

Medicine In Islamic Culture

ROLE OF SOCIAL AND CULTURAL FACTORS IN AIDS PANDEMIC AND THEIR EFFECT ON HEALTH PROMOTION PROGRAMS

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ABSTRACT

In most countries, educational programs and condom use is recommended as the most important approaches in controlling HIV infection. We examine the role of different approaches in controlling AIDS epidemics in our region. We find a high failure rate and probably undesirable effects for condom recommendation in epidemiological scale especially considering the low prevalence of HIV infection in our region. Past experience suggests that educational programs in isolation have insufficient effect on health-related behavior in high-risk groups. Present picture of spread of HIV infection discloses the role of religious beliefs, moral values, social nonacceptance of unhealthy lifestyles and illegality of homosexuality, prostitution and drug abuse in controlling AIDS epidemics. In order for health promotion programs to be successful these social and cultural factors should be regarded.
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INTRODUCTION

Acquired immunodeficiency syndrome (AIDS) was first recognized in 1981. Since then modern science has discovered its cause as a novel retrovirus known as human immunodeficiency virus (HIV), defined the nature of immune defect, developed tests to detect antibodies to determine the presence of infection and to screen blood and blood products for HIV, and develop a specific antiviral treatment.¹

Despite these remarkable achievements, the epidemic progresses unchecked resulting in enormous demands on health care facilities and health care providers.¹ Furthermore, it must be remembered that many advances

are far beyond the financial and technical resources of many developing countries.² We review the role of different approaches in controlling HIV epidemics in our region.

Role of Condom in Preventing HIV Infection

HIV is transmitted almost exclusively through sexual contact, parenteral exposure to blood or blood products, and perinatally from infected mothers to their infants.^{1,4} Because at present the risk of HIV transmission via blood products in most countries is insignificant,^{1,4} the HIV infection arises predominantly from liberal sexual contact and addiction.

The risk of sexual transmission of HIV can be completely eliminated by either abstinence from sexual activity or

participation in a mutually monogamous relationship⁽⁶⁾ with an uninfected person.^{1,2,3}

Nevertheless in one study in America, 31% of adolescents did not correctly identify "not having sex" as the most effective way of preventing AIDS despite a high degree of knowledge concerning AIDS and AIDS risk.⁵

Other approaches that will reduce but not completely eliminate the risk of transmission include reduction of number of sex partners,⁽⁶⁾ lack of sexual contact with prostitutes,^{1,4} and efforts to minimize the likelihood of genital or oral mucous membrane exposure to blood, semen, saliva, cervical secretions, and vaginal secretions during intercourse especially avoidance of such high-risk behaviors as insertive anal intercourse, oral-anal and digital-anal activity.^{1,2}

The correct and consistent use of condoms and possibly condoms in conjunction with spermicides can reduce transmission of HIV by preventing exposure to infectious secretions and lesions.¹ Epidemiologic studies suggest that the usage of condoms may be associated in acquisition of HIV from sexual partner either known to have AIDS or at increased risk of infection.¹

For examining condom effectivity, articles from 1986-1992 were reviewed. In this subject studies outside the laboratory (in real situations) are few. In a 1986 JAMA review entitled "Sexually Transmitted Diseases" the authors stated:² "Condom use prevents semen deposition and should reduce the risk of transmission of organisms that may be present in semen, e.g. *Neisseria gonorrhoea*, *Chlamydia trachomatis*, hepatitis B virus, HTLV-III, and *Trichomonas vaginalis*. Herpes simplex virus, HPV, *Treponema pallidum*, and *Haemophilus ducreyi* are transmitted by direct contact with the skin or mucous membranes and have not been found in semen. In various studies men who use condoms have a significantly lower risk of acquiring urethral gonorrhoea, although in one study protective effect failed to achieve statistical significance. Condom use has not demonstrated a similar protection against nongonococcal urethritis." At this time there is no study about condom protection against HIV outside laboratories.

