinic attendees are all examples of interventions.

Community interventions are designed for those who may not be able or motivated to engage in more formal tailored programs (such as commercial sex workers or street IDUs). These treatments aim to modify behavior by changing social norms for HIV risk reduction across a community by reaching a critical mass of people with information, motivation, change instruments (such as free condoms), or skills training. Needle exchange and condom distribution programs, one-on-one street outreach, and the distribution of flyers or other educational materials at strategic places are all examples of community intervention initiatives. Key informants or "change agents" may provide the intervention messages[5].

Print, radio, and television HIV prevention programs targeted at local, regional, or nationwide mass audiences are examples of mass media interventions. These interventions, too, aim to alter behavior by disseminating knowledge and changing societal norms about the acceptability of HIV risk reduction measures. Subway ads encouraging condom usage, television public service commercials personalizing the danger of HIV, and radio advertising giving information about HIV counseling and testing sites are just a few examples[6].

1.3.3. Result of the Intervention:

Primary prevention research has focused on a range of hazardous needle-sharing and/or sexual activities that put individuals at risk for HIV infection. Intervention attempts may aim to persuade women to always use clean needles or to abstain from using intravenous narcotics entirely. Sexual risk behaviors may also be addressed via interventions. Total abstinence from partner intercourse is the safest way to reduce sexual risk. Stopping all penetrative sexual practices (oral, vaginal, or anal intercourse) and replacing them with "outercourse," which would include genital caressing and sensuous massage, would be an alternative approach for risk reduction. Although abstinence and outercourse may substantially reduce, if not eliminate, HIV transmission, these results may be impractical, unappealing, and undesirable. Adult women are unlikely to choose lifelong celibacy or outercourse as a desired choice. Penetrative intercourse is a desirable part of both women's and men's lives for a number of reasons, including reproduction, closeness within relationships, and sexual pleasure[7].

1.4.Overview of Condom/Spermicide Skills Interventions

Two single-session studies (one with a follow-up report) looked at the efficacy of short treatments such as condom and/or spermicide skills training (Table IV). Because there is a scarcity of research, it is impossible to draw strong judgments about the efficacy of this intervention. One research fulfilled the requirements for methodological reporting. IDUs and their Sexual Partners, both men and women, have been studied. A single-session group condom skills intervention was compared to group plus (optional) HIV-antibody counseling and testing and a no-treatment control among IDUs receiving or seeking treatment in an investigation that fulfilled reporting requirements and produced repeated follow-up reports. At the 4-month and 18-month follow-ups, the percentage of women reporting numerous partners decreased in all groups, including the no-

treatment control. The findings suggest that the decrease in partners was a cohort-wide shift, perhaps influenced by detox therapy[8].

1.5.Problems with the Design:

Interventions come in a variety of shapes and sizes. Below are the advantages and disadvantages of some of the most popular study strategies. The sole behavioral evaluation comes after the intervention in a posttest-only approach. There is no kind of preintervention (baseline) evaluation. Posttest-only designs are the most ineffective kind of intervention design, since they do not allow for a thorough assessment of the intervention's effects. Because there is no baseline point of comparison, it is difficult to assess change or, if there is a comparison group, to determine whether both groups were similar in terms of risk behavior or other mediating factors prior to the intervention.

At various time points, independent cross-sectional models compare a target to a comparative group. These designs have their own set of limitations, since they are unable to account for variables that are unique to either the target or comparative sample (e.g., the introduction of a new HIV health clinic in one area or not the other). Finally, randomized controlled pretest posttest designs follow established experimental procedures. Participants are randomly allocated to either an intervention or a no-intervention group in this kind of study. Alternatively, participants may be randomly allocated to different kinds (e.g., video alone vs video with discussion) or doses (e.g., four versus eight sessions) of an intervention. Although differing attrition rates may confound interpretation, noncompleters could vary from completers on some important unmeasured variable, randomised controlled methods can assist to ensure group comparability. Using a "intention-to-treat" model for data analysis is one approach to solve this problem.

