ELEMENTARY SPECIAL EDUCATION TEACHERS' KNOWLEDGE AND ATTITUDES TOWARD HIV/AIDS

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TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

The Centers for Disease Control (1998) surveillance report indicated that the number of persons living with Human Immunodeficiency Virus infection / Acquired Immunodeficency Syndrome (HIV/AIDS) from 1992 to 1997 in the United States (U.S.) has increased. The Department of Health, Republic of China (R.O.C.,1998) reported that the first person in Taiwan found with AIDS was in 1984. By 1996, there were 1102 people with HIV/AIDS in Taiwan. The Department of Health, R.O.C., report also indicated that there is an increase in the number of people with HIV/AIDS under age 20 because of increased sexual activities without protection. Some researchers (Chen, 1990; Chun,1990; & Lin, 1986) showed that almost 50% of high school students in Taiwan did not know how to use condoms and had no idea that condoms can protect them from getting HIV/AIDS.

How to decrease the number of persons with HIV/AIDS, how to prevent the transmission of HIV / AIDS to others, and how to develop new drugs for AIDS patients are worldwide important concerns. Education is one important way to stop the spread of HIV/AIDS. There are many cultural barriers that limit educators from talking about sex education in public. For example, negative attitudes toward teaching sex education in schools were widely reported among parents and teachers 20 years ago in Taiwan (Yen, Ben, Lee, & Lin, 1992). Moreover, there were only two chapters about the maturity of primary sex

characteristics in Taiwan junior high school health education textbooks where students could learn sex education. However, almost all health education teachers chose to omit addressing these two chapters because of Chinese moral and cultural traditions that make it difficult for teacher to talk about sex in front of the students in the past 20 years (Kao, 1986). A few educators raised the issue that the lack of sex education knowledge for youth prevented teenagers from knowing how to protect themselves from sexually transmitted diseases in Taiwan. (Lee, 1979; Lin, 1978). Several researches finding suggested that the number of teen abortions from unprotected sexual behaviors in Taiwan increased because of this lack of sex education knowledge (Chie, 1987; Huang, 1982; Lee, 1979; Lin, 1978).

Statement of Problem

An increasing number of people are found to have HIV/ AIDS in Taiwan. In the last two years, the percentage has increased 29.5% for the age group between 10 to 19 years (Su, 1998).

The prevalence of sexual abuse and HIV/AIDS has created societal concern about how to educate the public about preventative measures. In response to these concerns, school personnel have become increasingly responsible for educating students about sexual abuse, substance abuse, and, most recently, HIV/ AIDS (Prater & Serna, 1993). The problem is even more complex when dealing with students with disabilities. For example, students with mental retardation may have problems generalizing school knowledge to every

day life. It is hard to teach such students to protect themselves in different settings or situations.

The Kaohsiung City in Taiwan (where this study took place) has two million people. Two percent of the population have disabilities and 1.03-% of the population study are in special classes or schools (Lin, 1997). According to these numbers, elementary school special education educators need to be responsible for delivering instruction about HIV/AIDS (Lin , 1997). Since teachers have an effect on their students, teachers' attitudes toward HIV/AIDS could have a powerful impact on their students' attitudes toward HIV/AIDS.

Purpose of Study

The purpose of this study was to examine the knowledge and attitudes toward HIV/AIDS among Kaohsiung City elementary school special education teachers. This study was designed to survey elementary special education teachers' knowledge and attitudes about HIV/AIDS. Educators need to be aware of the knowledge and attitudes that they need to protect themselves and their students from HIV/AIDS. When teachers teach sex/health education or have a student with HIV/AIDS, they need specific, accurate knowledge to educate and appropriately assist their students.

Research Questions

The research questions that guided this study are as follows:

1) What is the special education teachers' knowledge of HIV/AIDS? ;

2) What are the special education teachers' attitudes toward HIV/AIDS education? ;

3) What is the relationship between teachers' educational background and related sex education training to their knowledge and attitudes toward HIV/AIDS? ;

4) What combination of variables best predict special educators' attitudes toward educating children who are HIV positive or who have AIDS?

