Adolescents and AIDS education: A role for school psychologists

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Adolescents and AIDS education: A role for school psychologists

Abstract
Acquired immune deficiency syndrome (AIDS) is a disease that is affecting many people throughout the world (Ralston, 1988). The virus that causes AIDS is known as the human immunodeficiency virus (HIV). AIDS is considered the epidemic of our generation. It has tested scientific knowledge, questioned private values, and depleted our strength (Center for Disease Control and Prevention (CDC), 1993a). To face the many challenges that lie ahead, adolescents must have scientific, dependable information about HIV and AIDS (CDC, 1993b). AIDS was first reported in the United States in 1981 (Benza & Zumwalde, 1987; CDC, 1993a). By the end of 1992, more than 250,000 Americans had developed AIDS and more than 170,000 had died. In 1993 alone, it was estimated that 47,000 to 60,000 more Americans would die of AIDS and an estimated 40,000 to 80,000 becoming infected with the HIV virus. Presently, approximately 1,000,000 Americans are infected with HIV. That is nearly one American out of every 250 (CDC, 1993a).
ADOLESCENTS AND AIDS EDUCATION: A
ROLE FOR SCHOOL PSYCHOLOGISTS

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Acquired immune deficiency syndrome (AIDS) is a disease that is affecting many people throughout the world (Ralston, 1988). The virus that causes AIDS is known as the human immunodeficiency virus (HIV). AIDS is considered the epidemic of our generation. It has tested scientific knowledge, questioned private values, and depleted our strength (Center for Disease Control and Prevention (CDC), 1993a). To face the many challenges that lie ahead, adolescents must have scientific, dependable information about HIV and AIDS (CDC, 1993b).

AIDS was first reported in the United States in 1981 (Benza & Zumwalde, 1987; CDC, 1993a). By the end of 1992, more than 250,000 Americans had developed AIDS and more than 170,000 had died. In 1993 alone, it was estimated that 47,000 to 60,000 more Americans would die of AIDS and an estimated 40,000 to 80,000 becoming infected with the HIV virus. Presently, approximately 1,000,000 Americans are infected with HIV. That is nearly one American out of every 250 (CDC, 1993a).

In the second decade of the AIDS epidemic, homosexual men still account for the majority of AIDS cases reported each year. However, AIDS is becoming more prominent in the young and heterosexual men and women (CDC, 1993a). AIDS is now the second leading cause of death among males and the
fifth leading cause of death among females aged 25 to 44 years (DiClemente, 1992; CDC, 1993a). AIDS is also rising rapidly in the ranks of the leading cause of death among children one to four years of age, and the sixth in young people ages 15 to 24. In people ages 15 to 24 years, AIDS deaths have increased 100-fold between 1981 and 1987. If current trends continue, AIDS could be among the top five causes of death for this age group in the next few years (DiClemente, 1992). Further, HIV infection continues to spread, despite the fact that the majority of people know how to prevent it (CDC, 1993a).

PURPOSES OF PAPER

The purposes of this paper were to develop an understanding of the epidemic of our generation and to review interventions that combat its spread in school-aged groups. Without current information, adolescents may continue in their high-risk lifestyles, thus spreading HIV infection and the AIDS disease. As educators we must address issues of adolescents' risky behaviors in order to promote healthy lifestyles.

DEFINITION OF AIDS AND AIDS-RELATED COMPLEX

Defining AIDS, as opposed to HIV, has been difficult because in many instances it is an opportunistic disease, and not HIV itself, that causes death. Traditionally, AIDS has been defined as "the stage of an HIV infection when
certain conditions, including Pneumocystis carinii pneumonia and Kaposi's sarcoma, first occur" (Encyclopedia Americana, 1994, p.366). In 1992, however, the U.S. Center for Disease Control reviewed the possibility of changing the definition. The projected definition stated that a diagnosis of AIDS would be based on the quantity of a type of immune system cell, the CD4 T-helper lymphocyte, in the bloodstream. A healthy person has about 1,000 such cells per cubic milliliter of blood, but HIV destroys these lymphocytes. If an infected person's lymphocyte count drops to 200 or less per cubic milliliter, according to the proposed definition, the patient would be diagnosed with AIDS (Encyclopedia Americana, 1994).