2. LITERATURE REVIEW

J. Weissman et al. studied about HIV/AIDS has been one of the world's leading causes of mortality among reproductive-age women, and drug misuse plays a significant role in HIV infection. To evaluate HIV risk-reduction intervention studies among reproductive-age women who misuse drugs, we performed a systematic review using the 2015 Preferred Criteria for Reporting Comprehensive Reviews and Meta-analysis methodology. We found 6,506 publications throughout our search and a total of 10 studies were included in our review after screening titles and abstracts, reviewing articles in more depth, and eliminating those deemed methodologically poor. In general, studies that included behavioral skills training and were based on logical model(s) were the most successful in reducing sex and drug risk behaviors. To identify the most effective HIV risk-reduction intervention for reproductive-age women who misuse drugs, further HIV risk-reduction intervention research with better methodological approaches is needed[9].

H. K. Knudsen and colleagues looked into Women who are engaged in the criminal justice system, especially those who have a history of drug use, are at a higher risk of contracting HIV, yet few HIV preventive programs have been specifically designed for imprisoned women. The Reducing Risky Relationships for HIV (RRR-HIV) intervention was designed and assessed in a multisite randomized clinical study using the Relational Model. Women with weekly drug use before to imprisonment (n = 444) were randomized to either (1) the RRR-HIV intervention, which consisted of an HIV instructional film, five group sessions, or one postrelease booster session, or (2) a

control condition, which consisted of the HIV educational video. The RRR-HIV intervention included both didactic and interactive material concerning seven "thinking misconceptions" about intimate relationships that may lead to hazardous sexual activity. Data was gathered by experienced interviewers while the ladies were still in jail and about 90 days after their release. Once the data was corrected for study location, a binomial regression (NBR) model of exposed sexual activities at the 90-day follow-up revealed that RRR-HIV participants reported less unprotected sexual behaviors than women in the control condition. Future research should look at the long-term effects of the RRR-HIV intervention on risk reduction. To see whether delivering this intervention by correctional personnel or peers, rather than research professionals, results in comparable decreases in unprotected sexual activities, further study is required[10].

T. Poteat et al. studied about Transgender women who work in the sex industry have a higher risk of contracting HIV than natal male or female sex workers throughout the world. There were only six studies of proof preventive treatments found, and none of them focused only on TSW. Based on data about HIV risks and therapies, we created a deterministic model. The model looks at HIV prevention methods in TSW in two different contexts to see which interventions are most likely to meet the UN target of a 50% decrease in HIV incidence in ten years. In both contexts, a combination of treatments that result in modest behavioral changes and limited coverage of biological therapies was promising, indicating that expanding preventive services in TSW might be very beneficial. Six country case studies highlight context-specific concerns that should guide the development and implementation of important interventions in a variety of contexts. We provide an overview of the data and knowledge gaps affecting the HIV pandemic in TSW, as well as a research agenda for improving HIV services and policy for this group[11].

3. DISCUSSION

Since the first two early assessments of HIV intervention targeting the sexual behavior of adult at-risk women were published in 1989, there has been significant improvement. It's good that interventions have reached out to a diverse set of women who aren't necessarily at risk. Based on the data reviewed, we believe that HIV prevention programs may be successful in altering sexual risk behavior in women, especially when they target women directly, concentrate on behavioral skills, and include numerous, long-term interactions. There is additional evidence that community-level interventions have the potential to reach and influence women who might otherwise be missed by more conventional study methods. Several broad findings are worth debating further. For starters, gender specificity seems to enhance the probability of discovering beneficial intervention effects, as previously stated. One-on-one counseling methods may generate more change in trials where women are not explicitly targeted because they may be customized to women's unique and gender-specific problems that impact condom negotiation and usage. When competing with males for participation time in mixed intervention groups, women may be at a disadvantage, especially if they are outnumbered (which was the case in all but two studies that included both genders and employed a group intervention format). It's also conceivable that, in situations where males outnumber women, women's worries regarding condoms (such as the risk of losing relationships or being abused) take a second place to men's concerns.