Definition of Terms

Elementary Special Education Teachers: are operationally defined as special education teachers who teach in special education classes or who have degrees or licenses qualifying them to teach special education classes in Kaohsiung City elementary schools.

AIDS: Acquired Immunodeficency Syndrome. Acquired means a person can catch it; Immune Deficiency means a weakness in the body's system that fights diseases. Syndrome means a group of health problems that make up a disease.

HIV: Human Immunodeficiency Virus infection which usually leads to full-blown AIDS.

Limitations

Two major limitations should be considered when interpreting the results of this study:

1) Elementary special education teachers were randomly selected only from Kaohsiung City Public schools and the results might not generalize to other cities within the country of Taiwan or beyond Taiwan.

2) The majority of the subjects were female because fewer male teachers work as special education teachers in Kaohsiung City. Therefore, the male population was under represented in this study.

Organization of the Study

This study includes an introduction, a review of the literature, a description of the research design method used in the study, the statistical technique used in the analysis of data collected, the results of the study, and discussion and implications.

The introduction, statement of the problem, purpose of the study, definition of terms, significance of the study, and limitations are presented in Chapter One. The review of related research and studies that pertain to this study are presented in the review of the literature section in Chapter Two.

Chapter Three includes a description of the population represented by the subjects, the method of selecting the subjects, and the characteristics of the subjects that are relevant to the study. This section also includes a description of

the instrument, the research design and procedures, and the statistical technique that was used to analyze the data collected.

The Fourth Chapter reports data analysis of this study.

The final chapter, Chapter Five, addresses the discussion of the results and implications for further research.

CHAPTER II

LITERATURE REVIEW

Introduction

The review of literature is organized under the following subheadings: the issue of HIV/AIDS, the importance of HIV/ AIDS education, how teachers' attitudes and knowledge affect HIV/AIDS education, and special education in Taiwan.

The Issue of HIV/AIDS

A Human Immunodeficiency Virus (HIV) causes the disease that develops into Acquired Immunodeficency Syndrom(AIDS). This kind of virus breaks down the body's protection system against infection.

> *"Early in the AIDS epidemic, some signs of a possible relationship between this pathogen and Kaposi's sarcoma had been identified. In a typewritten " protocol " dated May 25, 1982, for the Centers for Disease Control, John Bennett claimed that the new disease was a sexually transmitted viral infection ... by the end of that summer , the appearance of AIDS in hemophiliacs who had received filtered blood products proved that the cause of disease was indeed a virus " (Mirko,1990).*

After 1982 the HIV/AIDS virus spread as fast as wildfire. In the United States, HIV/AIDS is the sixth leading cause of death for people between the ages of 15 to 24 years olds (" Trends in Sexual Risk Behavior," 1998). Seventeen million Africans have died since the AIDS epidemic began in the late 1970s and 12 million children have been orphaned by HIV/AIDS (Tweeten, 2001).

One researcher estimated that , by 1994 , more children will be suffering from mental retardation and brain damage caused by HIV/AIDS (Gray, 1989). The 1999 conference of Western Pacific health officials in Manila reported that more than 1.5 million Asians could be infected with HIV by the year 2000 ("AIDS in Asia," 1999). In the year 2000 the 13th international AIDS conference in South Africa reported that AIDS will claim one-third of 15 year-olds now living in South Africa and seven other countries where the HIV infection rates top 15% ("AIDS Apocalypse," 2000). The researchers stated that the lack of economics, and support of education, prevention, treatment, and care have caused the HIV infection rate to increase in those countries (Leigh, 2000). The researcher stated the chance of being infected with HIV/AIDS through blood transfusion in the US is estimated to be around two cases per million, while in Taiwan the chance is just 0.23 per one million(Chen, 2000).