- I. That in our culture approximately conforms with family system. AIDS has no bounds such as age, sex, race and the family system and avoidance of addiction is its boundary. This is reflected in three WHO Eastern Mediterranean Regional Office messages: "Avoid sexual relations outside marriage." "Knowledge and virtue will protect you from AIDS." "Don't take drugs, drug abuse presents many risks, including AIDS, through sharing needles and exposure to promiscuity."
- II. In Kutchinsky's study, what does matter are the frequency, the duration, the intensity and the manner of intercourse. Reducing the number of partners therefore will only help to reduce the risk if they are chosen more carefully and if intercourse is less frequent and safer.⁷

In the first conference about "Condoms in the Prevention of Sexually Transmitted Diseases" in 1987, the presented studies¹⁰ were still based on finding reduction in gonorrhoea in Swedish experience and less venereal disease in US armed forces in World War II after condom use.⁽¹⁰⁾ One of the reasons of uncertainty in condom efficacy was the significant failure rate of condoms used for contraception.^{8,9}

In Gotzche study (1988) 30 female prostitutes and 16 persons from the hospital staff each tested 10 latex condoms by vaginal intercourse. Six dropped out. Condom rupture occurred at least once for 7/40 persons. Total condom rupture rate was 5%. He concluded: "Although encouragement to condom use is prudent in an epidemiological scale, truly safe sex with an HIV-positive partner using condoms is a dangerous illusion."¹¹

Finally April in 1990 pointed out "In several countries the condom is recommended as the most important protection against HIV infection, although there is no proof that the condom is effective against sexually transmitted diseases... To prevent a deadly infection such as that with HIV, safe ways of protection are mandatory. Recent studies on HIV prevention show the assumption that condoms provide reliable protection against HIV to be a dangerous illusion. In carefully planned studies the residual risk was 13% and 27% and more, respectively."^{12,14}

The other matter is the low practical use of the condom despite extensive performed educations and propagations. In one study, 124 individuals applying to treatment for various chemical dependencies and 60 individuals applying for non-chemical dependency medical treatment are surveyed. Only 13.9% always use condoms.¹⁵ In the other study of 137 female sex partners of male injection drug users, despite a high level of knowledge regarding HIV transmission and prevention with an average of 81.8%, almost all (94.9%) reported engaging in unprotected vaginal intercourse during the previous six months and 66% reported anal intercourse without a condom. Among women who did not report consistent condom use, 26.9% of reasons were dislike by their male partner and 23% personal dislike of condoms.¹⁶ In 1229 20-44 year-old San Francisco males, 9% of heterosexuals and 48% of gay/bisexuals reported always using condoms.¹⁷ Among sexually active 11-16 year-old students in one study, only 44% of girls and 31% of boys reported always using condoms.²⁰

Perhaps unexpected, the performed studies indicate that the use of condom in some high-risk groups is lower than non-high-risks. In the Longfold study women who participated in more risk behaviors (substance and alcohol use and minor delinquency) were less likely to have used a

- III. Nevertheless Goldsmith wrote: "So the case is pretty well proved."¹⁰

condom. Knowledge about sexually transmitted disease and AIDS and concurrent use of contraceptive pills were not related to condom practices.¹⁹ In the Soskalene study women who had intravenous drug abuser sex partners were less likely to use condom with regular/casual partners than were women who didn't have drug-abusing partners.¹⁸ Furthermore, Martin's study indicated that in more than 80% the proper use of condoms required correction.²¹

Review of these articles discloses that individual recommendation for condom use, if not accompanied by a change in sexual behavior or presumption of safe sex, is illusive. In social scale the subject is more complex. In societies with high incidence of HIV infection and acceptance of liberal sexual relationship although the efficacy of condom is not very significant,^(iv) the recommendation for its use probably reduces the new cases of HIV infection.

In societies in which nonacceptance and illegality of homosexuality, prostitution, and addiction along with religious and moral values have principal role in HIV infection control,^{4,6} recommendation for condom use if resulting in social or cultural acceptance of high-risk behaviors can be dangerous, especially considering the decrease in advantages of condom recommendation as prevalence of HIV decreases in society.³³

Role of Health Education in Controlling AIDS Epidemics

Past experience with public health campaigns suggests that the mass media and broad public information programs in isolation have little effect on health-related behavior.^{4,13} As Baggely in his comprehensive article pointed out:¹³ "The major obstacle to media campaigns proved to be not so much public illiteracy as the psychological resistance of audiences at high risk... (For example) the polarization of viewer's responses to an otherwise useful film was assumed to be attributable to the common instinct of viewers to seek to protect their individual rights on the basis of their

IV. In our knowledge one of the best results is from Nairobi prostitutes whom after a one year educational program more than 50% were making clients use condoms all the time. The outcome was a three-fold lower rate (33% residual risk) of HIV seroconversion among the women insisting on condom use, than among those not insisting on such use.¹³ But the residual risk in public recommendation is probably far more considering:

1. This is a study in a special group under high supervision not in general population with already mentioned factors such as illusion of safe sex, low practical use of the condom despite extensive performed educations, incorrect use of condoms decreases condom efficacy.
2. Those prostitutes in this study that had not given up prostitution or did not use condom persistently despite joint efforts probably are those with lower change in high-risk behaviors. Then some of HIV seroconversion decrease is from safer behaviors in persistent condom users.

assessment of their own AIDS risk. The perceived low urgency on the part of high-risk viewers was attributed to a denial reaction."^(v)

In one study in three geographic locations utilizing a standard AIDS prevention program these results were obtained:²²

1) The Chicago participants began with the most knowledge about AIDS but gained least in the workshop, ending lowest, while the Orange County participants started with the least knowledge and gained the most, ending highest.

2) The same change pattern was demonstrated in terms of attitudes. However, all groups started the discussion group with approximately the same risk behavior for HIV transmission, and all groups committed to the same amount of change in risk behavior at workshop termination, demonstrating the independence of behavior change from knowledge and attitude changes.

3) Additionally, there is no correlation between knowledge about AIDS, attitude towards AIDS, and post-workshop intentions regarding risk behavior.

The authors concluded that prevention programs should emphasize actual risk behavior change rather than knowledge increase or healthier attitudes to produce the greatest lethality reduction.

In one prospective study in 235 homosexuals since 1983 the participants were repeatedly given detailed advice for avoiding HIV infection. Nine HIV seroconversions were noted during the follow-up of 5-40 months and all individuals had practiced "unsafe" sex.

The author concluded²³: "Further spread of HIV is to be expected because 57% of the men still reported practicing anal sex at the end of the follow-up and 42% of them without condoms despite the high supervision on this group. The studies of Langefeld and drug user partners is already mentioned.^{16,19}

Just as stated in behavioral psychology:²⁴ "Clearly, behavior is determined by many factors of which our attitude is but one, and these other factors affect attitude-behavior consistency. One obvious factor is the degree of constraint in the situation; we must often act in ways that are not consonant with what we feel or believe ... Peer pressure can exert similar influences on behavior. For example, a teen-ager attitude toward marijuana is correlated about 50% with his or her actual marijuana use, but the number of marijuana using friends the teen-ager has is an even better predictor."

This is important particularly in adolescence. As parenteral influence diminishes, the peer group's influence grows.²⁵ In some societies with "sexual liberation" teen-agers who resist the peer to become sexually experienced

V. In other words "Often we know how we should act but may not do so when our self-interest is involved."²⁴

run the risk of being "up tight, old-fashioned, sissy." On the other hand, teen-agers who become sexually active may feel anxious, confused, guilty or inadequate.²⁵

However, if media campaigns and educational programs did not continually contradict and conflict with one another, it is at least arguable that their effects would be more substantial.¹³ The public should be informed of the nature of the disease, its main modes of transmission, and particularly the dangers of promiscuous sexual relations.⁴ As the office of disease prevention and health promotion recommends:³ "Sexually active patients should be advised that abstaining from sex or maintaining a mutually faithful monogamous sexual relationship with a partner known to be uninfected are the most effective strategies to prevent infection with HIV or other sexually transmitted diseases." Mrs Crenshaw, president of the American Association of Sex Educators, Counselors, and Therapists in Atlanta stated: "For the sake of health, casual sex and multiple partners must be abandoned." The message Crenshaw and her group stress is that "sexual behavior can change, but not unless we expect it and recommend it."¹⁰

Despite these emphases from January to September 30, 1992, 81,849 cases of HIV infection were reported in Europe to the WHO, a 26% increase in comparison with the same period last year. In our region although HIV infection shows rapid progression in groups practicing high-risk behaviors, among the general population, sero-prevalence rates are in general around 1/10,000.⁴ There are certain factors related to the present picture of spread of HIV infection in the Region. These include:⁴

- 1) Late introduction of the infection into the Region.
- 2) Homosexuality, although present in some communities in the Region, is not tolerated by the community and furthermore homosexuals do not enjoy a high social position or visibility in society. Also the pattern of homosexuality is different from that observed in the USA and Europe. In this Region, persons involved usually do not have multiple sex partners and, if grouped at all, the groups are very small.
- 3) Prostitution in most of the countries of the region is illegal; however, no one denies its existence.

