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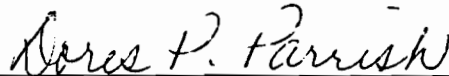
Assessment of the Knowledge and Attitudes of Seventh  
Grade Students Regarding AIDS

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Presented to the faculty of Lycoming College  
in partial fulfillment of the requirements for Departmental Honors in Nursing

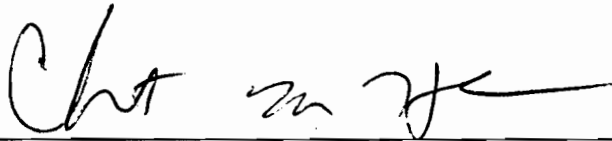
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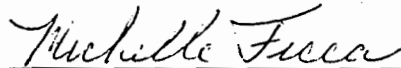
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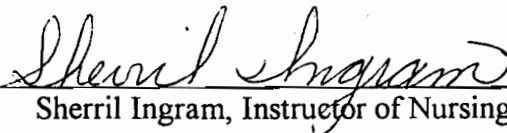
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## Abstract

The purpose of this study was to explore current knowledge and attitudes of seventh grade students in a suburban central Pennsylvania middle school regarding AIDS. The research question was "What are the knowledge and attitudes of seventh grade students regarding AIDS?" An extensive review of literature was completed before the study was implemented. A theoretical framework was established using the Health Belief model (HBM) and Hildegard Peplau's interpersonal nursing theory. A convenience sample of 18 subjects was used with a 50% response rate. Participation was voluntary, a consent form was given to the students, and those that returned the consent form could participate in the study. Students from two seventh grade health classes surveyed were informed of the procedure of the study. The Survey About AIDS for Seventh and Eighth Graders (SASEG), a 57-item self administered questionnaire that included 25 multiple choice knowledge items, a 20 Likert-type attitude scale, and a 10-item demographic survey, was distributed. Students were asked to complete these forms. A  $p$  value of 0.05 was used to determine statistical significance. The Spearman Rank Correlation Test and Mann-Whitney Sum Rank were used to compare the demographic data, knowledge, and attitudes of the seventh grade students regarding AIDS. The test reported that if a student talked with their parents about AIDS then he/she exhibited a more positive attitude regarding AIDS ( $p=0.028$ ). The test also showed that if a child talked with his/her parents about AIDS then he/she learned the most from them ( $p=0.002$ ). Statistically significant results were approached with a  $p$  value of 0.070 and concluded that the more knowledge a person has about AIDS the more positive attitude he/she will have about the disease. According to the Mann-Whitney Sum Rank Test, a  $p$  value of 0.025 existed and showed that having an older sibling would result in a more positive attitude regarding AIDS. In conclusion, this research supports the need for earlier AIDS education. An assessment of the knowledge and attitudes, of school age children and adolescents, regarding AIDS would help to create or update AIDS education programs. The SASEG is a tool that could be used to assess the knowledge and attitudes of the middle school and adolescent population and subsequent educational programs could be developed.

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## Chapter I

### Introduction

The youth of today are the first generation to be born into the age of Acquired Immunodeficiency Syndrome (AIDS). If a current college student had been asked in middle school how he/she thought AIDS would affect his/her life, chances are they would have had no idea what was being asked of them. If that same question was asked to a middle school student today, the answer would probably be quite different. The discovery of the Human Immunodeficiency Virus (HIV) occurred in June of 1980, but the general public remained unaware of the disease for several years (Ungvarski, 1995). Today, one in five AIDS cases are diagnosed in people between the ages of 20 and 29. Because of the long incubation period for the development of AIDS (8 to 12 years), it is projected that at least one-fifth (20%) of AIDS cases probably developed during adolescence (Alteneder, Price, Telljohann, Didion, & Locher, 1992).

There are numerous studies reported in the literature regarding the assessment of AIDS knowledge, attitudes, beliefs, and/or behaviors among the adolescent population, but there is a lack of research about the knowledge and attitudes of middle school students regarding AIDS. A few studies target younger audiences – namely, those in junior high or middle school. Such studies demonstrate varied levels of knowledge, numerous areas of misinformation, and mistaken beliefs about the disease (Carabasi, Greene & Bernt, 1992). The earliest study of adolescents' AIDS knowledge was conducted in 1983. A multitude of studies since then have found significant deficiencies in adolescents' AIDS-related knowledge and beliefs, despite the increase in media exposure and public awareness (Alteneder et al., 1992).

The purpose of this study was to explore current knowledge and attitudes of seventh grade students in a suburban central Pennsylvania middle school regarding AIDS. The students surveyed were enrolled in a suburban middle school of a Central Pennsylvania school district. The dependent variables of this study included attitudes and knowledge regarding AIDS. The independent variable was the grade level of the students. The research question was “What are the knowledge and attitudes of seventh grade students regarding AIDS?”

The study was to assess the knowledge of seventh grade students towards AIDS. The population to be surveyed in the current study was to mirror the population surveyed by Carabasi, Greene, and Bernt in 1990. This was a predominantly white, middle class, suburban middle school.

**Knowledge** was defined as something that is known with a considerable degree of familiarity, gained through experience of contact or association with the individual or thing so known. **Knowledge of seventh grade students about AIDS** was measured by the knowledge scale and score of the Survey about AIDS for Seventh and Eighth Graders (SASEG). **Attitudes** were defined as one’s disposition, opinion, or mental set.

**Attitudes towards AIDS of seventh grade students** were measured by the attitude scale and score of the SASEG. Throughout this study knowledge and attitudes were sometimes viewed as one entity due to the relationship between the two concepts. In the review of literature and research findings this phenomenon occurred since a person’s knowledge appears to be directly related to their attitude of AIDS. **Seventh grade students** were defined as those students enrolled in the corresponding grade level that were willing to be part of the convenience sample surveyed. And finally, since

adolescents have a difficult time determining the distinction between HIV (Human Immunodeficiency Virus) and AIDS (Acquired Immunodeficiency Syndrome).

Therefore, HIV/AIDS was referred to as **AIDS** only since this was easier for the students to understand.

Various limitations existed within this study. A two-semester time constraint posed a limitation for the researcher even with the use of a pilot study from the fall semester. The small sample size was a limitation because significant difference might not have been detected. A limitation may have resulted when only seventh grade students were used as subjects instead of seventh and eighth grade students for which the tool was intended. An incentive, of an extra point on a test grade when a student brought back his/her consent form and completed the survey, could also pose as a limitation in terms of the representativeness of the sample. The fact that the surveyed group was a convenience sample selected by the researcher was limiting when the results could not be generalized outside the population surveyed. The reliability and validity of the tool could have been decreased and resulted in a limitation due to the lack of a scoring method provided by the authors. The inexperience of the researcher was a limitation in itself which contributed to the reliability of the results.

It was assumed that the students voluntarily participated and answered the survey questions honestly. The researcher made the assumption that the participants have some previous knowledge of AIDS and that the surveyed group completed the same AIDS education developed by the school district. It was assumed that the participants had similar social and economic backgrounds since they resided in the same suburban residential area.



Nurses are the individuals who have constant contact with AIDS patients while caring for them in the home, hospital, or nursing home. In the 1980's, family and friends sometimes discriminated against nurses who work with AIDS clients. In 1985, one study showed that 14 states reported instances in which professional nurses refused to care for AIDS patients (Ungvarski, 1995). If education were provided at a younger age, the number of AIDS cases might decrease. This would also affect the nursing community. There would also be a greater understanding of the disease process, its effects, and the demands it creates on the individual with AIDS as well as his caregivers.

Without a cure or vaccine, the only means of AIDS prevention and control is behaviors that will inhibit or decrease the likelihood of viral transmission. Education is a viable vehicle for the acquisition of risk-avoidance/reduction behaviors (Carabasi et al., 1992). In this present study the researchers do not intend to provide any education regarding AIDS transmission or prevention. However, the school in which the survey was conducted could review the research results to enhance their current AIDS education program.

The review of the literature demonstrated that education does not automatically translate into behavior (Hingston, Strunin, & Berlin, 1990). This present research study assesses the needs of the intended learners. This should be considered essential as a preliminary phase in the development of a well-planned AIDS education program. Students and researchers alike have indicated that more education about AIDS is needed and that instruction should begin at an earlier age (Palmer, Boardman, & Bauchner, 1996).

The results of this study will hopefully have an impact on the area school districts by indicating where AIDS education is less than sufficient. It could also benefit nurse educators by providing them with a basis for the design of an AIDS curriculum. Future nursing research could be based on the results of this study. In the long run, AIDS research will affect nursing and the quality of care because nurses will be the ones educating and taking care of AIDS patients. Nurses serve as counselors as they educate and inform the public on the methods of AIDS prevention.

Research has been conducted and documented in the literature regarding AIDS knowledge and attitudes on adolescents, but this research has focused mainly on the older adolescent population. Adolescents are thought to be engaging in sexual activities earlier than ever before. This alone is enough to assess and initiate AIDS education in the junior high or middle school population. A thorough review of the literature concerning AIDS and AIDS education was conducted in order to establish a sound foundation of knowledge for the researcher in this present study and to select a nursing theory on which to base the research itself. This is prescribed in Chapter II.

## Chapter II

The purpose of this study was to explore current knowledge and attitudes of seventh grade students in a suburban central Pennsylvania middle school regarding AIDS. In order to address the research question, a thorough review of pertinent literature was conducted. The researcher noted the absence of literature directly related to the study of the younger adolescent, namely, middle school population. Fortunately, there was sufficient research conducted on AIDS education and the older population from which to review. These articles were reviewed and applied to the current study.

### Review of the Literature

Throughout the literature writers note adolescents are at risk for contracting AIDS. Risk behaviors associated with adolescent status (i.e. sexual activity and, to a lesser extent, intravenous drug use) are the same behaviors that are, in part, associated with the transmission of human immunodeficiency virus (HIV), the cause of AIDS (CDC, 1990). Since there is currently no cure for AIDS, prevention is the key to stop the spread of the disease. In order to decrease the risks of contracting AIDS, education must be a priority. In developing an AIDS education program it is essential to address the educational needs of the students. These needs can be determined by assessing knowledge and attitudes concerning AIDS.

In the state of Pennsylvania instruction regarding HIV/AIDS should be given in the primary, intermediate middle and high school students. The law requires that the school districts follow certain guidelines in their AIDS curriculum. Education materials are determined by the school district and designed to be age appropriate. AIDS instruction should include the natural course of the disease, the lack of a cure, the way the

disease is transmitted, and how infection can be prevented. When sexual activity is discussed in the classroom, abstinence should be stressed as the only reliable way to prevent the disease. School districts can eliminate the topic of the transmission of the disease through sexual activity in the elementary grade levels. The programs should also stress the avoidance of illegal drugs as the only way to prevent the disease in reference to shared needles (Levin, 1997).

Students can be excused from AIDS education, in the state of Pennsylvania, if conflicts with religious beliefs or moral principles exist. A written document must be submitted, by a parent or guardian, in order to verify the contradiction. School districts also need to publicize the AIDS curriculum with an outline and detail of materials. If a student is on home instruction the parent or guardian must obtain the AIDS material through the school office or a parent/teacher conference (Levin, 1997). AIDS education is an important aspect of a child's education and a universal requirement is important. However, the age at which the education occurs and the detail of the material may need to be changed, according to the literature, in order to combat the AIDS epidemic from growing even more.

Most studies have focused on high school students who may be beyond what some consider the ideal age for AIDS education. In order to prevent the occurrence of the disease, education has to be done at an earlier age such as in elementary or middle school. More research must also be conducted on young individuals in order to learn more about their knowledge and attitudes concerning AIDS (Palmer et al., 1996).

In a study by Palmer et al. (1996), middle school students perceived AIDS as more of an adult disease that "anyone can get." They did not see themselves as

vulnerable. Some responses included, “It won’t happen to me, I’m clean,” “If you’re young, you won’t get it,” and “It’s an adult disease” (Palmer et al., 1996, p. 299).

Hoppe, Wells, Wilsdon, Gillmore & Morrison (1994) discovered a high level of AIDS knowledge among students in grades 3 to 6. However, misconceptions were noted, especially at the lower level grades. The researchers have reported that while a good foundation exists, the children could not discuss and apply their knowledge to hypothetical situations. A more factual scope of information and role-playing needs to be provided to children in order to develop a solid foundation.

According to Hingson and Strunin (1992), surveys of adolescents have varied and grown over time. During the mid-1980’s when adolescent surveys about AIDS began, researchers were primarily interested in adolescents’ knowledge of HIV transmission and in identifying the prevalence of sexual and drug use practices that might place them at risk for infection. Shortly thereafter, researchers began to compare the level of HIV knowledge and behavioral practices of different subgroups within the population, for example, male versus female, whites versus Hispanics and blacks, persons in urban versus rural areas and persons at different ages.