Some research studies showed that five to seven million people are now living with HIV in Asia and the Pacific and the rate of HIV infections have increased in Asia ("AIDS in Asia," 1999). The 1999 Durex global survey into sexual attitudes and behaviors conducted by Seton Scholl Healthcare Group Plc (1999), questions around 4200 members of both sexes aged between 16 to 21

years old in 14 countries including Taiwan. The results of the survey showed that almost 50% of the Taiwanese participants in this study did not use protection when they had sexual intercourse and the other countries in this global survey only had 28% of the people who did not use protection when they had sexual intercourse (Seton Scholl Healthcare Group Plc.1999). The 2000 Durex global survey showed that the number of Taiwanese who did not use protection when they had sexual intercourse decreased from 50% in the year 1999 to 14% in the year 2000. There were 59% of Taiwanese from age 16 t0 55 who used condoms when they had sexual intercourse in year the 2000 survey (Seton Scholl Healthcare Group Plc. 2000).

More than half (58%) the global population had changed their sexual behavior through concern about contracting HIV/AIDS. The South Africans had made the most significant changes because of HIV/AIDS (86%) in the Global Survey 2000 (Seton Scholl Healthcare Group Plc, 2000).

The Importance of HIV/ AIDS Education

Educating teachers and children is the most effective way to stop HIV/AIDS virus from spreading to children (Wu, Adams, & Schereer, 1990). Schools need to provide their students with direct information about HIV/AIDS (Keogh & Stanton, 1988). However Bowd (1987) indicated that teachers have to teach students about AIDS as well as other academic concepts. Fetter (1989) stated that teachers do not receive appropriate training in their educational coursework regarding HIV/AIDS.

Several law case examples showed that appropriate knowledge of HIV/AIDS is important for special education teachers.

In *Child v. Spillane* (1989), the U.S. Court of Appeals for the Fourth Circuit ruled that a parent who has a child with AIDS sued an elementary school that did not protect their child's privacy because the school made notification to other parents that the school had a child with AIDS. The court found that the notification on the subject made by the school board was general in nature and the district court found that there was no personal identification of the child. According to this law case, educators need to make a notification to parents if there is a child with AIDS in the school. On the other hand, the school has to protect the privacy of a child with AIDS. When a school makes a notification, it has to be general in nature with no personal identification of the child.

Martinez v. School Board of Hillsboro County Fla. (1988), demonstrated to special educators that correct knowledge about the transmission of the HIV/AIDS virus is very important. This case involved the appropriate educational placement of a mentally retarded child infected with HIV. The mother of the child with HIV attempted to enroll her child in a special classroom for trainable mentally handicapped (TMH) children in the public school system of Hillsborough County, Florida, because this child had an I. Q. of 41. According to the recommendation of an interdisciplinary review team, the Hillsborough County School Board decided that the appropriate educational placement for this child was homebound. This child's mother argued that her child should be admitted to the TMH classroom. She contended that the following reasonable

accommodations could reduce the risk of transmission: requiring her child to maintain a distance from other children; assigning a full-time aide to assist with health precautions; placing her child with non-ambulatory TMH students; using disposable diapers and a separate potty chair for toilet training; limiting the number of students in the classroom; and using gloves, disinfectants, and other precautions in handling and disposing of waste materials. The school board argued that homebound placement was proper because the child was incontinent and mouths her fingers. It contended that because many of the mentally handicapped children do not have control over their bodily functions, there is an unacceptable risk of transmission of the HIV/AIDS virus to other children and of transmission of communicable diseases from the other children to this child.

The district court heard extensive expert testimony on the risk of transmission. It found that there was a "remote theoretical possibility" of transmission of the HIV/AIDS virus through tears, saliva, and urine. Therefore, the child was to be educated in the least restrictive environment and receive a free appropriate public education under the Education of the Handicapped Act (EHA,1970). This child also suffered from two handicaps under section 504 of the Rehabilitation Act (1973): she is mentally retarded and has HIV/ AIDS. Each condition falls out in a " physical or mental impairment, which substantially limits one or more major life activities" (Individuals with Disabilities Education Act Regulations,1987). Through this case, the special educators have to keep in mind that the first consideration for special educational placement is the child's special educational needs, not the fact that this child has HIV/AIDS.