4. CONCLUSION

A nationwide AIDS risk-reduction plan is required, one that targets not just particular individual behaviors but also the environmental factors that stymie behavioral change. 2 Interventions that are gender and culturally specific are required. When they are skill-based, they seem to be the most effective. Literature shortages must be filled, especially in the areas of community-level interventions, long-term maintenance, and dissemination/technology transfer. In the context of women's sexuality and relationships, a clearer knowledge and description of realistic and acceptable long-term sexual behavior modification is required. Alternative risk reduction techniques that are feasible and acceptable to women, in particular the adoption of additional barrier measures, must be included in future intervention initiatives. In order to allow for a better interpretation of results, future interventions must conform to minimal criteria in the peer-reviewed description of the research design and analysis. Reliability or validity information (including biomarkers); quality control procedures; if relevant, interview guide and facilitator characteristics; a detailed description of intervening variables; a detailed summary of intervening variables

REFERENCES:

[1] F. A. Browne *et al.*, "MHealth versus face-to-face: Study protocol for a randomized trial to test a gender-focused intervention for young African American women at risk for HIV in North Carolina," *BMC Public Health*, 2018, doi: 10.1186/s12889-018-5796-8.

[2] M. R. Decker *et al.*, "A brief, trauma-informed intervention increases safety behavior and reduces HIV risk for drug-involved women who trade sex," *BMC Public Health*, 2017, doi: 10.1186/s12889-017-4624-x.

[3] C. E. Hendrick and C. Canfield, "HIV Risk-Reduction Prevention Interventions Targeting African American Adolescent Women," *Adolescent Research Review*. 2017, doi: 10.1007/s40894-016-0036-x.

[4] C. Mallory and M. Hesson-McInnis, "Pilot Test Results of an HIV Prevention Intervention for High-Risk Women," *West. J. Nurs. Res.*, 2013, doi: 10.1177/0193945911416134.

[5] L. R. Conner, M. Engstrom, E. Junious, and K. Edwards-Knight, "Woman to Woman (W2W): Adapting an HIV risk reduction intervention for older women," *J. Women Aging*, 2018, doi: 10.1080/08952841.2017.1313017.

[6] B. E. McCabe, R. M. Gonzalez-Guarda, N. P. Peragallo, and V. B. Mitrani, "Mechanisms of Partner Violence Reduction in a Group HIV-Risk Intervention for Hispanic Women," *J. Interpers. Violence*, 2016, doi: 10.1177/0886260515575608.

[7] M. Mittal *et al.*, "An Integrated HIV Risk Reduction Intervention for Women with a History of Intimate Partner Violence: Pilot Test Results," *AIDS Behav.*, 2017, doi: 10.1007/s10461-016-1427-5.

[8] T. M. Exner, "A review of HIV interventions for at-risk women," *AIDS Behav.*, 1997, doi: 10.1023/B:AIBE.0000002972.61606.99.

[9] J. Weissman, M. Kanamori, J. G. Dévieux, M. J. Trepka, and M. De La Rosa, "HIV risk reduction interventions among substance-abusing reproductive-age women: A systematic review," *AIDS Educ. Prev.*, 2017, doi: 10.1521/aeap.2017.29.2.121.

[10] H. K. Knudsen, M. Staton-Tindall, C. B. Oser, J. R. Havens, and C. G. Leukefeld, "Reducing risky relationships: A multisite randomized trial of a prison-based intervention for reducing HIV sexual risk behaviors among women with a history of drug use," *AIDS Care - Psychol. Socio-Medical Asp. AIDS/HIV*, 2014, doi: 10.1080/09540121.2013.878779.

[11] T. Poteat *et al.*, "HIV risk and preventive interventions in transgender women sex workers," *The Lancet*. 2015, doi: 10.1016/S0140-6736(14)60833-3.