Researchers have recently begun to explore the relationship among knowledge, attitudes, and beliefs about AIDS and sexual and drug use behaviors. As a result, psychosocial models and theories such as the health belief model, the theory of reasoned action, problem behavior theory, and social learning theory were explored. Researchers have also begun to explore factors other than beliefs, attitudes, and values about AIDS that may also influence sexual practice and condom use. These other factors may include

alcohol and drug use, beliefs about other sexually transmitted diseases, and pregnancy (Vincenzi & Thiel, 1992).

Research has shown that knowledge does not necessarily result in changes in behavior in adolescents. AIDS education must be conducted before the onset of sexual behavior in order to be most effective in preventing the disease. By not engaging in high risk AIDS behavior elementary school children will benefit most from AIDS education (Player & Frank, 1994). Dolan, Corber, and Zaccour (1990) discovered that children (49% boys and 39.7% girls) believed that AIDS education should begin earlier than seventh grade while 95% of children surveyed believed AIDS education should begin by eighth grade.

Research was conducted to determine how much influence the family unit has on AIDS knowledge. Researchers found that health beliefs, attitudes, and knowledge are greatly influenced by the family. Children model their behavior based on that of their parents, at first, subconsciously. Later children identify with their parents' values and attitudes (Player et al., 1994). School age children and adolescents need more detailed information about procedure and illness. At age 10, children begin to understand the basic cause of the illness. The complexity of the disease process is not understood until age 12 or 13. By adolescence, children begin to comprehend multiple causes, physiological processes and malfunctions of an illness. Therefore, children between the ages of 10 to 12 years old are at the optimal stage to comprehend the cause and effect of AIDS. They should begin to connect blood transfusion, sexual contact, and drug use with the development of AIDS and how it effects the body. However, education and knowledge does not automatically translate into behavioral changes (Player et al., 1994).

In a recent statistical report, 13 to 29 year old people accounted for 18.3% of all AIDS cases. Fifty percent of girls and sixty percent of boys between the ages of 15 and 19 years old are sexually active (Palmer et al., 1996). Due to long latency periods between infection and development of symptoms, many of these 13 to 29 year old AIDS victims were probably infected in their teenage years as a result of high-risk behavior. Sexual intercourse rarely starts before the age of 14 years old. Weinstein, Rosen, and Atwood (1991) found that the average age an individual learned about AIDS was 15.5 years. At that point, 22% of males and 10% of females, ages 12 to 14, and 44% of males and 40% of females, ages 15 to 17, have already had their first experience with intercourse. Gilbert (1994) concluded that if sex is experienced earlier, boys tend to be more sexually active than girls are. Researchers have discovered that the earlier a person becomes sexually active, the greater the chance that they will participate in high-risk sexual activities. It was also discovered that the younger a person started having sexual intercourse, the less likely they were to use a condom (Gilbert, 1994).

Research has shown that families are the primary source of health-related information for young children. Over 50% of children receive answers about AIDS from family members. Therefore, education for the parents about AIDS may be a valuable way to provide information for children. Discussing the importance of HIV and sexual issues with children of various ages is a strategy to prevent the transmission of AIDS (Player et al., 1994).

Carabasi et al. (1992) administered The Survey about AIDS for Seventh and Eighth Graders (SASEG) to middle school students in a predominantly white, suburban,

middle class school. Overall, students were judged to possess reasonably high knowledge levels and generally positive attitudes regarding AIDS, ( $r(410) = .36, p < .01$ ). However, there were several areas of misinformation and unfavorable attitudinal responses. A low positive relationship was found between knowledge and attitudes. It was concluded that a high knowledge level is not necessarily indicative of a positive attitude regarding AIDS patients.

With respect to knowledge scores, females ( $m=17.62$ ) scored significantly higher (i.e., more favorably) than males ( $m=16.52$ ); eighth graders ( $m=17.63$ ) significantly higher than seventh graders ( $m=16.35$ ); and students without older siblings ( $m=18.08$ ) significantly higher than those with older siblings ( $m=16.37$ ). With respect to attitude scores, females ( $m=59.41$ ) scored significantly higher than males ( $m=57.40$ ); and eighth graders ( $m=59.23$ ) scored significantly statistically higher than the seventh graders ( $m=57.30$ ). None of the interaction effects were statistically significant for either dependent variable, ( $p > .30$ ) (Carabasi et al., 1992). Another study by Dolan et al. (1990), reflecting attitudes of students towards AIDS concluded that a majority of students felt that individuals with AIDS should be allowed to stay in school (boys 68.3% and girls 67.5%). However, 29.7% of boys and 21.2% of girls would avoid a friend who had AIDS.

The Center for Disease Control claims that targeting AIDS education toward the adolescent population is obligatory. School is a nearly universal experience for American youth. More than 47 million students attend elementary and secondary schools (Carabasi et al., 1992). These students are readily accessible and are a captive audience for whom to plan and implement primary AIDS prevention activities.



Several researchers have identified knowledge about how AIDS is transmitted as a specific problem to be studied. Brown, Nassau, and Barrone (1990) found that the seventh graders in their study correctly answered 69% of items testing their knowledge about modes of AIDS transmission. More than 40% of these students incorrectly associated contracting AIDS with kissing or mosquito bites. All in all, AIDS-related attitudes appear to be inconsistent and to vary among students in junior high or middle school.

Studies have identified gaps in adolescents' knowledge and beliefs about AIDS, particularly regarding casual contact and the use of condoms as an HIV preventative strategy for sexually active adolescents (Zimet, Diclement, Lazebnik, Anglin, Ellick, & Williams, 1993). Minority adolescents were less knowledgeable about AIDS and less likely to be aware of the protective value of condoms during sexual intercourse than their white peers.

Two main methods have been used by social scientists to study issues surrounding AIDS: questionnaires and interviews. Little attention has been given to identifying the principle dimensions involved in the lay person's perceptions of AIDS and in developing instruments to assess these (Dockrell & Joffe, 1992). Reliable and valid instruments are needed to explore the factors that affect the likelihood of individuals engaging in risk reducing strategies (Clift, Stears, Legg, Memon, & Ryan, 1990).

Dockrell et al. (1992) decided to combine two approaches, questionnaires and open-ended interviews, in an attempt to expand the understanding of young people's behavior regarding AIDS. The open-ended interview allowed them to tap into the lay person's perceptions of AIDS, while the anonymous, more closed-ended questionnaire

permitted them to collect details of sexual behavior and personal practices. Interestingly, the inconsistency within and between young people's questionnaire and interview accounts can provide an important set of data to extend conclusions. Dockrell et al. (1992) found that the apparent contradictions between the responses to the questionnaires and to interviews could be integrated, leading to a greater understanding of the relationship between knowledge about AIDS and sexual behavior.

Several research studies have been aimed at the assessment of young individuals' knowledge level about AIDS and their attitudes toward the disease. The knowledge level of children about AIDS is improving, but slowly. In a study conducted among 11 to 24 year old individuals, 52% of subjects still believed their information about the disease is lacking. Most young people were aware that HIV is not transmitted from everyday contact with an infected individual, but through sexual contact. However, most children did not recognize the other transmittable factors. Overall, children did not see AIDS as a fatal disease that affects heterosexual people or a disease that could potentially affect themselves (Gilbert, 1994).

Literature has shown that little knowledge about blood donation in relation to AIDS has been addressed with younger children. Individuals have heard about the risk of acquiring AIDS from blood transfusions and have associated this with blood donations as well. In 1987, it was reported that students were less likely to donate blood. Seventy-six percent of individuals questioned believed AIDS could be contracted through blood donations (Gilbert, 1994).

Dolan et al. (1990) discovered that television is a major source of AIDS information for boys (71.4%) and girls (66.3%). Weinstein, Rosen, Atwood (1991)

reported that 80% of children obtain information from television, 77% from newspapers, 69% from school, 32% from friends, 14% from sexual partners, 12% medical doctors, and 5% from religious leaders. When participants were asked whom they openly talk to about AIDS, 70% said with friends, 51% with their mother, 39% with teachers, 37% with sexual partners, and 34% with their fathers. Dolan et al. (1990) found that girls have been known to obtain more information about AIDS from their parents rather than boys. Twenty-one percent of girls named parents as their main source of AIDS information compared to boys at 13.8%.

Educational campaigns have had a positive impact on children's knowledge level of AIDS. However, television and video programs have more appeal to children and are more memorable. Friends also play a vital role in educating children about the disease, more so than their parents. Furthermore, young people are more likely to take notice of information given by healthcare professionals. School nurses have an advantage because they work in the children's environment. Doctors and nurses have the authority and knowledge to stress the importance and seriousness of AIDS. The fear of blood transfusions and donations needs to be decreased and healthcare professionals have the opportunity to do this (Gilbert, 1994).

Weinstein et al. (1991) concluded in their study that many AIDS curricula are outdated, emphasize abstinence, and leave the teaching of more explicit sexual information and prevention to parents. An education program for students should be based on discussion of AIDS that occurs in the classroom and among the students themselves. In order to develop a comprehensive AIDS education program, educators have to learn more about the knowledge, attitudes, and behaviors of students.

The review of literature supports the belief that early education regarding AIDS is crucial to the prevention of high-risk behaviors that could lead to the contraction of the disease. It also supports the fact that assessment of the educational needs of middle school students must be taken into account prior to commencing an educational program. Awareness of the knowledge and attitudes of middle school students is an important precursor in both family and traditional classroom education.

The review of literature has shown the importance of a sound AIDS education program. It has also illustrated a need for the family and health community to be involved in the instruction of the effects of the disease. A theoretical framework is also important in order to understand the relationships and beliefs of the children who are learning about the disease and the adults informing the students.

### Theoretical Framework

The purpose of this study was to explore current knowledge and attitudes of seventh grade students in a suburban central Pennsylvania middle school regarding AIDS in order to determine the AIDS education needs of this particular population. In order to conduct valid nursing research, it must be grounded in nursing theory. Therefore, a theoretical framework is crucial.

Becker's Health Belief Model addresses the relationship between a person's beliefs and behaviors. It provides a way of understanding and predicting how clients will behave in relation to their health and how they will comply with healthcare therapies. Several researchers have employed the Health Belief Model to examine beliefs that are theoretically related to motivations to adopt preventative actions (Gilbert, 1994). One review of health education literature and AIDS risks claims that the Health Belief Model

makes important contributions to explaining the effectiveness of AIDS education (Alteneder et al., 1992). The Health Belief Model helps nurses understand factors influencing clients' perceptions, beliefs, and behaviors. Planned care will most effectively assist clients in maintaining or regaining health and preventing illness (Potter & Perry, 1993).

The researcher of the present study employed the Health Belief Model (HBM) to examine beliefs that are theoretically related to motivations to adopt preventive actions. The components of the HBM are derived from psychological theory that hypothesizes that behavior is a function of two factors: the value an individual places on a goal, in this case, health, and the individual's belief that specific actions will achieve that goal. More specifically, preventive actions are influenced by the individual's belief in personal susceptibility to a disease; the belief that the disease will have some impact on functioning; and that preventive actions are "weighed against" perceived barriers or benefits to practicing the preventive action. Barriers and benefits may be social, physical, or psychological in nature. Finally, the HBM proposes that a specific stimulus is often necessary to trigger the decision-making process. This "cue to action" is often conceptualized as educational or mass media messages designed to raise awareness of a health threat (Petosa & Wessinger, 1990).

A strength in using the HBM in assessing educational needs is the direct implications it holds for intervention design. Each component of the HBM is theoretically modifiable using traditional health education strategies. For example, critically examining the modes of transmission and rates of HIV infection in target populations can help students to realistically estimate susceptibility. Using the HBM to

assess AIDS education needs can provide a profile of student beliefs that would be helpful in designing relevant and effective interventions. (Petosa et al., 1990).

The first component in the Health Belief Model involves the individual's perception of susceptibility to an illness (Potter et al., 1993). Palmer et al. (1996) conclude that middle school students perceive AIDS as more of an adult disease. Children did not see themselves as vulnerable. When children were asked to name individuals they knew with AIDS, only adults were named. Children mentioned "friend's mother," "uncle," "my father," as well as public figures.

The second component is the individual's perception of the seriousness of the illness. This perception is influenced and modified by demographic and sociopsychological variables, perceived threats of the illness, and cues to action (for example, mass media campaigns and advice from family, friends, and medical professionals) (Potter et al., 1993). By examining possible relationships between demographics and experiential variables with AIDS knowledge and/or attitudes, AIDS educators can fine tune their interventions to meet specific needs of the intended learners (Caribasi et al., 1992).