AIDS-Related Complex

People with AIDS-Related Complex have frequent combinations of symptoms of immune deficiency such as fungal infections of the mouth, fevers, chronic fatigue, or diarrhea, but they do not have the opportunistic infections, cancers, wasting, or dementia that characterize AIDS. People with AIDS-Related Complex may return to having no symptoms (while remaining infected), may carry on for an undetermined amount of time with AIDS-Related Complex, or may develop AIDS. Though related to AIDS, AIDS-Related Complex does not always progress to AIDS (Douglas & Pinsky, 1987; Stine, 1993).
BIOLOGICAL COMPONENTS

AIDS is a degenerative disease that destroys a person's ability to fight off certain diseases, leaving the body open to attack from unusual types of cancer and generally curable infections. AIDS is a group of symptoms caused by infections and/or cancers, primarily due to disruption of the immune system by an underlying viral infection. The most common causes of death in people with AIDS are pneumocystis carinii pneumonia and Kaposi's sarcoma (Douglas & Pinsky, 1987; Encyclopedia Americana, 1994).

The immune system fights disease in many ways. It produces white blood cells, called lymphocytes, which are the initial strike force of the immune system. These white blood cells bury and destroy disease-causing organisms such as bacteria, viruses, and fungi. Disease-causing organisms are called pathogens. The white blood cells also consume worn out body cells and cells that have become cancerous (Rathus & Boughn, 1993).

Human Immunodeficiency Virus (HIV)

The HIV infects primarily helper T-cells (also known as T4 cells) and monocytes/macrophages. Both helper-T cells and macrophages serve important functions in the body's immune system. Helper T-cells identify attacking pathogens and warn other white blood cells, called B cells, to generate antibodies that attach to pathogens. In binding
with them, antibodies inactivate the pathogens and mark them for ruin. Helper T-cells also signal another kind of cell, the killer T-cell, to destroy the cells that have been infected by the pathogen (Rathus & Boughn, 1993). By attacking and destroying helper T-cells, HIV damages the very cells that would allow the body to fight them and other disease-causing organisms off (Rathus & Boughn, 1993). HIV also infects and destroys other types of cells causing damage to intestinal lining, which leads to severe weight loss. Damage to other nerve cells also may cause dementia or other neurological problems (Douglas & Pinsky, 1987; Encyclopedia Americana, 1994). As HIV impairs the immune system, the person becomes susceptible to other infections and to forms of cancer. Without an effective immune system, these diseases run out of control, consequently causing death (Rathus & Boughn, 1993).

Infection by HIV may not lead to AIDS; however, with an average time of four or more years for AIDS to develop, it is unknown what percentage of persons infected with the virus will contract AIDS during their lifetime. Nonetheless, the remaining infected persons that do not develop overt AIDS are still carriers of the virus and therefore are a threat to transmit the virus to others (Benza & Zumwalde, 1987; Stine, 1993).
Symptoms Of HIV Infection

Persons infected with HIV often experience no symptoms and feel well. Others who develop symptoms report constant fatigue, rapid weight loss, recurrent fevers, diarrhea, white spots in the mouth, and swollen glands usually in the neck, armpits or groin. The first symptoms of HIV infection often resemble influenza or mononucleosis and surface within a few days or weeks after exposure. These symptoms usually disappear after several weeks. An extended disease-free period may last ten or more years after initial infection; more commonly, eight to ten years pass before the appearance of serious disease symptoms. During this latter phase, the HIV-infected (or HIV-positive) person is said to have AIDS (Encyclopedia Americana, 1994).

According to Siegal (1987 cited in Petricciani, Gust, Hoppe, & Krijnen, 1987), a child with congenital HIV infection initially displays recurrent episodes of often unexplained pneumonitis, failure to thrive, dermatitis and other findings common to children with severe, combined immune deficiency.

Opportunistic Infections

As an HIV infection progresses, it causes serious damage to the immune system. As a result, certain cancers may appear and generally harmless infections may be reactivated, causing serious illness. These secondary
infections are referred to as opportunistic. Although passive in most people, they cause illness only in people with immune deficiencies. Opportunistic infections, cancers, and damage to the central nervous system or intestinal tract caused by HIV are currently the cause of most of the deaths in AIDS patients (Douglas & Pinsky, 1987; Encyclopedia Americana, 1994).