How Teachers' Attitudes and Knowledge Affect AIDS Education

An individual develops an attitude from learning and observing others' behaviors that becomes his or her own judgment. Attitude is one of the aspects that psychologists use to explain why people's reactions differ on different stimuli or situations. Attitude is different from other psychological behaviors because an attitude will be shown when the stimuli or object is there. The individual will react differently based on what he or she learned from others (Eagly & Chaiken, 1993).

An investigation by Pang and Watkins (2000) developed a psychological model of teacher-parent communication in Hong Kong Primary schools. Teachers' attitudes and practices are the important factors in school education. This study showed teachers' education level, training and teaching experience all affected teachers' attitudes and behaviors.

A study by Rupard (1999) on the description of teachers' beliefs about students with AIDS stated that the belief which teachers hold have an influence on their perceptions and judgments, then affect their attitudes and behaviors in the classroom. This study found three factors about teachers' belief about students with AIDS. The research named Factor A, nonjudgmental realists; thirty (large number in this study) teachers identified in this factor, which indicated those teachers who had nonjudgmental points of view toward students with AIDS. Thirteen participants loading in factor B, which was named informed guardians. Their belief indicated that, if we educate students through lectures about abstinence and promote responsible decision-making, the students would not participate in activities that could spread AIDS. There were twelve teachers

loading in factor C, which were named accountable pragmatists by the researcher. Participants in this factor believed people with AIDS who engaged in at –risk behaviors must be accountable for the choices they have made and consequences of those choices.

Teachers' attitudes toward their students will be reflected along a continuum of favorability. What teachers' believe will affect their behaviors and attitudes when they teach in their classroom (Hubbard, 1998). In the classroom, the teacher's attitudes tend to result in specific behaviors toward students and these behaviors will stem from the beliefs that comprise the teacher's attitudes. Teachers have a strong influence on their students. Their attitudes toward HIV/AIDS can have a powerful impact on how students perceive HIV/AIDS.

Evans, Melville, and Cass (1992) surveyed special education teachers' knowledge and attitudes toward HIV/AIDS. The subjects were special education teachers who taught in rural and urban areas of southeast Louisiana. The results of the survey indicated that, in the knowledge section, the teachers answered the questions correctly 80% of the time. In the attitude section of survey, 79% of the teachers noted that the students with AIDS should not be segregated into classes for students with health impairments. Wu, et al. (1990) also investigated the knowledge of HIV/AIDS of 359 undergraduate students majoring in education. The result of the study showed the majority of students had limited knowledge about AIDS.

There are increased numbers of studies on teachers' knowledge and attitudes toward HIV/AIDS . The studies examining for teachers' knowledge or

attitudes about HIV/AIDS varied in the number of subjects and countries in which the investigations were conducted. The time period of those studies was from 1988 to 1999. These studies were mostly conducted in the United States and the range of subjects was from 105 to 1500 in the USA. There was one study conducted in Canada in which the subjects were 398 parents and children. Five studies were conducted in the Republic of China (Taiwan) from 1995 to 1998 and the range of subjects from 100 to 679 who are teachers in Taiwan. One study surveyed 1667 subjects in Hong Kong in 1999. As the year progressed, the results of those studies showed more information about HIV/AIDS education. See Table I for specific details.

TABLE I

DESCRIPTIVE SUMMARY OF LITERATURE

Study	Sample	Area	Knowledge about HIV/AIDS	Attitudes Toward HIV/AIDS
Brucker, Martin, & Shhreeve (1988)	**500** teachers attending graduate classes	**7** states in the USA : Washington, Idaho, Oregon, Montana, California, Colorado, and Wyoming.		**75%** teachers agreed public school districts have responsibility to provide the education program for students with HIV/AIDS.
Wu, et al. 1990	**408** undergraduate students enrolled in education courses	Western New York	Average score on the knowledge questionnaire was **75%**	
Brucker & Hall (1991)	**500** teachers	**6** states in the USA: Washington, Idaho, Oregon, Montana, California, Colorado,		**83%** teachers noted students with HIV/AIDS should be integrated into classes.