The third component is the person's perception of the benefits of taking action and affects the likelihood that a person will take preventative action. Preventative action may include lifestyle changes, increased adherence to medical therapies, or a search for medical advice or treatment (Potter et al., 1993). According to Palmer et al. (1996) middle school students did not perceive prevention as an important issue. These adolescents could not imagine using a condom or being in a situation in which they

would need one. One boys' group felt they would not need condoms until they were "17" or "20" or when "they had been dating for 12 months."

As a result, the nurse needs to step in and educate the patient. He or she can do this through developing a trusting relationship that facilitates learning. Hildegard Peplau is someone who has been able to illustrate how to do build a strong relationship from a nursing perspective.

Hildegard Peplau's interpersonal nursing theory (1952) focuses on the individual, the nurse, and the interactive process; the result is the nurse-client relationship (Potter et al., 1993). According to this theory, the client is an individual with a felt need, and nursing is an interpersonal and therapeutic process. Nursing's goal is to educate the client and family and to help the client reach mature personality development. Therefore, the nurse strives to develop a nurse-client relationship in which the nurse serves a resource person, counselor, and surrogate (Potter et al., 1993).

Peplau has identified several interpersonal nursing roles. These roles may be assumed by the nurse or assigned to others. These roles include the following:

1. *Stranger* – the role assumed by both nurse and patient when they first meet.
2. *Resource person* – provider of health information to a patient who has assumed the role of consumer.
3. *Teacher* – assistant to the patient as learner in order for the patient to grow and learn from experience with the healthcare system.
4. *Leader* – lead the patient who follows to participate in a democratically implemented nursing process.

5. *Surrogate* – assume roles that have been assigned by the patient, based on significant past relationships.
6. *Counselor* – help the patient integrate the facts and feelings associated with an episode of illness into the patient's total life experience (Potter et al., 1993).

Peplau (1986) believed counseling was an important role of the nurse. A one-to-one nurse-patient relationship must be developed for therapeutic communication to occur. Counseling is an important skill for a nurse to develop especially in the school setting. By having a broad background of the illness-health phenomena, the nurse can use her/his clinical judgment to help clients with various issues. School nurses must be fully aware of the issue of AIDS education. With the rising incidence of AIDS in homosexual and heterosexual cases, clients have exhibited a fear of the disease. Students have shown this fear and school nurses need to be available to provide information for the students. The nurse can use her knowledge about AIDS and counseling skills to form a basis of teaching for students.

Peplau (1991) developed the interpersonal theory for nurses to use health teaching to help patients understand the aspects of their health problem through a open nurse-patient relationship. The nurse's knowledge base can have a significant effect on a patient's well being. Through respect, confidentiality, and ethical care, a trusting relationship can develop and teaching can take place. Nurses do not have the power to change behaviors of patients. However, they have the knowledge base to inform their clients and facilitate the potential to change non-therapeutic habits. Nurses have the knowledge about AIDS to share with clients. In doing so they give the client the tools to



make an informed decision and take responsibility with regard to high-risk behaviors that put them at risk for contracting AIDS.

Peplau views the nurse as a counselor. As a counselor the nurse can use the HBM to determine a client's knowledge, beliefs, and perceptions of AIDS. The nurse, acting as a counselor, can judge a child's level of understanding and educate the client about the disease process, modes of transmission, and prevention tactics, at an appropriate level. Through an open nurse-client relationship the nurse can educate the client and family of the seriousness of AIDS.

Health beliefs, attitudes, and knowledge are greatly influenced by the family. Children model their behavior on that of their parents, first, subconsciously imitating them and then by identifying with their styles, attitudes, behavior and values (Player et al., 1994). Research has shown that families are the primary source of health-related information for young children. Education for the parents about AIDS may be a valuable way to provide information for children since 50% of children obtain answers about the disease from family members. A strategy to prevent the transmission of AIDS can include family members, teachers, and health care professionals discussing the importance of AIDS and other sexual issues with children (Player et al., 1994).

Furthermore, young people are more likely to take notice of information given by healthcare professionals. School nurses have an advantage because they work in the children's environment. Doctors and nurses have the authority and knowledge to stress the importance and seriousness of AIDS (Gilbert, 1994).

The seriousness of AIDS has been determined through the review of literature. The theoretical framework as acted as a background to stress the importance of education

and the role of the nurse in that process. The purpose of this research study was to explore current knowledge and attitudes of seventh grade students in a suburban central Pennsylvania middle school regarding AIDS. The tool in which to do this was the SASEG and the methodology will illustrate the use of the instrument.

## Chapter III

### METHODOLOGY

#### Design

The researcher chose a non-selective, descriptive design to study the knowledge and attitudes of seventh grade students regarding AIDS. This design was chosen because it was the intention of the researcher to assess and describe these variables as opposed to comparing them or intervene with a teaching plan and then reassess the subjects.

#### Pilot Study

A pilot study was completed in the fall semester of this year. It was done in order to test the design of the SASEG. The pilot study revealed that the instrument was appropriate. However, the population, the method in which the subjects were obtained, and the procedure in which the survey was conducted needed to be modified.

The convenience sample consisted of 27 students ranging from grades seventh through twelfth from the Alternative Education Program (AED) in a suburban Central Pennsylvania School District. The students enrolled in this program were those that could not function in a typical, mainstream classroom due to disruptive behaviors. The length of enrollment ranged from a few days to several years based on their behavior, performance, and/or improvement. The racial background of the students varied. Students identified themselves as follows: one (1) Asian, eight (8) Black, four (4) Hispanic, twelve (12) White, and two (2) Other. The sample contained 34.6% females and 65.4% males. Ages ranged from 11 to 18 years old.

Students in the AED were asked to complete the Survey about AIDS for Seventh and Eighth Graders (SASEG). The program administrators gave blanket consent for the

enrolled students to take part in the survey. The anonymity of the students was assured by instructing the participants to refrain from putting their names or any other identifying marks on the survey. Students were aware that participation in the survey was completely voluntary and they would in no way be penalized for choosing not to participate.

According to the Mann-Whitney Sum Rank Test, the only aspect of the attitude portion of the study that was statistically significant was the attitudes of females toward AIDS patients ( $p=.049$ ) as compared to attitudes of male students. A Likert type scale measured attitudes ranging from strongly agree to strongly disagree. The females ( $m=17.25$ ) scored significantly higher (more positively) than the males ( $m=11.00$ ) with regard to attitudes toward AIDS. Responses generally indicated positive attitudes toward persons with AIDS. These results directly relate to the original research focus of assessing of attitudes and knowledge of seventh through twelfth grade students.

Knowledge scale scores ranged from 3 to 22 out of a possible 26. The mean for the group was 14.1; the standard deviation, 5.42. Knowledge scores increased significantly with grade level ( $p=.001$ ) according to the Spearman Rank Correlation Test. While there was no statistical significance in knowledge difference ( $p=.958$ ) with regards to sex of the students surveyed, females ( $m=13.67$ ) scored higher than males ( $m=13.41$ ).

As a result of this pilot study, the researcher was able to determine the need to complete the study with the intended sample population of seventh and eighth grade students. The consent of each student needed to be obtained and all participants needed to complete the survey in one classroom at the same time. A need for a period of questions and answers was also determined through this pilot study.

### Procedures, setting, and subjects

The convenience sample consisted of 18 students enrolled in the seventh grade of a suburban central Pennsylvania school district. The racial background of the students varied. Students identified themselves as follows: two (2) Asian, one (1) Hispanic, and fifteen (15) White. The sample contained 78.8% females 22.2% males. Ages ranged from 12 (33.3%) to 13 (66.7%) years old.

Students from the seventh grade class were asked to complete The Survey for Seventh and Eighth Graders about AIDS (SASEG). Consent forms (see Appendix A) were distributed to a total of 36 students, enrolled in two different seventh grade health classes, for students to take part in the survey. A 50% return rate was determined and could be associated with an extra point on a test grade given to the students in one class who brought back their consent form and participated in the research study. The anonymity of the students was assured by instructing the participants to refrain from putting their names or any other identifying marks on the survey. Students were aware that participation in the survey was completely voluntary and they would in no way be penalized for choosing not to participate.

The subjects completed the survey in the gymnasium during their gym class. The information letter (see Appendix B) which stated the purpose, the nature of the study, and listed specific instructions was read aloud, and the researcher assured participants of anonymity. The researcher then read the first question and its four choices to the class and explained that she would be available for questions or clarification. The students were asked to complete the survey honestly and to the best of their ability. The students were then instructed to complete the survey. After all the surveys were collected, the

floor was open for any questions that may have resulted from completion of the survey. The researcher suggested talking with their health teacher or school nurse if any concerns or questions arose after the researcher had left as well.

The Survey about AIDS for Seventh and Eighth Graders (SASEG) consists of a 26-item scale measuring knowledge about AIDS and a 20-item scale measuring attitudes about AIDS. The Knowledge scale uses a four-distracter, multiple-choice format; the Attitude scale uses a 5-point Likert scale format with responses ranging from “strongly agree” to “strongly disagree”(see Appendix C).

Subjects were also asked to complete a demographic questionnaire at the close of the survey in order to compile additional needed information. This questionnaire asked respondents to list their age, sex, race, and religion. Students were also asked to report if they had ever learned about AIDS from a school teacher or school nurse, if they knew someone with AIDS, if they had ever talked to either parent about AIDS, if they had any older siblings, where they learned the most about AIDS, and if they had ever completed a survey about AIDS in school before (see Appendix D).

While previous studies have yielded useful findings, many of the instruments used in these studies may have limited the credibility of their findings. In some instances, the instruments were applied either across grade level or across populations without regard to such issues as readability, cognitive complexity, and culture (Carabasi et al.,1992). This particular instrument, the SASEG, was chosen because of the high degree of reliability and validity reported by the author.

Steps taken by the original survey’s author to optimize test validity included the use of a panel of AIDS experts to assure coverage of critical AIDS issues and the

accuracy of AIDS information; consultation with a reading specialist to determine readability for seventh and eighth graders; a pilot test to ascertain clarity, appropriateness, and meaningfulness; and elimination or revision of psychometrically weak items to maximize instrument reliability (Carabasi & Bernt, 1990).

An expert panel reviewed the knowledge scale. This panel possessed composite expertise in the epidemiology of AIDS, health behavior, and the developmental characteristics of school-aged children. Source materials, content, and items were validated for age appropriateness and relevance to the cognitive abilities and affective concerns of seventh and eighth grade students. Items were further screened for medical and scientific accuracy as well as for reading difficulty. The initial item pool covered four major topic areas: (a) pathogenesis (11 items); (b) epidemiology (17 items); (c) treatment (3 items); and (d) prevention (9 items). Topics were further divided into 11 subtopical areas and 38 associated learning objectives (Carabasi et al., 1990).

The final knowledge scale contained 26 items and yielded a KR-20 reliability coefficient of 0.76. All items had difficulty indices ranging from 0.30 to 0.86. The final version of the attitude scale contained 20 items and yielded a Cronbach's alpha of 0.88. One item covering each of 17 attitudinal indicators was included (Carabasi et al., 1990).

A preliminary pool of 54 five-point Likert scale items (1 =strongly disagree; 5 = strongly agree) was generated following procedures similar to those described for the generation of the preliminary knowledge scale item pool. The attitude scale item pool reflected 18 attitudinal indicators. Approximately half of the items represented approach behaviors that reflect positive attitudes towards AIDS, while the remainder portrayed avoidance behaviors indicative of negative attitudes toward the disease. Values for those

behaviors reflecting avoidance were reverse-scored, thus creating a scale whose total score estimated the extent to which one's attitudes about AIDS were positive (Carabasi et al., 1990).

The preliminary version of the SASEG was administered to 152 seventh and eighth graders in a suburban middle school near Philadelphia. A supplemental questionnaire collected data related to demographic variables and background experiences related to AIDS. Students were primarily white (90%) and from middle-class families. The sample contained approximately equal proportions of males (54%) and females (46%) and of seventh (44%) and eighth (56%) students. All academic ability levels were represented.

Items for both scales were retained on the basis of the three criteria: (a) final scores would consist of 20 to 25 items each; (b) selected items would possess discrimination values of .20 or higher (for knowledge scale items, difficulties would range from .20 to .85); and (c) all subtopics and attitude indicators would be covered.

This research will add to the present literature by limiting its scope to include only seventh graders. It also attempts to overcome the limitations of earlier studies by utilizing a methodologically and psychometrically sound instrument to measure knowledge and attitudes about AIDS in this particular age group. By examining the relationship of several demographic and experimental factors to both attitudes and knowledge about AIDS, the present study will identify specific learning needs of seventh through twelfth graders and will determine what impact, if any, various sources of AIDS information have upon AIDS-related knowledge.