Opportunistic diseases spread in the body by taking advantage of the individual’s depressed immune system. The types of symptoms that occur as a result of the HIV damage to the immune system vary according to factors such as an individual’s gender, geographic location, and the prevalence of specific contagious diseases in his or her community. In the United States, as in most industrialized nations, persistent yeast and fungal infections in the mouth are typical early signs that the immune system has been depleted. In women, pelvic inflammatory disease is also a common early symptom (Encyclopedia Americana, 1994).

In developed nations, a type of pneumonia caused by the organism Pneumocystis carinii is frequently one of the first life-threatening illnesses to appear in AIDS patients. However, this is not the case in poorer countries, where many other infectious diseases threaten the population (Encyclopedia Americana, 1994).
HIV TRANSMISSION

Sexual Relations

HIV is transmitted in three ways. First, is by sexual contact or contact with infected blood, semen, or vaginal and cervical secretions via mucous membranes during anal, vaginal, or oral-genital sexual intercourse (Douglas, 1987; Benza, 1987; CDC, 1993a). It is more common for men to transmit HIV to women through vaginal sexual intercourse than for women to transmit it to men in this way. One reason for the difference is that larger amounts of HIV are found in semen than in vaginal secretions. Another reason is that infected semen may remain in the vagina for several days after a couple has engaged in sexual relations, thus providing a greater chance for infection (Rathus & Boughn, 1993).

Infected Blood Or Blood Products

The second way HIV can be transmitted is through either the sharing of infected needles or the injection of infected blood or blood products (Douglas & Pinsky, 1987; Benza & Zumwalde, 1987; CDC, 1993a). Transmission of infected blood can be caused through intravenous, intramuscular, or subcutaneous injection. Blood-to-blood transmission can arise through sharing of unsterilized hypodermic needles and other equipment or through the transfusing of contaminated blood and blood products to blood recipients (Douglas &
Hemophilia And HIV Transmission

In the early 1980s HIV spread rapidly among hemophiliacs who received contaminated blood in transfusions. Hemophiliacs lack clotting factors in the blood. They can thus bleed profusely when they are injured, and blood transfusions may be needed to replace lost blood. More than half of the nation’s 20,000 hemophiliacs were infected with HIV in the early years of the AIDS epidemic (Rathus & Boughn, 1993). However, since March of 1985, the blood supply has been screened for contaminated blood. Since 1987, no hemophiliac in the United States is known to have contracted HIV from a transfusion (Rathus & Boughn, 1993). The present risk of infection from transfusion is now extremely small (Douglas, 1987; CDC, 1993a).

Mother-Infant Transmission

The final way that HIV can be transmitted is from an infected mother to her infant before, during, or shortly after birth (CDC, 1993a). Precise timing of HIV infection in utero is unknown, but data suggests that infections typically occur during early gestation (Falloon, Eddy, Roper, & Pizzo, 1988 cited in DeVita, Hellman, & Rosenberg, 1988). Transmission during birth is also possible since there is exposure of the infant to potentially infected
maternal blood or secretions. However, it has been difficult to document such transmission. Children born cesarean section have been infected and no data suggest a role for cesarean delivery in the transmission of HIV infection (Falloon et al., 1988 cited in DeVita et al., 1988).

Through December of 1992, more than 4,000 children were reported with AIDS—with the majority of them being infected through contact between the infected mother and her child before it was born or during birth (CDC, 1993a). The mothers also infected their babies through breast feeding (Falloon et al., 1988 cited in DeVita et al., 1988; CDC, 1993a).

HIV has consistently been found in blood, semen, vaginal and cervical secretions, and breast milk, but only rarely and in low levels in urine, saliva, and tears. It has not been shown to be present in other bodily fluids, secretions, and excretions (CDC, 1993a). There are many more children who are infected with HIV but have not yet been diagnosed with AIDS. It is estimated that one of every four babies born to infected women will have the HIV infection. In addition, a small number of children with AIDS were infected through blood transfusions and blood products received before testing began in 1985 (CDC, 1993a). It was estimated that by 1994, 7,500 children in the United
States will have developed AIDS from being infected before or during birth, or from breast feeding after birth. During the next decade, at least 125,000 children will become orphans because of this disease and will need to be cared for by extended family members--or placed in foster care. These orphaned children, three-fourths of them not infected with HIV, will require care, both financially and socially (CDC, 1993a).

