This document reviews five psychological domains of prevention of the behavioral disease of Acquired Immune Deficiency Syndrome (AIDS). First the limits of AIDS education are discussed, noting that increasing amounts of education will not necessarily reduce the spread of the virus, since information and education do not control behavior. Research showing that physicians are ill-equipped to diagnose AIDS or to counsel patients regarding their sexual practices is described. The lack of perception of personal vulnerability to AIDS by teenagers is discussed, noting that adolescents may not identify themselves as "gay" or "addicts," and thus not perceive themselves at risk. Lifetime behavior changes are discussed which may be necessary, but information alone will not produce such long-term behavioral change. The report notes that behavioral consequences are likely to be more important than antecedents such as reinforcers and information. It is also noted that long-term benefits of "safer sex" (such as not contracting the human immuno-deficiency (HIV) virus) may be outweighed by the short-term benefits of "unsafe sex" such as spontaneity. The report concludes that AIDS prevention will depend less on knowledge about HIV and more on an understanding of human behavior. (Author/ABL)
AIDS: it's not what you know, it's what you do

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Abstract

AIDS is a behavioral disease. This presentation briefly reviews five psychological domains related to AIDS prevention, including: 1) Educational limitations--Increasing amounts of AIDS information will not necessarily reduce the spread of the virus; 2) Professional influences--Physicians often lack expertise in key areas of AIDS prevention and diagnosis; 3) Personal vulnerability--Although young people may experiment with homosexuality and IV drug use, they may not identify themselves as "gay" or "addicts", and thus not perceive themselves to be at risk; 4) Behavior change--Lifetime changes in sexual behavior may be necessary, however, information alone will not produce such long-term behavioral change. Behavioral consequences are likely to be more important than antecedents (i.e., reinforcers vs. information); 5) Risks and benefits--Long term benefits of "safer sex" (e.g., not contracting HIV) may be outweighed by the short term benefits of "unsafe sex" (e.g., spontaneity). AIDS prevention will depend less on our knowledge of HIV and more on our understanding of human behavior.

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I. Educational limitations:

AIDS is a behavioral disease, not an educational disease. Information and education may influence decisions and behaviors; they do not control behaviors. Despite the overwhelming emphasis on education, consequences still control behaviors.

Efforts to prevent the spread of HIV by information alone will be insufficient. Factual information about the virus is useful, but information alone is unlikely to lead to significant behavioral change (e.g., Becker & Joseph, 1988). This disease is not going to go away simply because people know more about it—knowledge is not a psychological magic bullet.

There is no shortage of technical information about AIDS, although not all of it is understandable to the general public. In a review of 16 AIDS educational brochures, Hochhauser (1987) found that the average reading level was 2nd year college, with some written at a graduate school reading level. Fortunately, the new "Understanding AIDS" brochure that was distributed nationally this summer was written at an estimated eighth grade reading level.

In an earlier review, Siegel, et al (1986) assessed 22 safe sex brochures on about a dozen content areas. Several limitations were identified, including lack of a rationale for why a particular practice was considered risky, limited focus on AIDS prevention with reference to other sexually transmitted diseases, and use of a fear message without a plan for dealing with fear.

Little significant behavioral change has occurred as a direct result of these efforts (e.g., Office of Technology Assessment, 1988), primarily because evaluation has not been a major component in many AIDS education programs. Those individuals who have made significant changes in their sexual or drug
using behaviors were probably influenced more by the illness or death of a lover, friend, or family member, or by being taught specific skills than by the anonymous technical information they were given about AIDS.

Such educational limitations should not be surprising, given the slow progress that has been observed in other health areas. After 22 years of information about the hazards of cigarette smoking, about 27% of American adults continue to smoke, down from 40% in 1964, when the Surgeon General first issued health warnings about smoking. The changes that have occurred in smoking behavior during this time are due to a variety of factors: health warnings on cigarette packages; non-smoking legislation, physician warnings to patients, responsibility for personal health, smoking prevention programs in the schools, perception of smoking as socially unacceptable, availability of treatment programs, etc. Despite these efforts, smoking has not disappeared after 22 years--AIDS will be equally difficult to eradicate.

Assumptions abound: "We are living in an age in which it is virtually impossible not to know about AIDS" (Buckley, 1987). Nevertheless, a November 1987 survey of US adults (Dawson, et al, 1988) found that:

- 38% reported knowing little or nothing about AIDS
- 35% had never discussed AIDS with a friend or relative
- 34% thought it likely that they could get AIDS from mosquitoes/insects
- 32% had not discussed AIDS with their children aged 10-17
- 28% thought it likely that they could get AIDS from public toilets
- 22% believe that they could get AIDS from donating blood
17% believe that they could get AIDS from working near someone with AIDS.

15% thought a diaphragm was effective in preventing AIDS.

11% believe that they could get AIDS from pets or animals.