### Treatment of Data

The demographic data was coded using numerical values. For the variable age, uncoded data was directly entered into the SPSS program as was the student's grade level. For the variable sex, males were given a (1) and females were given a (2). Race or ethnic group was coded as (1) for Asian, (2) for Black, (3) for Hispanic or Latino, (4) for White, and (5) for Other. Religion was coded by assigning (1) for Catholic, (2) for Protestant, (3) for Jewish or (4) for other. Previous knowledge from a school teacher or school nurse about AIDS and personal acquaintance with someone with AIDS were coded as (1) for yes and (2) for no. Students were asked if they had talked to either parent about AIDS and they answered (1) for no, (2) for once or twice, or (3) more than twice. Having older brothers or sisters was coded (1) for yes and (2) for no. The students' best source of knowledge concerning AIDS was coded (1) for books, (2) for brothers or sisters, (3) for friends, (4) for medical doctors, (5) for newspapers or magazines, (6) for parents, (7) for radio, (8) for teacher or nurse or guest speaker at school, (9) for television, and (10) for other places or people not listed here. Finally, previous completion of an in-school AIDS survey was coded as (1) for yes and (2) for no.

The results of the SASEG were directly entered into an SPSS data file being compiled by the researcher. There were a total of 57 statements. The subject is then asked to choose from strongly agrees, agree, no sure, disagree, and strongly disagree. For each statement strongly agree was coded as (1), agree as (2), not sure as (3), disagree as (4) or strongly disagree as (5). The majority of the attitude questions were reverse coded and were determined as such based on the wording of the statements. The assessment of the results was based on subjects having a more positive or negative response. If a student

answered SD (strongly disagree) to question 27 (I would not sit next to someone with AIDS), of the attitude scale, he/she would be viewed as having a more positive attitude towards AIDS. On the other hand, if a student answer SA (strongly agree) to the same question he/she would be viewed as having a more negative attitude.

Missing data was defined as questions left unanswered in the questionnaire.

Missing data was not coded. Blank spaces were used to represent the missing data in the SPSS program.

The knowledge portion of the survey was divided in to four topical areas: pathogenesis, epidemiology, treatment, and prevention. In the treatment of data, each sub score can be examined separately. Furthermore, a determination of correlation can be investigated to see if one exists between groupings.

A Mann-Whitney test was selected in order to compare two sets of ordinal data. Each subject's demographic information was compared to the overall knowledge and attitude toward AIDS that subject illustrated. This nonparametric test was chosen because the subscores are based on ordinal responses and the data is paired.

A Spearman's rank correlation test was chosen to assess the relationship between knowledge and attitudes of the students surveyed regarding AIDS. This test is used to decide if the relationship between the two variables is significant. The purpose is to decide if an individual's knowledge base has a direct effect on their attitudes toward AIDS. This test was chosen because the variables are ordinal.

## CHAPTER IV

The purpose of this study was to explore current knowledge and attitudes of seventh grade students in a suburban central Pennsylvania middle school regarding AIDS. The study was conducted at a middle school in a central Pennsylvania school district. The results of the research maybe useful in determining the educational needs of the population surveyed.

### Results

The researcher chose to implement the Mann-Whitney Sum Rank Test in order to compare the two sets of ordinal data, specifically attitudes and knowledge. The Spearman Rank Correlation Test was chosen to assess the knowledge and attitudes of the students regarding AIDS. This test compares the relationship between the two variables to decide if an individual's knowledge base has a direct effect on their attitude scores. This test was chosen because the variables are quantitative and discrete. A  $p$  value of 0.05 was used to determine statistically significant findings.

#### Attitude Scale

According to the Mann-Whitney Sum Rank Test, the only aspect of the attitude portion of the study that was statistically significant was the attitudes of subjects with older siblings. The results indicated that if a subject had older siblings then he or she would have a more positive attitude towards AIDS ( $p=0.025$ ) (see Appendix E-1 for statistically significant  $p$  values). A Likert type scale measured attitudes ranging from strongly agree to strongly disagree. The females ( $m=9.82$ ) scored significantly higher

(more positively) than the males ( $m=8.38$ ) with regard to attitudes toward AIDS (see Appendix E-2).

The Spearman Rank Correlation Test determined that “if you talked with your parents about AIDS” then you had a more positive attitude ( $p=0.028$ ). Responses generally indicated positive attitudes toward persons with AIDS. These results directly relate to the original research focus of assessing of attitudes and knowledge of seventh and eight grade students.

Eighty three percent of subjects believed that people with AIDS deserve to be treated as human beings. About 78% surveyed thought that people with AIDS should be allowed to continue with school and they would help a classmate with homework even if they knew he/she had AIDS. Students viewed the following with a positive attitude (72%): if they had a friend who was infected with the AIDS virus, they would go near him/her and they would sit next to someone who had the AIDS virus. However, only 28% of the students surveyed would share a drink with a friend who had AIDS and 33% believed that people should take the AIDS epidemic seriously. Half of the subjects also thought that AIDS education in the schools was a waste of time (see Appendix E-3).

### Knowledge Scale

Knowledge scale scores ranged from 9 to 22 out of a possible 26. A statistically significant relationship ( $p=0.002$ ) was found by using the Spearman Rank Correlation Test, between talking with your parents about AIDS and learning the most from them. Analysis also suggested statistical significance ( $p=.070$ ) in reference to the more knowledge a person has about AIDS, the more positive her/his attitude will be with regard to AIDS. Using the Mann-Whitney test there was no statistically significant

difference in knowledge difference ( $p=.181$ ) in relation to sex of the students surveyed, but females ( $m=10.00$ ) scored higher than males ( $m=7.75$ ) (see Appendix E-4). Three questions were answered with a 100% accuracy. These included; AIDS can infect people of all ethnic groups; blood can pass AIDS from an infected person to another; and AIDS can be found all over the world. Ninety-four percent of the students knew what the term AIDS means, that the virus can be transmitted male to male, female to female, and male to male, and that the main reason research is done is to find a cure or vaccine for the disease. The subjects knew why people needed to learn about AIDS with a 89%. Eighty-three percent of the seventh graders surveyed knew that there is no cure for AIDS, what AIDS hysteria referred to, and believed that people with AIDS deserve to be treated like human beings.

It was informative to also analyze the questions that were most frequently answered incorrectly. Over 56% of the subjects did not know what "casual contact" meant in terms of AIDS transmission, 61% did not know how to reply to the statement that only gay people are at risk for AIDS, and 67% did not know what the chances are of getting AIDS through a blood transmission (see Appendix E-5).

### Demographic Variables

The survey consisted of 18 seventh grade students. There were 4 male respondents (22.2%), 14 female respondents (77.8%) (see Appendix E-6). Ages ranged from twelve (33.3%) to thirteen (66.7%) (see Appendix E-7). The racial background of the students varied. Students identified themselves as follows: two (11.1%) Asian, one (5.6%) Hispanic, 15 (83.3 %) White (see Appendix E-8). Religion consisted of six

(33.3%) Catholic, two (11.1%) Protestant, and nine (50.0%) other, and one student (5.6%) who did not indicate a religion (see Appendix E-9).

Eighteen students (100%) admitted learning about AIDS from a school teacher or school nurse in the past. Four (22.2%) of the respondents admitted to knowing someone with AIDS while 14 (77.8%) did not (see Appendix E-10). Nine (50%) responded to talking with either of their parents about AIDS "once or twice", four (22.2%) responded said that they had spoken with their parents about AIDS more than twice, and five students (27.8%) denied ever speaking with either parent about AIDS (see Appendix E-11). Fourteen students (77.8%) reported having older siblings while four (22.2%) said they had no older siblings. Inspection of frequencies of responses to an item inquiring where students learned most about AIDS indicated that one (5.6%) learned most from books, one (5.6%) from brothers and sisters, two (11.1%) from friends, two (11.1%) from newspapers/magazines, one (5.6%) from parents, six (33.3%) from teachers/nurses/guest speaker at school, one (5.6%) from television, and three (16.7%) indicated that they learned most from other places/people not listed here. One subject did not respond appropriately to this question (see Appendix E-12). Four students (22.2%) claimed to have completed an AIDS survey in school prior to this survey while 14 (77.8%) denied completion of a survey.

When compared to the results of the original study, the results of this current research study in several areas. Due the demographic differences between the two study samples the grade level can not be compared. The current study revealed that females scored significantly higher in attitudinal responses, mirrored the original study (Carabasi et al., 1992). In both studies, findings indicated that the more knowledge one has the

more positive one's attitude regarding AIDS. One interesting finding was the difference in responses when comparing students with older siblings in each study. The original study found that students without older siblings scored significantly higher on the knowledge portion of the scale than those with older siblings ( $m=16.37$ ). The current study found the opposite. Students with older siblings scored higher ( $m=11.00$ ) with regards to knowledge than those without older siblings ( $m=4.25$ ). The current study exhibited statistically significant results ( $p=0.025$ ) with regard to students having a more positive attitude if he/she had an older sibling. However, no statistically significant results were concluded, in reference to knowledge portion of the survey.

Overall, the positive attitudes associated with the treatment of AIDS patients pervade both of the studies. Somewhat predictably, girls were more knowledgeable than boys, as it is common with many health-related topics among teen-aged subjects (Carabasi, Greene & Bernt, 1992). The discussion of the findings presents greater detail and further explanation about the correlation between the knowledge, attitudes and demographics of the sample surveyed. This is presented in Chapter V.

## Chapter V

### Discussion

The purpose of this study was to explore current knowledge and attitudes of seventh grade students in a suburban central Pennsylvania middle school regarding AIDS. The researcher of the present study believes that if AIDS knowledge and attitudes were assessed at a relatively young age, proper education could be implemented at an earlier age, prior to the onset of high-risk behaviors.

The relatively young subjects in this study possessed a considerable amount of knowledge about AIDS in particular areas. Most knew that AIDS was a serious epidemic that did not discriminate on the basis of race or geographical area. They also knew that AIDS victims invariably die, that there is presently no cure and that the virus can be transmitted through blood. As Carabasi et al. (1992) noted in their study, the subjects in the current study correctly answered the "AIDS specific" items of information commonly emphasized in the media and in early school programs. Most of the questions answered incorrectly related to the more generic qualities of infectious disease.

The results regarding attitudes were encouraging. The majority of subjects felt that AIDS patients deserved to be treated as human beings, that it is appropriate for them to attend school, and that it is safe to sit next to them and help them with their homework. Fifty percent did not recognize the serious nature of the disease and the importance of research and education in the schools.

Several features of this study led to some questions of internal validity. The SASEG was written and deemed appropriate for the intended population of seventh and eighth graders. However, only seventh graders were surveyed. Consent forms were



returned more by one health class rather than the other because the teacher gave them an incentive of an extra point on a test. The testing setting could have been a limitation due to the fact that the study was completed in a gymnasium rather than a classroom. Due to the small sample size and the fact that it was a convenient as well, it is impossible to generalize the results of this study beyond the population surveyed. The small sample size also exhibited little significant power in order to detect statistically significant results. However, several positive features of this study did exist. A relatively sophisticated survey instrument was used and the moderator followed the protocol of reading the instructions and providing the students with a common explanation of the survey. The students also benefited from the survey and seemed to have a positive experience with it overall.

Future researchers of this topic should implement several changes if duplicating this study. Pertaining to the demographics, it would have been better to have the subjects fill in his or her religion as opposed to choosing from a list. There was thought to be some confusion among the religion choices. The researcher felt the subjects were misled by the blanket term of "Protestant" to identify Presbyterians, Methodists, Episcopalians, etc. This would account for the high percentage of those who chose "Other" as their religion. With regard to race or ethnic background, at least a category of other should be provided, but it would be even better if a blank line was left for the student to fill in. The question that states, "Have you ever learned about AIDS from a school teacher or school nurse before?" should be split into two separate ones so that the percentages of the nurse and teacher can be evaluated. A larger sample would also increase the chances of compiling significant data.

Results of the present study could be published in nursing research journals, health education journals, a school-nursing journal, or AIDS-related publications. The results could also be presented to area school districts as a catalyst for the assessment of their own AIDS education programs. Oral presentations, posters and informal discussions with school boards could also stress the importance of early AIDS education as a prevention technique. Results of the current study were presented to the Senior Scholars Seminar on April 3, 1998.

The need for AIDS education in the junior/senior high alternative education setting is evident. The content of AIDS programs can be determined by analyzing the knowledge levels of students and determining in what particular areas to focus. Carefully planned programs, with not only in information, but psychosocial content, are necessary to educate the today's youth about AIDS.