**ADOLESCENT SUSCEPTIBILITY**

It is believed that teenagers are at an increased risk of becoming infected with HIV because of their experimentation with sex, drugs, and alcohol (CDC, 1993b). Studies indicate that approximately 50% of young adults have sexual intercourse before the age of 19 years (Ralston, 1988). The combination of sexual and drug activity is particularly troublesome in HIV transmission.

**Adolescent Statistics**

The number of AIDS cases reported among U.S. adolescents has increased from only one in 1981 to at least 159 cases in 1992. Cumulatively, through 1992, 946 cases of AIDS among adolescents have been reported (CDC, 1993b). In Iowa alone, May 1994 statistics stated that there were nine reported cases of AIDS in children ages birth to 19 years (Iowa State Health Department, 1994). Although the number
of adolescent cases is relatively small, many more adolescents may be infected with the virus, but have not yet been diagnosed. One in five of all reported AIDS cases are diagnosed in the 20-29 year age group, and the median incubation period between HIV infection and AIDS is about 10 years. Therefore, it is clear that some proportion of those people aged 20-29 years who are diagnosed with AIDS were teenagers when they became infected (CDC, 1993b).

Millions of teenagers experiment with drugs every year. The U.S. Department of Health and Human Services estimates that over 200,000 students have injected illegal drugs. While the use of alcohol and other noninfected drugs do not directly transmit HIV, any time judgement is impaired, unsafe behavior is more likely to occur (Ralston, 1988).

Adolescence is a normal time for teens to explore and experiment with their sexual identity (Kumerow, 1993). This curiosity leads many adolescents to engage in high risk behaviors such as unprotected sexual intercourse (CDC, 1993b). This activity could lead to the transmission of the HIV virus (CDC, 1993b).

GUIDELINES FOR THE EDUCATION OF CHILDREN WITH HIV

The CDC (1985 cited in Kirkland & Ginther, 1988) and the National Education Association (1985 cited in Kirkland & Ginther, 1988) provide national guidelines for the education of children with AIDS and those that are HIV positive. The
CDC recommends a team consisting of the student’s physician, public health personnel, the child’s parent or caregiver, and educational personnel to work together on decisions concerning the kind of educational setting which would be most beneficial to the infected child (Kirkland & Ginther, 1988).

The type of school setting which is most beneficial for infected school-aged children is in an unrestricted setting (CDC, 1985 cited in Kirkland & Ginther, 1988). However, for pre-school-aged children or children who display behaviors such as biting, or incontinence, a more restricted school setting may be more appropriate. Placement decisions should be based on four factors: the infected child’s neurological development, his/her behavior, physical condition, and how the child interacts with other children. From these factors, team members should determine the least restrictive environment most appropriate for the child (Kirkland & Ginther, 1988). The American Academy of Pediatrics (1987 cited in Lail & Schroeder, 1990) suggests that children with AIDS who are neurologically intact can attend school without fear of HIV transmission to classmates. However, infected children who drool, are incontinent, or have open sores should be closely monitored.

Other recommendations include acquiring procedures for handling blood or bodily fluids regardless of whether
children with HIV are known to be attending school. Further, the CDC (1985 cited in Kirkland & Ginther, 1988) suggests confidentiality of school records, and AIDS education for all parents, students, and educational personnel.

The Education For All Handicapped Children Act and Section 504 of the Rehabilitation Act of 1973 also take into consideration children testing positive for HIV and those with AIDS (Kirkland & Ginther, 1988). States receiving federal funds are required by the Education For All Handicapped Children Act to provide a free and appropriate public education to all handicapped children. Children with handicaps are to be educated with nonhandicapped children to the greatest extent possible. Children with AIDS are protected under the Education For All Handicapped Children Act in the section labeled "other health impaired."

Further, Section 504 of the Rehabilitation Act of 1973 does not allow discrimination against persons with handicaps in connection with any program that receives federal funds (Kirkland & Ginther, 1988).