Not everyone knows everything about AIDS.

II. Professional influences:

Research in California (Lewis, et al, 1987) has shown that many physicians are ill-equipped to diagnose AIDS or to counsel patients regarding their sexual practices. A relatively low percentage of California physicians reported appropriate knowledge and skills regarding AIDS:

- Sexual history taking: 35%
- Knowledge of pre-AIDS: 45%
- Knowledge of screening test: 16%
- Diagnostic work-up: 18%
- Identification of risk groups: 53%
- Advise patients correctly: 34%

Similar findings were recently reported in Minnesota (Schultz, et al, 1988). Of those Minnesota physicians who had seen no HIV-infected patients, only 17% routinely assessed homosexuality/bisexuality risk factors in their patients, while of those Minnesota physicians who had seen 10 or more HIV infected patients, 77% routinely assessed homosexual/bisexual risk factors.

Similarly, of those physicians with no HIV disease experience, 27% agreed with the statement that "Homosexual behavior is not acceptable for our society", while only 5% of the AIDS-reporting physicians agreed. If risk factors are not addressed by physicians, an important consequence to "unsafe sex" is omitted; indeed, by not asking about risk-factors, physicians may be implicitly reinforcing inappropriate behaviors in their patients.
Fortunately (or unfortunately), the national survey (Dawson, et al, 1988) found that only 2% of the general public reports getting most of their information on AIDS from their doctor/HMO/clinic; the vast majority of the population gets its information about AIDS from television (57%), newspapers (19%), or magazines (9%)—only 2% from brochures/fliers/pamphlets.

III. Personal vulnerability:

Missing from most informational materials is an emphasis on personal vulnerability. For example, many adolescents and young adults believe that they are immune to illness and disease—they do not believe that they can contract the HIV. After all, "other" people get AIDS—homosexuals or IV drug users. Although students may experiment with homosexual sex and occasional IV drug use, they do not identify themselves as "gays" or "addicts". Consequently, they simply do not have the perception of personal vulnerability that is necessary before risk reduction behaviors can reliably occur. Why engage in risk reduction if one is not at risk?

Young people may not establish their sexual identities until well into their twenties. Sex is often not planned for; it is to be spontaneous. Unfortunately, spontaneity is not an effective barrier to the HIV. Behavioral protection means that sexual activity, should it be selected, must be planned in advance. Such planning includes talking with one's partner, making a decision to engage (or not engage) in sex, mutually deciding which "safer sex" practices are acceptable or unacceptable, and which "unsafe sex" practices are inappropriate. These behavioral choices are all based on how much the individual perceives him/herself to be vulnerable to the virus.
Information on self-disclosure, which is so important in "safer sex" practices, is complex. In a survey of college students, Cline (1986) found that females disclosed more intimately than males, and there was greater disclosure to same-sex than to opposite-sex partners. Cline concluded that males and females perceive intimacy differently, presumably because males and females valued disclosure intimacy differently. Such insights are crucial for sex education programs/personal counseling, etc.

Furthermore, AIDS educational materials have stressed the technical information regarding transmission of the virus, and listed the "don'ts", as if behavior change will naturally and easily follow such warnings. Yet, psychological research suggests that messages with too much fear can lead to avoidance of the message (e.g., Job, 1988). Messages emphasizing death and tear, while technically accurate, may be counterproductive, if such fear leads to psychological avoidance. Equally important, much of the federal AIDS information seems to be inconsistent with what is known about adolescent development.

Table #1 about here

IV. Behavioral change:

In the absence of a vaccine or treatment for AIDS, behavioral changes that occur must be reliably practiced throughout the lifetime of the individual. Relapses to "unsafe sex" practices will undoubtedly occur; nevertheless, the changes in human sexual behavior that must occur are unlike any changes that our society has ever contemplated. We will simply have to co-exist with the
AIDS virus as a part of our life and our lifestyle. Change will not occur simply because we want it to occur.

Unfortunately, theoretical models seem to have largely been ignored in much of the educational effort. For example, McCarthy (1985) scaled the relative importance of physical, social and psychological health for youth aged 9 to 19 years. For 9 year olds, for example, the most important health-related messages were physical, followed by social and psychological messages. For 13 year olds, the most important messages were social, followed by psychological and physical, while for 19 year olds, the most important messages were psychological, followed by social and physical. In order to be effective, AIDS prevention messages must take into account such developmental differences, especially with respect to cultural and ethnic differences. A single AIDS prevention message is unlikely to be effective for all White, Black, Hispanic, Native American, Asian American male and female heterosexual and homosexual young people.