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# Appendix A

## Consent Form

My name is Teresa J. Klahre. I am a senior nursing student at Lycoming College. As a part of an honors project, I am conducting a nursing research study. I have chosen to research the knowledge and attitudes concerning Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome (HIV/AIDS) among middle school students.

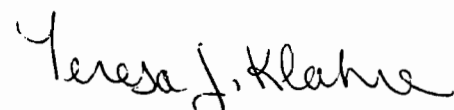
With your permission, your son/daughter will be given a survey asking them to answer several questions regarding their attitudes and knowledge about HIV/AIDS. The knowledge section of the survey is to be answered in a multiple-choice fashion. The attitudes section is to be answered in terms ranging from "strongly agree" to "strongly disagree." The survey will not contain any sexually explicit material. It will simply assess general knowledge and attitudes about the disease and the person afflicted with it.

Participation in this study is strictly voluntary. If at any point the student wishes to withdraw from the study, he/she may do so, without penalty. If a parent/guardian does not want their son/daughter participating in this research study, the student will not be penalized either. Names will be withheld from the answer sheet to protect each student's privacy and anonymity. Directly following the completion of the research survey the students will be able to ask questions of myself or the health teacher, Mrs. Brown. If after this research study the students involved have further questions or concerns the school nurse, Marge Frantz, will be available to discuss any issues that result from the survey.

Data from this study will not be used for any other purpose. Individual student data will not be available to anyone other than the researcher. The results will then be statistically analyzed and incorporated into my research study. The results will help me to better understand what areas need to be stressed upon in order to improve AIDS education and prevention among young people.

This research survey will be taking place Monday, March 30, 1998 between 8:00-9:00am. The consent forms need to be returned at that time, signed by you, in order for your son/daughter to participate. If you, the parent or guardian, or your child has any questions regarding this study, please feel free to contact me at 321-4572.

I thank you for your cooperation.

  
Teresa J. Klahre

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I, the parent/legal guardian of \_\_\_\_\_, have read this consent form and agree to permit my son/daughter to participate in this study.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

# Appendix B

## SURVEY INSTRUCTIONS

RELAX! THIS IS NOT A TEST! However, it is normal to have some apprehension. But the purpose of this survey is to find out what you know and how you feel about Acquired Immunodeficiency Syndrome (AIDS). Your answers will help us to better understand what is needed to be learned about this disease.

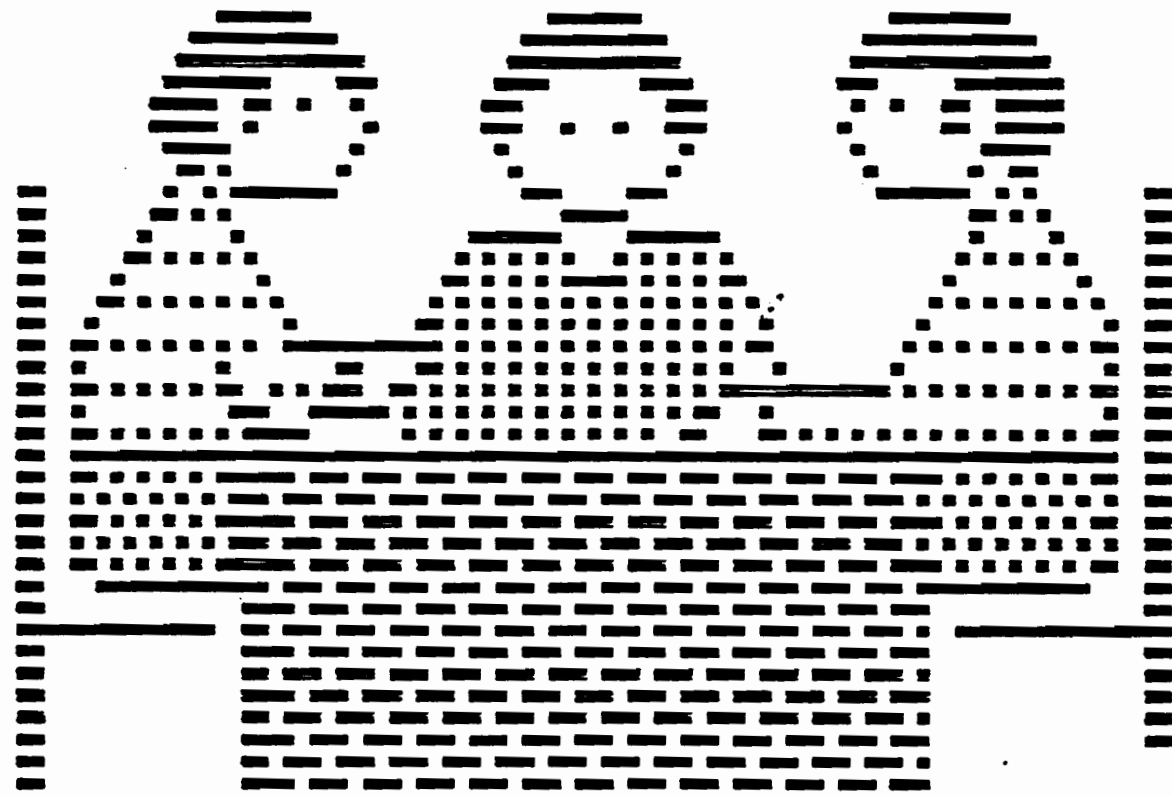
DO NOT WRITE YOUR NAME ON THE SURVEY! We want your answers, but not your name. That is the way your identity will remain anonymous. The way your answers will be kept confidential is that all the answer sheets will be collected in no order. There will be no way to tell one answer sheet from another.

GENERAL INSTRUCTIONS: The three sections of this survey will inquire concerning (1) What you already know about AIDS; (2) how you feel about AIDS; and (3) some general facts about you.

Each numbered question or statement is followed by several answer choices. Read each one carefully, then decide on the best answer. Circle your choice on the answer sheet as directed in each of the three sections. If you make a mistake or wish to change an answer, erase your first answer. Then, circle the answer you have chosen.

After you finish each section, do not stop. Go on until you finish the survey.

# A SURVEY ABOUT AIDS





SECTION I  
WHAT I KNOW ABOUT AIDS

**DIRECTIONS:** Your answers to each of the following questions will give us some idea about your knowledge concerning AIDS. Each question is followed by four possible answers. read each question carefully, then decide on the ONE best answer. (You may not know all the answers. Don't worry. Give it your best shot!) Circle the corresponding letter on the answer sheet next to the question number.

1. What does the term "AIDS" stand for?
  - a. Auto Immune Diseased System
  - b. Affected Incurable Defense State
  - c. Acquired Immune Deficiency Syndrome
  - d. Attained Insusceptible Deficient Symptoms
  
2. Which of the following statements is true about AIDS?
  - a. It is difficult to cure.
  - b. It only makes a few people very sick.
  - c. It is found only among gays and drug addicts.
  - d. It destroys the body's defenses against infections.
  
3. How will a person infected with the AIDS virus probably feel during the virus's incubation period?
  - a. Good, or sometimes like he or she had a case of the flu
  - b. A little sick all of the time
  - c. Very, very sick
  - d. Ready to die
  
4. How long can the AIDS virus stay in the body and not really do anything?
  - a. Several days
  - b. Several weeks
  - c. Several months
  - d. Several years
  
5. What are those diseases called that take advantage of the body when it can't fight them off?
  - a. Acquired
  - b. Contagious
  - c. Advantageous
  - d. Opportunistic

6. What is PCP (pneumocystis carinii)?
  - a. A drug used in the treatment of AIDS
  - b. A skin cancer found among prostitutes
  - c. A psychiatric problem of people with AIDS
  - d. A lung disease that is common among people with AIDS
  
7. What can happen to people who get infected with the AIDS virus?
  - a. They may get AIDS
  - b. They will get AIDS
  - c. They won't get AIDS
  - d. None of the above
  
8. Will someone with AIDS die from this disease?
  - a. Definitely
  - b. Probably
  - c. Hardly ever
  - d. Absolutely not
  
9. Besides the United States, in what other parts of the world can AIDS be found?
  - a. Africa
  - b. Europe
  - c. North America
  - d. All over the world
  
10. What ethnic groups of people can get AIDS?
  - a. All of the following
  - b. Blacks
  - c. Hispanics/Latinos
  - d. Whites
  
11. What is an example of "casual contact"?
  - a. Quickly using a dirty drug needle
  - b. Shaking hands with someone who has AIDS
  - c. Having sexual intercourse with someone you hardly know
  - d. None of the above

12. What are the chances of a student becoming infected with the AIDS virus if he or she just sits next to another student who is infected with the virus?
- No chance
  - Small chance
  - A pretty good chance
  - Will definitely get it
13. In what situation can an exchange of body fluids occur?
- Sweating
  - A kiss on the cheek
  - Swimming in the ocean
  - None of the above
14. Which body fluid is known to allow the AIDS virus to pass from an infected person to another?
- Blood
  - Saliva
  - Sweat
  - Urine
15. How is the AIDS virus transmitted sexually?
- All of the following
  - Males to males
  - Males to females
  - Females to males
16. What are risk behaviors?
- All the kinds of things that teenagers do
  - Things that drug abusers do to kick their habit
  - Actions that increase the chances that a bad thing will happen
  - Certain steps people take to avoid getting infected with the AIDS virus
17. Someone tells you that only gay people can catch the AIDS virus. What would be the correct reply?
- "Wrong? Anyone can catch the AIDS virus at anytime."
  - "Wrong! Anyone who takes certain risks may get infected."
  - "Right! Only gays can become infected with the AIDS virus."
  - "Almost right! You forgot to include drug abusers."

18. What is the cure for AIDS?
- Drugs like AZT
  - Radiation treatment
  - Antibiotics like penicillin
  - No cure at present
19. What is the main reason for all the medical research on AIDS?
- To find out what causes AIDS
  - To find out how people get AIDS
  - To find a cure and vaccine for AIDS
  - To find a cure that's better than the present one
20. What is something that doctors can do to treat people with AIDS?
- Nothing can be done
  - Give certain drugs that help somewhat
  - Give a vaccine so it won't occur again
  - Give blood transfusions to all people with AIDS
21. Why would someone want to know if they are infected with the AIDS virus?
- All of the following
  - They could get medical help
  - They would know to avoid passing it to others
  - They could talk about their worries with a specially trained counselor
22. Someone needs to get a blood transfusion. What should you tell them about blood transfusions and AIDS?
- "Don't worry! Your chances of becoming infected are almost impossible."
  - "Be careful! Only use blood donated by family or friends."
  - "Don't do it! So much blood has been found to be contaminated."
23. Why do people need to learn about AIDS?
- To worry more that they may get it
  - To find out if anyone at school has it
  - To see that AIDS isn't really a problem
  - To know how to avoid coming in contact with it

24. What good advice would you give a friend about condoms?
- a. "Condoms don't really help much against AIDS."
  - b. "Condoms are completely safe against infection."
  - c. "It is safer to use sperm killers than condoms."
  - d. "Not having sex at all is much safer than having sex with a condom."
25. Why do some people have what is called "AIDS hysteria" (people worrying too much about getting AIDS)?
- a. All of the following
  - b. They don't know enough about it
  - c. They see scary stories about it on TV
  - d. They had a personal experience with someone with AIDS
26. How could you learn more about AIDS?
- a. All of the following
  - b. Read newspapers
  - c. Talk to family members
  - d. Ask teachers/school nurse

. . . . . PLEASE GO ON TO THE NEXT SECTION. . . . . .

Section II  
HOW I FEEL ABOUT AIDS

**DIRECTIONS:** Your answers to each of the following statements will give us some idea of your feelings toward AIDS. There are no right or wrong answers! Read each statement carefully and circle next to the corresponding number:

"SA" if you **STRONGLY AGREE** with the statement.

"A" if you **AGREE** with the statement.

"NS" if you are **NOT SURE** how you feel about the statement.

"D" if you **DISAGREE** with the statement.

"SD" if you **STRONGLY DISAGREE** with the statement.