AIDS EDUCATION

With no immunization or cure for AIDS available in the near future, education is seen as the primary defense available against the deadly disease (Calamidas, 1991). To be considered effective, education must motivate people to
recognize personal risk and to take action to change behaviors that put them at risk (Hepworth & Shernoff, 1989). Educational efforts must take into consideration the intense feelings surrounding the topic of AIDS while seeking to motivate people to change their personal behaviors (Hepworth & Shernoff, 1989).

Evidence has shown that adolescents engaging in high-risk sexual behaviors can and will modify these behaviors, if they have appropriate education and motivation (Hepworth & Shernoff, 1989). AIDS education programs for adolescents should address the adolescent’s sense of personal vulnerability and risk-taking behaviors in order to encourage him/her to adopt behaviors that would reduce the possibility of contracting any sexually transmitted disease (STD), including HIV (Calamidas, 1991). Another important aspect is for adolescents to develop an understanding of the role their sexual values play in the control of HIV transmission and AIDS (Calamidas, 1991). At the same time, educators must remember to foster a positive sense of self-esteem and sexual identity (Calamidas, 1991). Programs must be implemented that are most suited to the experiential as well as the developmental levels of the students (Calamidas, 1991).

Research has shown that the most effective AIDS programs must support and reinforce any positive messages
given at home (CDC, 1993a). AIDS programs must be part of a comprehensive health curriculum for each grade. Schools must ensure that students receive AIDS education that is age appropriate and appropriate to their needs (CDC, 1993a).

Adolescents present many risk factors associated with AIDS, but little research has been done that directly addresses adolescents (Humm & Kunreuther, 1991; Zylke, 1989 cited in Kumerow, 1993). By using information related to adolescents' knowledge, attitude and other psychosocial factors related to AIDS, it will be possible to modify and direct AIDS prevention curricula. In turn, these modifications could have a direct impact on adolescent sexual activity and consequently reduce their risk of contracting HIV/AIDS (Kumerow, 1993).

In a statement made in 1986 in Washington, DC, then Public Health Service Surgeon General C. Everette Koop said, "AIDS is not spread by casual, nonsexual contact. It is spread by high-risk sexual and drug-related behaviors--behaviors that we can choose to avoid. Every person can reduce the risk of exposure to the AIDS virus through preventive measures that are simple, straightforward, and effective. However, if people are to follow these recommended measures--to act responsibly to protect themselves and others--they must be informed about them. That is an obvious statement, but not a simple one. Educating people about AIDS has never been easy (Koop & Samuels, 1988 cited in Quackenbush, Nelson, & Clark, 1988, p.27-28).

Because AIDS raises a wide array of issues--sexuality, drug use, mortality, values--no association or person can
single-handedly provide the extensive education needed. Quackenbush et al. (1988) believe that AIDS education for young people must be the result of a combined theme and concern expressed throughout a community, and be a responsibility shared among many. The nation must acknowledge the significance of and rare opportunities for hindering the spread of HIV in the adolescent population and federal organizations must intervene. (Miller, Turner, & Moses, 1990). It is believed that adolescents merit special notice because patterns of health behavior and risk-taking are often initiated during the teenage years. By aiming prevention programs towards adolescents, we may not only be guarding the youth, but also preventing problems in the future adult population (Miller et al., 1990).

An Epidemic With Education As The Main Prevention

Educators have never really experienced a health epidemic for which education was by far the most constructive reaction. Since medical experts believe that a remedy for AIDS will not be discovered in our lifetime, our best hope for combating HIV and AIDS is to educate people so that they don’t engage in behaviors that place them at risk (Popham, 1993).

Popham (1993) believes that instructional leaders have failed to supply adequate AIDS education because educators fail to understand how powerful an educational
intervention must be in order to influence the kind of behaviors that place students at risk. In addition, Popham states that educational programs need to include information about how to avoid risky behaviors. Students need to be knowledgeable about HIV and AIDS, skilled in avoiding behaviors that put them at risk, and motivated to use their skills and knowledge to avoid HIV and AIDS transmission.