Major behavioral methods for the prevention of AIDS are abstinence, monogamy and condoms. It is one thing to recommend abstinence; unless it's part of a larger system it will be about as effective as just telling an alcoholic to "just say no". Definitions must be agreed upon. Does abstinence mean no sexual contact at all or just no sexual intercourse? How should relapses be handled? How can cultural and sub-cultural values be incorporated into abstinence-based messages? What is the reinforcement for staying abstinent—not contracting HIV may not be an adequate reinforcer for everyone, especially given the long latency of the disease.
V. Risks and benefits:

Personal assessment of risks and benefits are part of any contemplated changes in behavior. The societal benefits to abstinence, monogamy and condoms are reduced cases of HI, transmission and reduced medical treatment costs. The benefits to the individual who does not contract HIV are obvious. Motivating individuals to change should be relatively easy—or should it?

Potential risks perceived by the individual should not be ignored when developing prevention programs. Although abstinence, monogamy and condoms may prevent the spread of HIV, individuals may also believe that these methods prevent their ability to be intimate with the person(s) of their choice, to experience their particular kind of sexual pleasure, or to communicate sexually. For some individuals, these values may be more important than the perceived remote risk of contracting AIDS. Prevention programs that fail to take into account such psychological tradeoffs are unlikely to achieve any long term behavioral success. Denial of human sexuality will do little to slow the spread of HIV.

Recent studies suggest that it may take a year or more for some individuals to become HIV positive after being exposed to HIV. Thus some individuals who have tested negative may in fact be positive when tested a year later. If replicated, these findings have profound implications both for testing and behavioral change issues. The importance of appropriate counseling for those who have tested negative is that much more important. Far too often, the individual who tests negative is not given appropriate risk reduction counseling regarding his/her behaviors; in some cases the person gets a psychological pat on the back for being negative, and may be implicitly told
that his/her behaviors did not put him/her at risk (otherwise the results would have been positive). Again, "unsafe sex" is being reinforced by some health professionals.

If a large number of HIV negative individuals are in fact positive, the lack of safer sex counseling may be responsible for a rapid spread of the virus by individuals who are biologically HIV positive but psychologically HIV negative. Considerable controversy surrounds the value of mandatory HIV testing (and counseling). These long latencies strongly support the need for appropriate counseling activities for both positive and negative individuals, as a single negative test result may be virtually meaningless. If anything is to be mandated, it should be counseling, not testing.

People don't contract HIV because they don't know the facts about AIDS. They get HIV because they believe that they are immune to the virus and don't have to change the ways they behave. The prevention of future AIDS cases depends less on what we know about the virus than what we now about human behaviors and how to change them.

References


Table #1: Contradictions between government AIDS messages and adolescent characteristics

<table>
<thead>
<tr>
<th>US Government Message</th>
<th>Adolescent Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Risk Taking</td>
<td></td>
</tr>
<tr>
<td>1) Avoid risks</td>
<td>1) Take risks</td>
</tr>
<tr>
<td>2) Abstinence</td>
<td>2) Have been abstinent</td>
</tr>
<tr>
<td>3) Restraint</td>
<td>3) Impulsive</td>
</tr>
<tr>
<td>4) Vulnerable</td>
<td>4) Invulnerable</td>
</tr>
<tr>
<td>5) AIDS and death</td>
<td>5) Death as challenge</td>
</tr>
<tr>
<td>II. Values</td>
<td></td>
</tr>
<tr>
<td>6) Family values</td>
<td>6) Peer values</td>
</tr>
<tr>
<td>7) Responsibility</td>
<td>7) Irresponsibility</td>
</tr>
<tr>
<td>8) Conformity</td>
<td>8) Rebellion</td>
</tr>
<tr>
<td>9) Family closeness</td>
<td>9) Independence</td>
</tr>
<tr>
<td>10) Moral principles</td>
<td>10) Pleasure principles</td>
</tr>
<tr>
<td>III. Behavior change</td>
<td></td>
</tr>
<tr>
<td>11) Long term results</td>
<td>11) Immediate results</td>
</tr>
<tr>
<td>12) Teaching values</td>
<td>12) Learn from experience</td>
</tr>
<tr>
<td>13) Logical</td>
<td>13) Emotional</td>
</tr>
<tr>
<td>14) Just say no</td>
<td>14) Experimentation</td>
</tr>
<tr>
<td>IV. Assumptions</td>
<td></td>
</tr>
<tr>
<td>15) Promiscuous sex</td>
<td>15) Selective sex</td>
</tr>
<tr>
<td>16) Paternalism</td>
<td>16) Making choices</td>
</tr>
<tr>
<td>17) Homogeneous culture</td>
<td>17) Heterogeneous culture</td>
</tr>
<tr>
<td>18) Talk about sex</td>
<td>18) Don't talk/talk to others</td>
</tr>
<tr>
<td>19) Marriage/Commitment</td>
<td>19) Dating/noncommittal</td>
</tr>
<tr>
<td>20) Parental communication</td>
<td>20) Parental &quot;ignorance&quot;</td>
</tr>
</tbody>
</table>