- |     |   |    |   |    |   |    |
|-----|---|----|---|----|---|----|
| 27. | I would not sit next to someone with AIDS.                                    | SA | A | NS | D | SD |
| 28. | People with AIDS should be allowed to continue to go to school.               | SA | A | NS | D | SD |
| 29. | Part of being afraid of getting AIDS has to do with not knowing about it.     | SA | A | NS | D | SD |
| 30. | I would not share my glass of soda with that person.                          | SA | A | NS | D | SD |
| 31. | AIDS education in the school is a waste of time.                              | SA | A | NS | D | SD |
| 32. | People with AIDS deserve to be treated as human beings.                       | SA | A | NS | D | SD |
| 33. | I would help a classmate with homework even though I knew he or she had AIDS. | SA | A | NS | D | SD |
| 34. | AIDS research is necessary and important.                                     | SA | A | NS | D | SD |
| 35. | People should take the AIDS epidemic seriously.                               | SA | A | NS | D | SD |
| 36. | Programs on television that inform people about AIDS are helpful.             | SA | A | NS | D | SD |

37.	AIDS can be controlled if people are willing to do certain things not to get it.	SA	A	NS	D	SD
38.	If a woman knows she has AIDS, she should not get pregnant.	SA	A	NS	D	SD
39.	There should be someone available to people with AIDS who understand their problems and help them.	SA	A	NS	D	SD
40.	More medical help should be given to people with AIDS.	SA	A	NS	D	SD
41.	If I am careful, I will not get AIDS.	SA	A	NS	D	SD
42.	Everyone should have to be tested for the presence of the AIDS virus.	SA	A	NS	D	SD
43.	Too much money is spent on AIDS research.	SA	A	NS	D	SD
44.	If I had a friend who was infected with the AIDS virus, I would not go near him or her.	SA	A	NS	D	SD
45.	I would share my drink with a friend even if I knew he or she had AIDS.	SA	A	NS	D	SD
46.	I feel that there will probably be a cure for AIDS within the next few years.	SA	A	NS	D	SD
47.	There is no one that I can talk to about AIDS.	SA	A	NS	D	SD

# Appendix D

## DEMOGRAPHIC QUESTIONNAIRE

1. How old are you?
2. In what grade are you?
3. What is your sex?
  - a. Male
  - b. Female
4. What is the race or ethnic group that best describes you?
  - a. Asian
  - b. Black
  - c. Hispanic or Latino
  - d. White
5. What is your religion?
  - a. Catholic
  - b. Protestant
  - c. Jewish
  - d. Other
6. Have you ever learned about AIDS from a school teacher or school nurse before?
  - a. Yes
  - b. No
7. Have you ever know someone with AIDS?
  - a. Yes
  - b. No
8. Have you ever talked with either of your parents about AIDS?
  - a. No
  - b. Once or twice
  - c. More than twice
9. Do you have older brothers or sisters?
  - a. Yes
  - b. No



10. From where have you learned the most about AIDS? (choose one only)
- Books
  - Brothers or sisters
  - Friends
  - Medical doctors
  - Newspapers or magazines
  - Parents
  - Radio
  - Teachers or nurse or guest speaker at school
  - Television
  - Other places or people not listed here
11. Did you complete a survey about AIDS in your school before?
- Yes
  - No

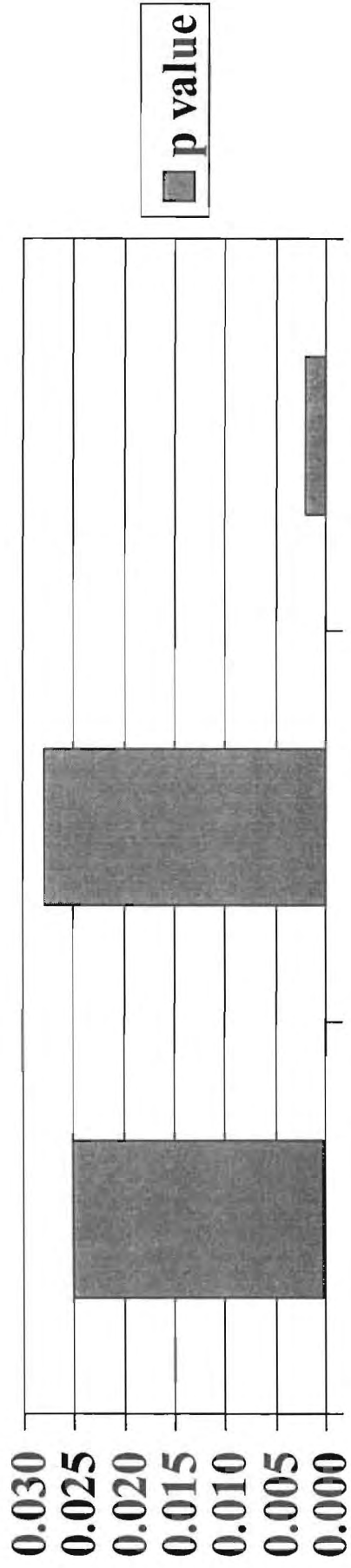
THIS IS THE END!

After completing this survey, you may have some questions or concerns about AIDS. If there is something you don't understand about AIDS, ask your parents, teachers, or school nurse. They can be very helpful by answering your questions or talking with you about your concerns.

(THIS RESEARCHER RECEIVED THE PERMISSION OF THE AUTHOR, JANE CARABASI, ED.D TO USE THIS SURVEY)

# Appendix E-1

## Statistical Significance



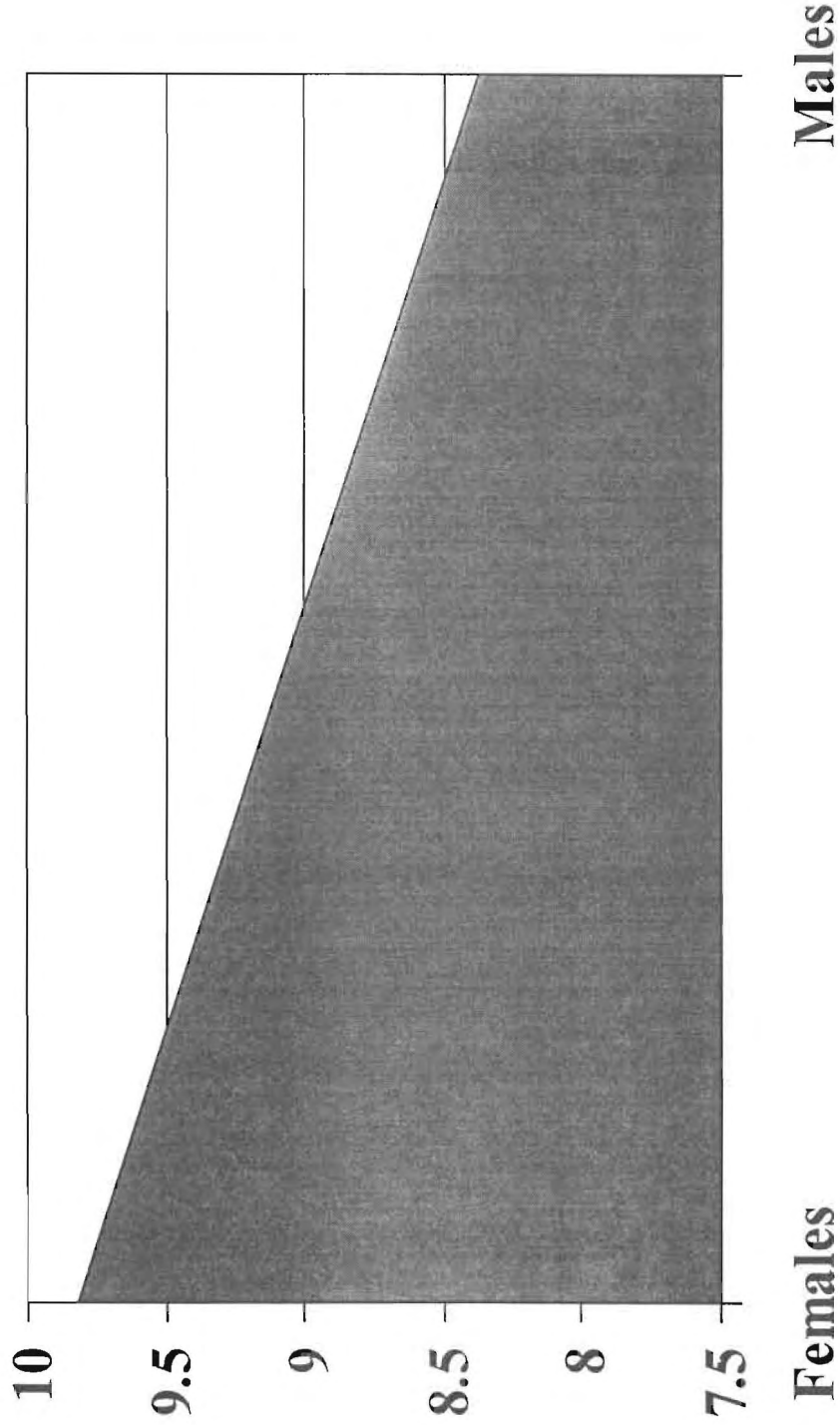
**A person with older siblings will have a more positive attitude towards AIDS**