Although students must be aware of how HIV is transmitted and about how to avoid that transmission, facts about HIV and AIDS do not bear directly on avoiding risky behaviors (Hays, 1992). Such general knowledge should be considered in AIDS education programs; however, it often tends to divert students from acquiring the functional knowledge of transmission. The majority of the curriculum should focus on preventing transmission (Popham, 1993). Adolescents need to be able to avoid HIV-risk situations, know how to get themselves out of a risky situation, and be able to take proper protective action if they choose to remain in an HIV-risk situation.

Another aspect that should be included in HIV and AIDS education programs is that of motivation. Students need to be motivated to use their knowledge and skills they have mastered. One effective way to motivate students is through the influence of peers who are infected with HIV.
(Popham, 1993). Peer influence also has been shown to be one of the determinants of sexual behavior in adolescents (Hays, 1992; Kumerow, 1993).

**Goals Of AIDS Education**

The goals of educating people about HIV infection and AIDS are to encourage social knowledge and to prevent HIV transmission. In order to accomplish these goals, adolescents must be made aware of their risk status. Education sounds easy; however, knowledge does not promise motivation to change sexual behavior (Stine, 1993). The problem with AIDS education is that conveying the information is relatively simple but modifying behavior, especially addictive and/or gratifying behavior, is quite difficult (Miller et al., 1990).

**Diversity Required In Education Programs**

Currently, there is great diversity in the behaviors of different subgroups of the adolescent population and in the risk of HIV infection faced by these divisions. Intervention programs must consider this diversity of risk. Although the following suggestions made by Miller et al. (1990), have not been empirically verified, they bear a common or practical sense and are based on careful consideration of factors which would assist in the prevention of HIV transmission.

For adolescents who are not engaged in risk-associated
behaviors, intervention programs should attempt to provide information, motivation, skills, and practical assistance to help them continue to avoid risk-associated activities. The main goal of AIDS prevention should be to hinder HIV transmission, and programs should adapt to the range of challenges young people will face and the variety of choices they make. Abstinence, delay of intercourse until marriage, and other traditional behavior patterns are effective ways of eliminating the risk of sexually transmitted HIV infection if in fact these patterns are enacted. Because some teens, however, will choose to begin sexual activity, all teenagers should be educated about the protective significance of condoms. In addition, all teens should be educated about the hazards of illegal drugs (Miller et al., 1990).

Program goals for adolescents who are engaging in sexual intercourse but who are not using illegal drugs should focus on the dangers of drug use and assist in protective changes in their sexual behaviors. Although education about abstinence may be valuable, Miller et al. (1990) suggest giving clear advice concerning the protection offered by condoms.

Intervention programs for adolescents engaging in multiple high-risk behaviors, and those who may already be infected with HIV, should make every attempt to help the
adolescents change the behaviors that place them at risk and should attempt to change any social or economic conditions that support their risk taking (Miller et al., 1990). Teens who are using illegal drugs, especially those who inject drugs, should be encouraged to seek treatment. Those adolescents who continue to use needles should be urged not to share them or other injection equipment. Adolescents should also be informed of the availability of HIV testing and counseling, how this service is delivered, and the importance of the information provided. Teenagers known to be infected will require information and counseling concerning the possible consequences of their infection, including its possible effects on future childbearing and on sexual and drug use partners. In addition, advice should be given about the medical and social services they may need in the future (Miller et al., 1990).

An AIDS Prevention Curriculum For Adolescents

An example of an AIDS education program is Spread the Word (Thompson & Oakland, ed., 1990) which is targeted towards the teenage population. It is the opinion of Thompson and Oakland that students engaging in Spread the Word have the opportunity to gain knowledge about AIDS, acquire effective communication skills, and become objective about AIDS; however, the document provides no research support for their contention. Accompanied with a video,
this educational program gives information, stories, opinions and beliefs shared by adolescents whose lives have been influenced by AIDS. This program can be used in a variety of ways and may be included in several days' activities or presented in one day.

The program objectives are:

"1) To differentiate between facts and myths surrounding HIV and AIDS.
2) To understand AIDS and its consequences.
3) To respond in reasonable ways to AIDS and to those infected with it.
4) To become effective peer educators." (p.6)

It is the suggestion of Kirkland and Ginther (1988) to implement AIDS education programs in sex education and/or biology courses. However, Kirkland and Ginther do not provide any curriculum ideas. If educators did not provide adolescents with AIDS education, it would be a disservice to the students. Further, AIDS education should be taught in all schools regardless of whether or not students with AIDS are currently enrolled. A comprehensive policy of AIDS needs to be developed by administrators, psychological and medical personnel, teachers, and community representatives (Kirkland & Ginther, 1988).