As Dr. Wahdan emphasized:⁴ "This Region is, however,

VI. More than fifty years ago Dr. Alexis Carrel wrote: "Nothing other than regulations can limit sexual instinct since we want to possess any beautiful woman following our instinct resulting in disturbance of social system, and self-restraint is often insufficient." The present situation described in Novak's Textbook of Gynecology is as follows:²⁶ "Sexual assault is so common in the United States that all women are touched by fear, thinking perhaps they might become a victim" and in etiology review concluded: "It is the social acceptance of rape and rape myths that plays a major role in the continued existence of rape in the Western World."

fortunate in its religious and social values and cultures which teach people self-respect and morality; this means that it is recognized that such entities as good and evil, right and wrong, exist and that everyone has a duty to act morally towards other people. There is no doubt that the best method of preventing HIV infection is to avoid sexual relations beyond that which the religions of the Region permit." Consequently, in this Region efforts should be made to benefit from the strong religious beliefs in promoting healthy life styles and refraining from an unhealthy one.^{4,31} Finally some facts are pointed out:

1. Despite appropriate treatment, high quality health care, public education, and prophylactic use of antiseptics and condom, in America the total reported number of cases of syphilis has increased 50% from 1986 through 1988.²⁷ Whereas positive RPR test in Iranian Transfusion Center which increased from 0.3% to 0.7% in 1974 through 1976 decreased to 0.2% in 1985-1987. This indicates a far more decrease in syphilis incidence due to social factors especially Islamic rules since there is no evidence for better treatment or sample inadequacy in this period.²⁸

2. Case-control studies documented an association between HIV infection and sexually transmitted diseases (STDs) such as syphilis, gonorrhea, and genital herpes. STDs may play a direct role in facilitating HIV transmission by disrupting genital epithelium.¹ In Africa, lack of circumcision and the presence of genital ulcerations dramatically enhance the probability of heterosexual transmission.²⁹

STDs reflect, in part, a sexually active life style that usually includes large numbers of sex partners.¹ Some investigators believe that prostitution as a social factor is the main reason for the spread of venereal diseases.³² This emphasizes the role of campaigning against all sexually transmitted diseases and social factors predisposing to STDs in controlling the AIDS epidemics.

3. Studies in some countries with high infection rates have shown that people in high-risk categories are prepared to change their life styles and behavior voluntarily to avoid the more obvious risks of infection by HIV.⁴ In one study in Nairobi⁽³¹⁾ despite giving up prostitution and persistent use of condoms are emphasized, a small number of women informed that they had given up prostitution.¹³ As Baron stated:³⁰

"Several surveys have found that during the past ten years, college students especially females have grown increasingly conservative in their sexual attitudes (Gerrard, 1986). And these attitudes are reflected in actual behavior:

VII. But more than 50% reported continuation of prostitution (probably due to social and cultural factors in this society) with use of condom. As already stated any recommendation for condom use must emphasize on its imperfect efficacy and risks of prostitution and addiction beyond sexually transmitted diseases.⁶

a smaller proportion of students report being sexually active in the late 1980s than was true a decade ago (Gerrard, 1986). Why has this change happened? One possibility lies in the rising incidence and seriousness of sexually transmitted diseases. Young people are less and less willing to accept the risks involved in casual sex encounters. Another is the general shift toward more conservative values that has occurred in the United States and many other nations during the 1980s.

CONCLUSION

The vast majority of studies about controlling HIV infection has been performed in societies like America, consequently the final ways presented in regard to social factors that limited extramarital sex and encouraging free sexual relationships. Thus employing these measures in other societies can be disastrous especially in view of inadequacy of these measures as yet. Furthermore, in many of these measures we must distinguish between scientific facts and presented conclusions since there are social, cultural, and political grounds for changing or ignoring some facts. Despite this, the basic emphasis is on the change of sexual behavior and maintaining a mutually faithful monogamous sexual relationship in most of the references.