**A person who talks to his/her parents about AIDS will have a more positive attitude about the disease**

**If a person talks to his/her parents about AIDS then he/she will learn the most from them**

# Appendix E-2 Attitude Scores

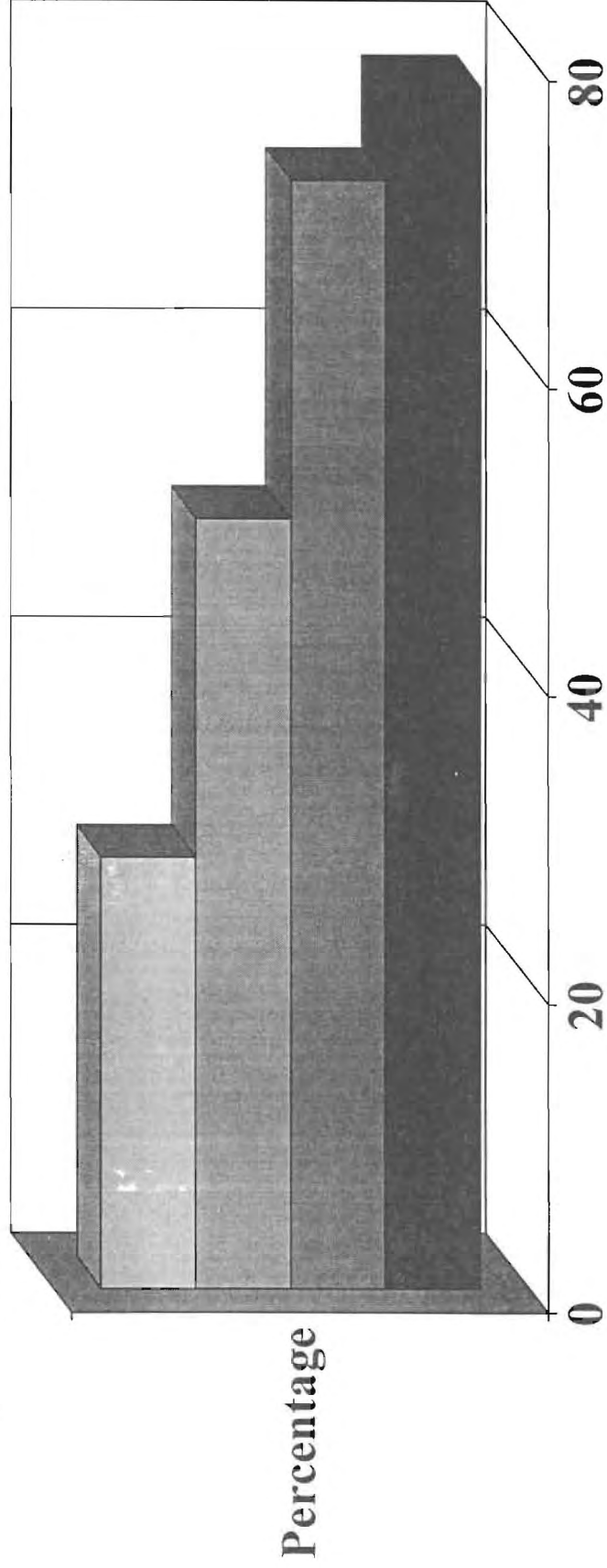
■ Mean Rank



# Appendix E-3

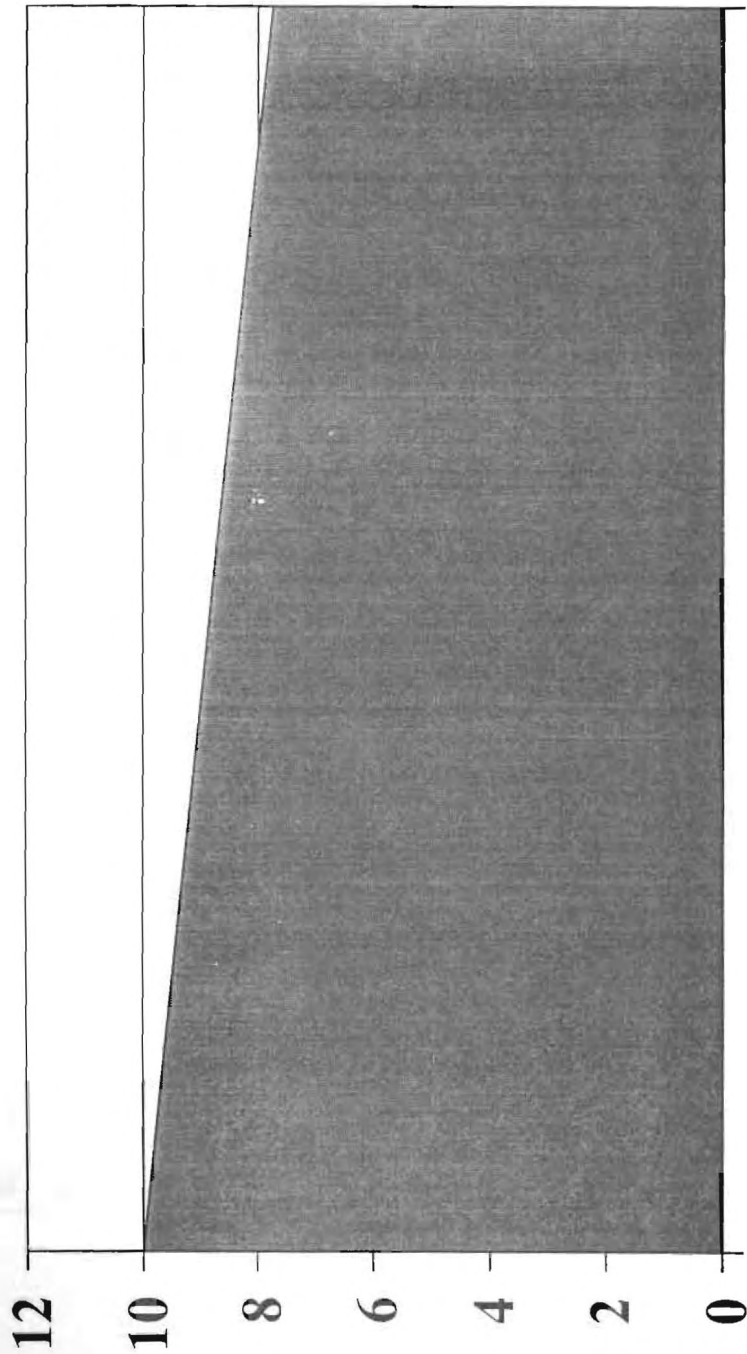
## Attitude Scale Analysis

- I would share a drink with a friend who had AIDS
- AIDS education in the schools is a waste of time
- I would sit next to a someone who had AIDS
- People with AIDS deserve to be treated as human beings



# Appendix E-4 Knowledge Scores

■ Mean Rank



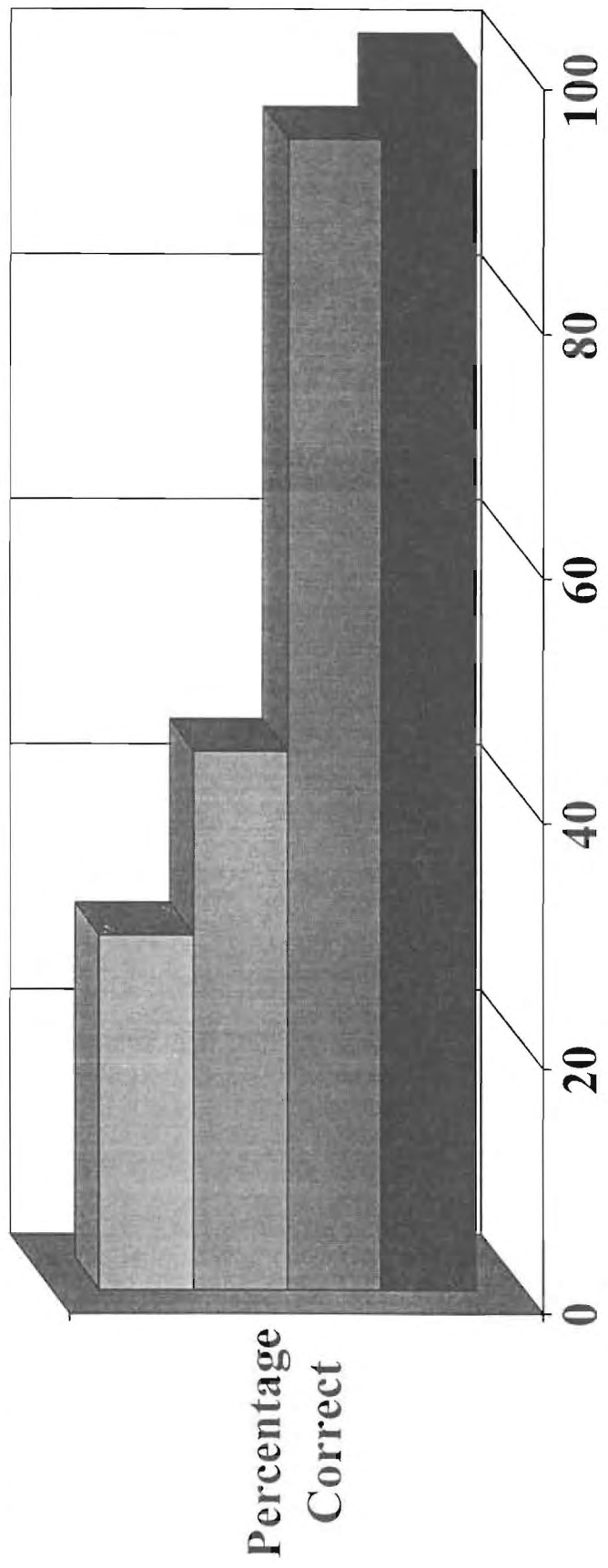
Males

Females

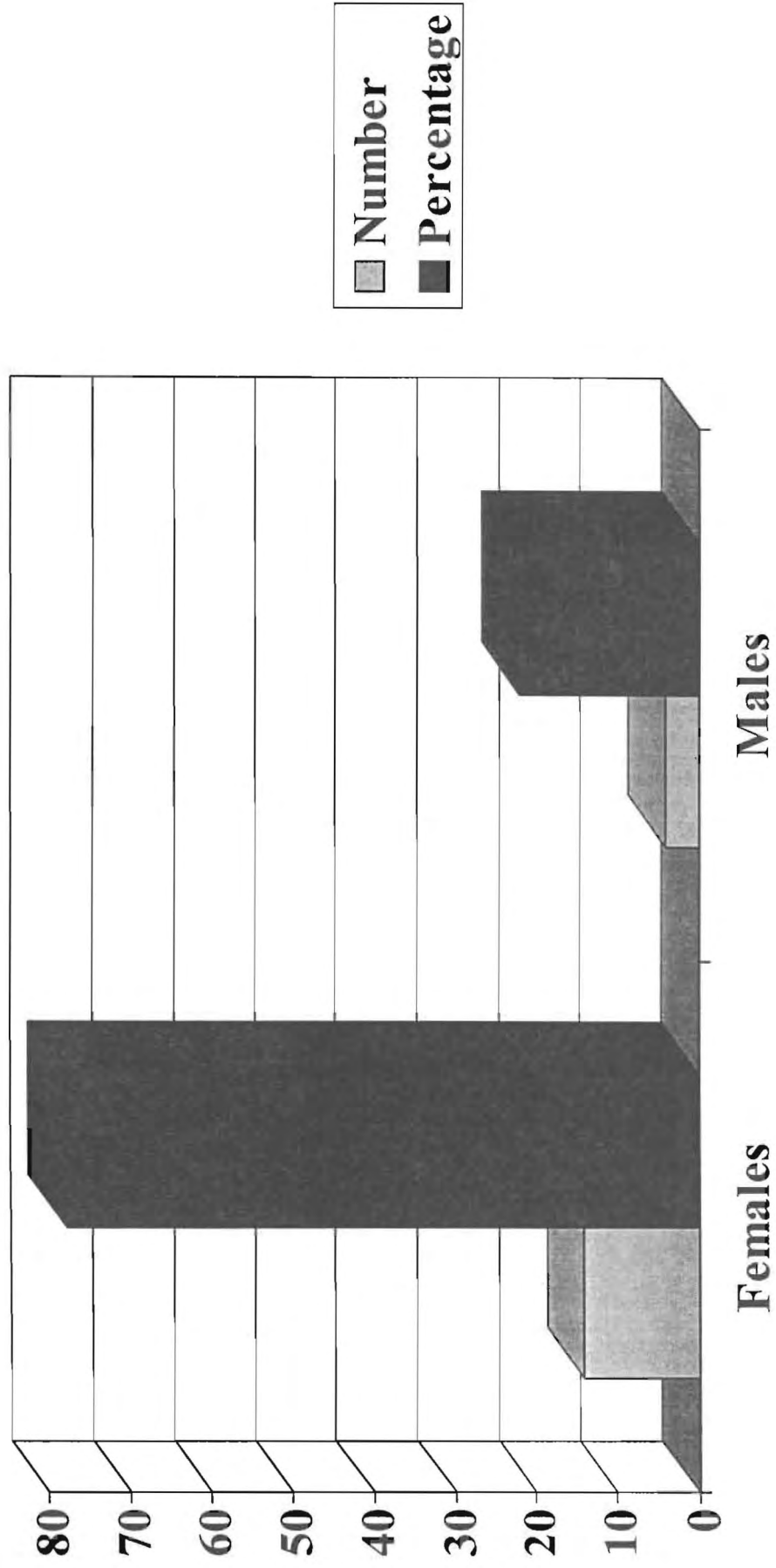
# Appendix E-5

## Knowledge Scale Analysis

- Anyone can get the AIDS virus not just gay people
- The meaning of casual contact
- The main reason AIDS research is done is find a cure or vaccine
- AIDS can infect people of all ethnic backgrounds

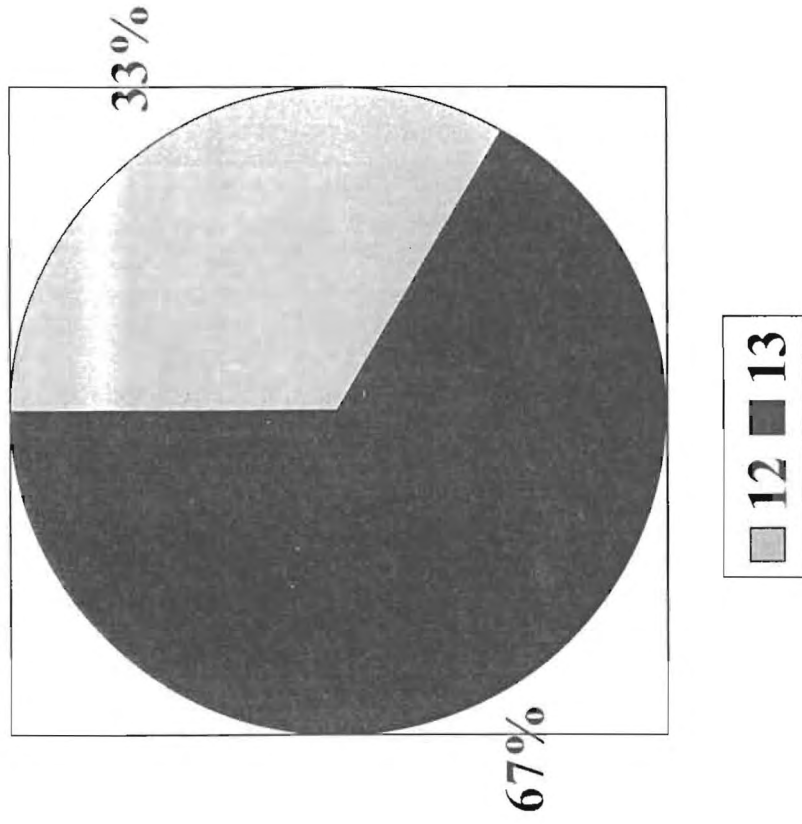


# Appendix E-6 Demographic Data - Sex



# Appendix E-7

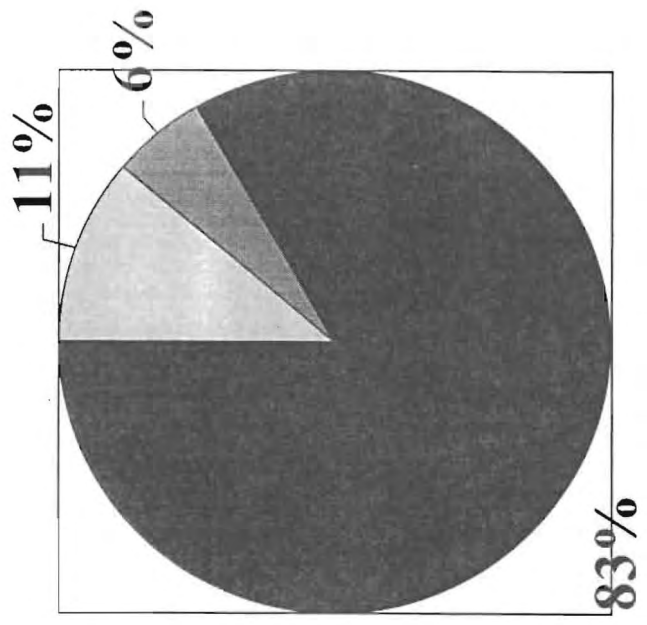
## Demographic Data - Age (in years)