The AIDS crisis calls upon all members of the community to work together to prevent the further spread of this deadly disease. It requires that schools take a hard look at current instruction for health and family life. AIDS
presents one of the biggest challenges educators have ever faced, the challenge of helping to save the lives of their students (Quackenbush et al., 1988).

**PSYCHOLOGICAL RESPONSES TO HIV INFECTION**

Currently there is a lack of research on the psychological problems of a child with AIDS. The most likely psychological response to a student with AIDS is extreme anxiety. However, it is essential to understand that the reactions of family members and significant others in the child’s life often determine behavioral and psychological responses of the child. For example, a frightened parent will most likely convey those feelings onto an otherwise psychologically, healthy child. On the other hand, a psychologically strong parent is apt to strengthen his/her otherwise unstable, frightened child (Kirkland & Ginther, 1988).

Adolescents with AIDS are more likely to understand that AIDS results in death. Therefore, depression is often the major psychological response for adolescents, in turn, placing them at high risk for suicide. Psychological support from parents, teachers, and counselors will be helpful to support the teenager with AIDS (Kirkland & Ginther, 1988).

**HEALTH PROMOTION**

Zins and Wagner (1987) identified the significant role
that behavioral factors play in determining physical and emotional vitality, and the relationship between lifestyle and its effects on an individual's health. Further, many of the leading causes of physical and emotional disorders are related to risky behaviors which can be prevented.

People in the United States are becoming more aware of health-related issues. Attention has focused on ways to prevent the onset of health problems, particularly early in life. With the growing interest in health promotion, school psychologists should be encouraged to "design and develop procedures for preventing disorders [and] promoting mental health" (National Association of School Psychologists: Standards for the Provision of School Psychological Services, 1984 cited in Zins & Wagner, 1987, p.259).

It is the opinion of Zins and Wagner (1987) to place emphasis on eliminating or reducing risk-taking behaviors and strengthening adolescents' skills and knowledge they have already acquired. Further, Zins and Wagner (1987) believe that school personnel can help by modeling healthy lifestyles for the students, helping students resist negative social influences, and assisting students in the development of assertiveness skills.

It is essential for programs on health promotion to consider a developmental perspective as well as the relationship between societal changes and health-related
behaviors. A developmental approach should focus on times throughout a child's life during which problems may arise. Since children go through many changes as they develop, interventions should be directed towards periods in a child's life that may influence his/her behaviors (Roberts & Peterson, 1984 cited in Zins & Wagner, 1987). In addition, a developmental perspective should acknowledge the importance of early intervention because of the long-term effects of risk-taking behaviors (Madduz, Roberts, Sledden, & Wright, 1986 cited in Zins & Wagner, 1987).

Zins and Wagner (1987) have reviewed several interventions which have been shown to be effective and can be implemented by school psychologists. At the organizational level, it is the opinion of Zins and Wagner for health promotion programs to be structured so that their ideas, policies and services take a health promotion direction. However, they cite no research to support this. Further, schools, as organizations, can direct their efforts towards the ideas which are valued most in that setting. In turn, policies can be derived from the school's philosophy about how health promotion programs should be delivered.

School psychologists can become involved to insure that a school's philosophies, policies, and services include a health promotion component. In addition, school psychologists can consult with other school personnel, serve
as committee members, act as resource persons, conduct in-
services, and become involved in community organizations
related to health promotion issues (Zins & Wagner, 1987).
In the initial stages of health promotion programs, the
primary function of the school psychologist is to provide
consultation services to the students, parents, teachers,
and interdisciplinary team members. Further, school
psychologists often work with and make referrals to various
health-related agencies and professionals. School
psychologists should become familiar with educational
services designed to change risk-taking behaviors in order
to follow through on referral recommendations (Zins &