In this Region efforts should be made to benefit from the strong religious beliefs and appropriate cultural and social factors in promoting healthy life styles and refraining from unhealthy ones.⁴

REFERENCES

1. Chamberland ME, Curran JW: Epidemiology and Prevention of AIDS and HIV infection. IN: Mandel et al (eds.). Principles and Practice of Infectious Disease, New York: Churchill Livingstone 1029-46, 1990.
2. Stone KM, et al: Primary prevention of sexually transmitted diseases (Editorial Review). JAMA 255: 1763-6, 1986.
3. Office of Disease Prevention and Health Promotion, National Health Information; Counseling to prevent HIV infection and other STDs. Am Fam Phys 41 (4), 1990.
4. Wahdan MH: Epidemiology of Acquired Immunodeficiency Syndrome; 3rd ed, WHO Regional Office for the Eastern Mediterranean, 1991.
5. Botvin: GJ AIDS risk knowledge, attitudes, and behavioral intentions among multi-ethnic groups, AIDS Educ Prev., 3: 367-75, 1991.
6. A Message For You Dear Citizen; WHO Regional Office for the Eastern Mediterranean, 1992.
7. Guy de The; AIDS News and Views 89-90, Paris, McGraw-Hill, 1989.
8. Bromham DR: Condoms as primary method of contraception- BMJ 302: 1150, 1991.
9. Kirkman R: Condom use and failure. Lancet 339: 1009, 1990.

10. Goldsmith MF: Sex in the age of AIDS calls for common sense and "condom sense." JAMA 257: 2261-6, 1987.
11. Gotzche PC: Condoms to prevent HIV transmission don't imply truly safe sex. Scand J Infect Dis 20: 233-4, 1988.
12. Aril K: How far the condom protects against HIV infection? Schewiz Med Woschenschr 120: 972-8, 1990.
13. AIDS Prevention Through Health Promotion. WHO, 1991.
14. Trussel J: Condom Slippage and breakage rates. Fam Plann Perspect 24(1): 20-3 1992.
15. Kramer TH: Condom knowledge, history of use and attitudes among chemically addicted populations. J Subst Abuse Treat 8: 241-6, 1991.
16. Corby NH et al: AIDS knowledge, perceptions of risk and behaviors among female sex partners of injection drug users. AIDS Educ Prev 3: 353-66, 1991.
17. Catania JA et al: Condom use in multi-ethnic neighborhood of San Francisco. Am J Public Health 82: 284-7, 1992.
18. Soskolone V et al: Condom use with regular and casual partners among women attending family planning clinics. Fam Plann Perspect 23(5): 222, 1991.
19. Langefeld CD et al: Factors associated with condom use among sexually active female adolescents. J Pediatrics 120(2): 3117, 1992.
20. Dielement RJ: Determinants of condom use among junior high school students in minority, inner-city school district. Pediatrics 89: 197-202, 1992.
21. Martin DJ: A Study of the deficiencies in the condom skills of gay men. Public Health Reports 150(4): 638, 1990.
22. Flowers JV, et al: Comparison of the results of a standardized AIDS prevention program in three geographic locations. AIDS Educ Prev 3: 18-96, 1991.
23. Valle S: STDs and the use of condoms in a cohort of homosexual men followed since 1983 in Finland. Scand J Infect Dis 20(20): 153, 1989.
24. Atkinson PL, Atkinson RC, Hilgard ER: Introduction to Psychology, New York; Harcourt Brace Jovanovich, p.84, 1983.
25. Crooks KL, Stein J: Psychology Science, Behavior, and Life. New York: Holt, Rinehart and Winston Inc, p.373-6, 1988.
26. Cartwright PS: Sexual violence. In: Jones III HW et al (eds). Novak's Textbook of Gynecology, Baltimore: Williams and Wilkins, 525-533, 1988.
27. Loukehart SA, Holmes KK: Syphilis. In: Wilson JD et al (eds). Principles of Internal Medicine, New York: McGraw-Hill, p.651, 1991.
28. Simforoosh N: A decrease in the incidence of syphilis in Iran and the effect of Islamic rules in controlling sexually transmitted diseases. Med J Islam Repub Iran 6(3): 39-43, 1992.
29. Gerberding JL, Sande MA: Acquired Immunodeficiency Syndrome. In: Stein JH et al (eds). Internal Medicine, Boston: Little, Brown and Company, 1347-1356, 1990.
30. Baron RA: Psychology; the Essential Science. Boston: Allyn and Bacon, p.262, 1988.
31. A message on AIDS for medical practitioners. WHO Regional Office for the Eastern Mediterranean, 1992.
32. Fleming WL: Syphilis through the ages. Med Clin N Amer 48: 587, 1964.
33. Hearst N, et al: Preventing the heterosexual spread of AIDS. JAMA 259: 2428-32, 1988.