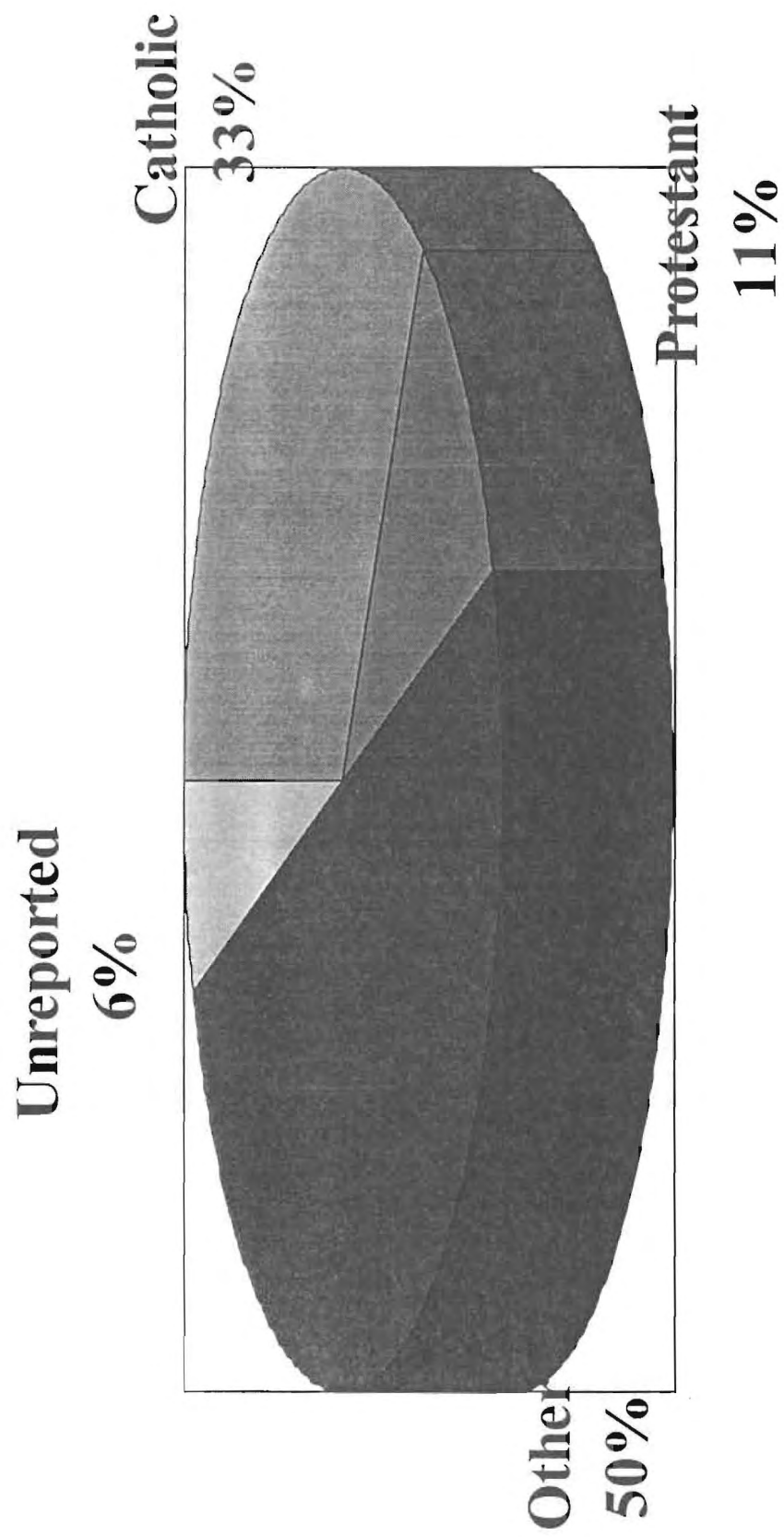


# Appendix E-8

## Demographic Data - Race

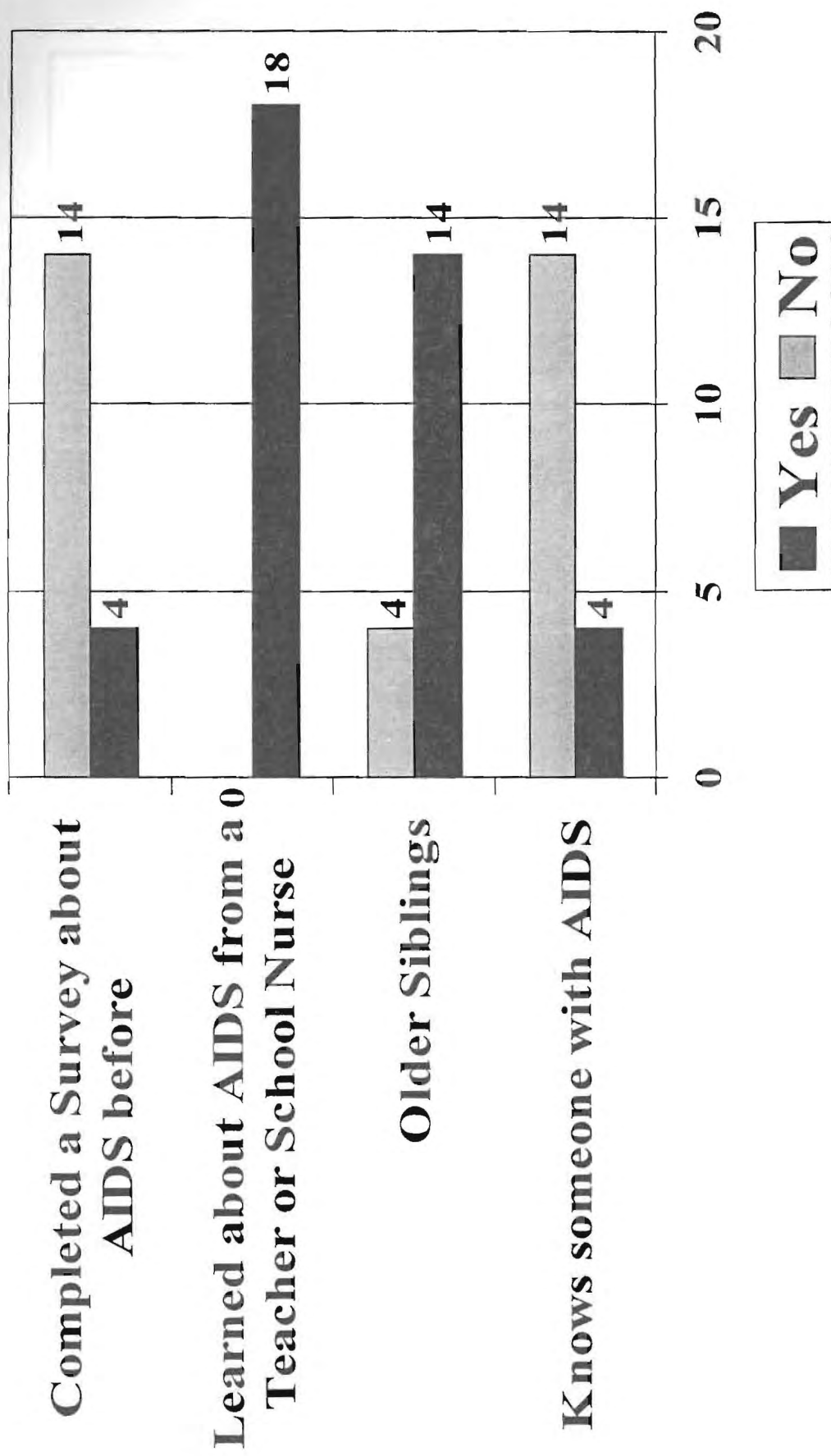


# Appendix E-9 Demographic Data - Religion



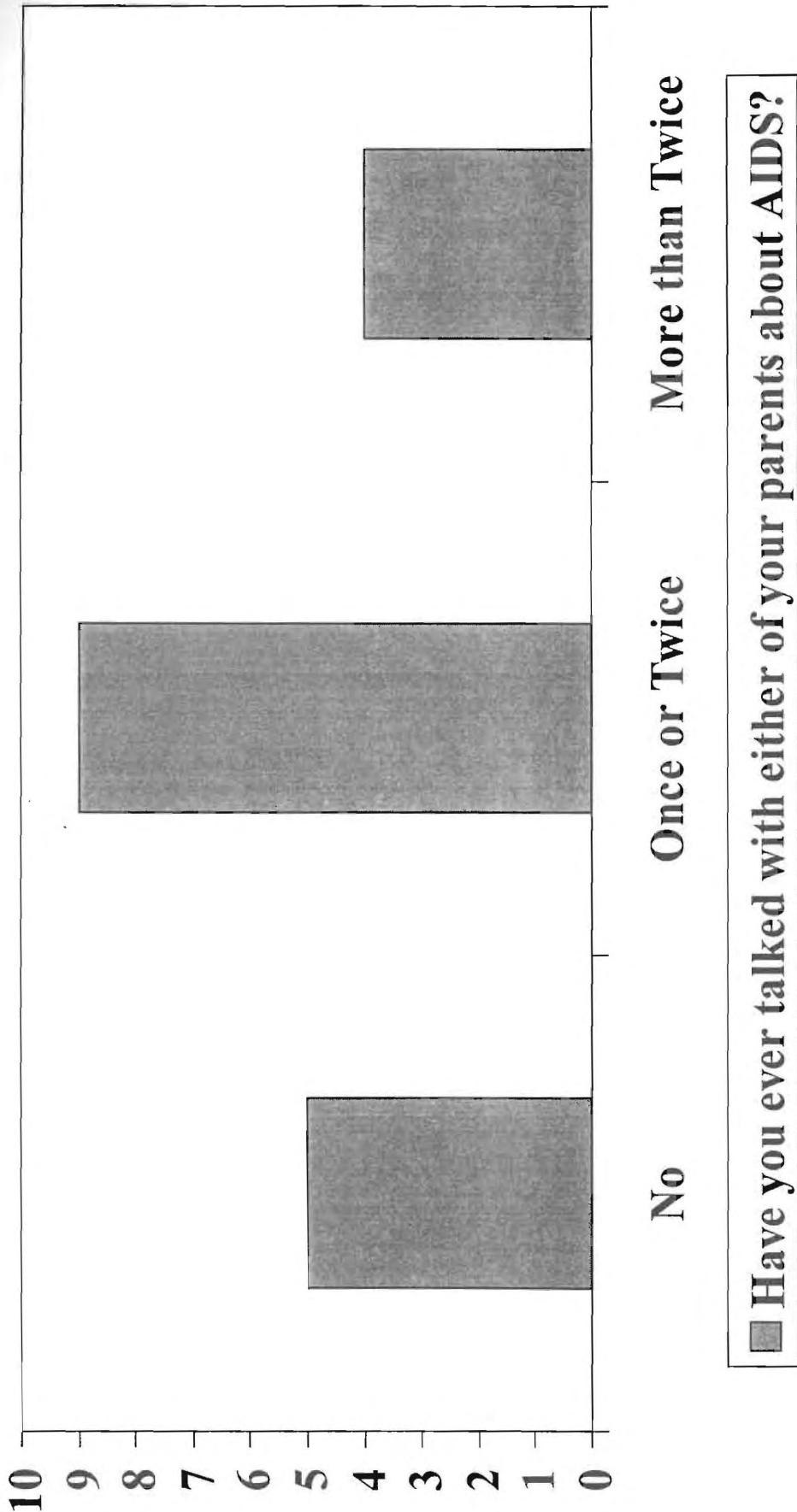
# Appendix E-10

## Demographic Data



# Appendix E-11

## Demographic Data



# Appendix E-12

## Demographic Data

Where have you learned the most about AIDS