Instructional Programs: Health Promotion

While there are several health promotion interventions,
Zins and Wagner (1987) suggest a few instructional programs
where a school psychologist can serve as a consultant to
school personnel as they develop these programs in the
classroom. Life Skills Training (LST), developed by Botvin
(1983, 1985; Botvin & Dusenbury, in press cited in Zins &
Wagner, 1987) has been successful in numerous junior and
senior high schools. This intervention is based on the
ideas of social learning (Bandura, 1977 cited in Zins &
Wagner, 1987) and problem behavior theories (Jessor &
Jessor, 1977 cited in Zins & Wagner, 1987), and is meant to
develop mastery in the social skills, self-control, problem-solving, and study skills. LST is divided into three major parts. First, personal skills training deals directly with decision-making and self-enhancement. The next part addresses peer pressure and the consequences of risk-taking behaviors. The final component of LST is social skills training which gives attention to communication skills, shyness, social contacts, and assertiveness skills. Further empirical research supporting LST can be found in Botvin and Dusenbury (in press cited in Zins & Wagner, 1987).

Another psychoeducational tool is Health Is Basic (Educational Development Corporation, 1983 cited in Zins & Wagner, 1987) which includes a curriculum for 16 health-related modules. The goal of the program is to empower students to develop ways to improve their health by expanding their knowledge, sensitivity, and comprehension of health-related behaviors. In addition, Health Is Basic provides teachers with specific strategies and techniques for each module, however, Zins and Wagner (1987) do not provide any research support for this program.

Instructional media programs which are recommended include Inside/Out (National Instructional Television Center, 1973 cited in Zins & Wagner, 1987), Self-Incorporated (Agency for Instructional Television, 1980 cited in Zins & Wagner, 1987), and On The Level (Agency for
Instructional Television, 1980 cited in Zins & Wagner, 1987). *Inside/Out* helps students learn to understand their feelings, deal with peer pressure, and understand safety risks. *Self-Incorporated* empowers students in decision-making, heterosexual relationships, pressures in life, and communication skills. Further, *On The Level* can be used to help students deal with conflict, develop self-concepts, cope with stress, and handle love and friendships (Zins & Wagner, 1987).

Each of these health promotion programs concentrate on several combined aspects. In all, the programs consider the determinants of certain health-related behaviors, the importance of modeling healthy behaviors, peer and media influences, reducing negative social influences, and encouraging positive influences. However, Zins and Wagner (1987) do not provide any research support for these aspects of health promotion programs.

**PROGRAM EVALUATION**

In the early stages of school-based AIDS education programs, there are many unanswered questions related to program effectiveness. Questions stated by Quackenbush et al. (1988) include:

"Do these programs increase student knowledge about AIDS, its transmission, and high-risk behaviors? Do they alleviate fears and discount myths about AIDS? Do they change student perceptions about susceptibility to the AIDS virus? Do they affect student attitudes about people with AIDS? Will they reduce the spread of AIDS"
Program evaluation is a useful means for finding answers to these questions and discovering if newly-developed and existing AIDS education programs are actually doing what they were designed to do. Simple, cautiously designed evaluation can produce significant information that can be used in making decisions about future program directions. Quackenbush et al. (1988) believe that program evaluation can be the initial route through which educators learn whether or not programs are working. Further, what educators learn through evaluations of their school AIDS education programs will enable them to increase what students learn about AIDS and its transmission and, hopefully, to help students modify behaviors to prevent the spread of the AIDS virus.

Through information gained in program evaluations, educators can direct their AIDS prevention curriculum to the factors that influence the choices adolescents make and provide reinforcement to adolescents to deter their risk behaviors. This knowledge will help further the preventive efforts that are being made to halt the spread of AIDS.

In today's society, AIDS education is exceptionally important. Popham (1993) states,

"Even if it means that educational officials will have to downplay some of their current instructional responsibilities, we owe it to our nation's young people to give them a fighting chance to avoid this
life-shortening disease." (p.562)

SUMMARY

In summary, several opportunities are open to school psychologists to become involved in developing and evaluating AIDS education programs. They can encourage and influence schools to develop programs that support healthy lifestyles, as well as consult with parents and school personnel regarding the implementation of AIDS education programs. Currently, there is the potential for AIDS programs, but it is an area that has practically been untouched by most school psychologists. With several opportunities for role expansion, school psychologists may use effective AIDS education processes to promote the health and well-being of all children.
REFERENCES


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