TABLE I (CONTINUED)

Study	Sample	Area	Knowledge about HIV/AIDS	Attitudes Toward HIV/AIDS
Evans et al. . 1992	**105** special educators enrolled in a graduate course	Southeast Louisiana	**80%** answered correctly in Knowledge about HIV/AIDS section by the teachers	**79%** teachers noted students with HIV/AIDS should be integrated into classes. **92%** teachers wanted more information about HIV/AIDS
Smith, Minden, & Lefevbre 1993	Elementary school children in grades 4-7 : N=243 Parents: N=155	Toronto	Parents were knowledgeable about the most serious risk factors. The younger the children , the less knowledge about AIDS.	**87%** children would stay friends with someone who has AIDS. **85%** of the parents had already discussed the topic of AIDS with their child.

TABLE I (CONTINUED)

Study	Sample	Area	Knowledge about HIV/AIDS	Attitudes Toward HIV/AIDS
Lin, 1995	Surveyed **697** science teachers, 288 were returned.	Iowa	Average correct score on the knowledge questionnaire was **75%.**	**64%** of the science teachers agreed that HIV positive teachers should be issued teaching certificates and students with HIV/AIDS should be allowed to participate in class and school activities.
Brucker & Hall 1996	**1500** teachers were selected from a national pool of 2,000,000 teachers representing all 50 states of the United States, 698 were returned	**50** states of the United States		**83%** of the teachers agreed the school should provide an academic education program for k-12 students who are infected with HIV/AIDS virus. **82%** teachers agreed that all teachers should be required to take an HIV/AIDS education course.

TABLE I (CONTINUED)

Study	Sample	Area	Knowledge about HIV/AIDS	Attitudes Toward HIV/AIDS
Yen, Ben, & Lin, 1996	**513** high school and college teachers collected from each city of Taiwan	Taiwan		**80%** of the teachers agreed that teachers should receive one or two days of training about HIV/AIDS. **64%** of the teachers agreed that students with HIV/AIDS should attend regular class and be involved in school activities.
Adams & Biddle 1997	**88** teachers chosen for this study included kindergarten, and first to third grade classroom teachers and special education teachers. 54 were returned.	Southwest Ohio		**83%** strongly agreed that teachers should be informed if there was an HIV/AIDS infected student in their class. **74%** of the teacher agreed that school districts should take responsibility in educating students, parents, and employees about AIDS and its transmission.

TABLE I (CONTINUED)

Study	Sample	Area	Knowledge about HIV/AIDS	Attitudes Toward HIV/AIDS
Chung & Yen, 1997	**424** teachers who taught elementary school in Tai-Chung City	Tai-Chung City (Central part of Taiwan)		**90%** teachers agreed sex education should be included in the elementary school curriculum.
Kuan, 1998	100 elementary school teachers were selected. 63 were returned.	Tainan City (South part of Taiwan)	Average correct score on the knowledge questionnaire was **76%** .	**50% of the** teachers do not know what to do if a students with HIV/AIDS was in their class.
Davis, Tang, Chan & Noel, 1999	**1,667** Chinese adolescents and 277 Chinese university students	Hong Kong	The Chinese adolescents had the most knowledge in the areas of HIV and AIDS facts (M=1.87, SD=. 76).	The Chinese adolescents had least awareness in the area of attitudes toward HIV and AIDS (M=2.37, SD=.76).

Coomer (1993) studied a case of a child with AIDS in a public school. This study described a school's efforts to integrate a student with AIDS into the school community. This study found that the school's plan succeeded because few people knew the boy's identity, teachers were willing to accept the child as any other person, and people involved in the educational program effectively briefed

staff and parents. Three years later, the child was articulate, hard working, but sick, and the school had received national recognition for its caring approach.

Special Education in Taiwan

A British man, William Campbell, started the first special education school in the south of Taiwan. In 1879, Mr. Campbell, working in Taiwan, established a school for children with hearing impairments(Introduction of Taiwan Special Education, 1999). Since then, special education has been extended from hearing impairments to other areas to include persons who are diagnosed as physically handicapped, mentally retarded, language disordered, emotionally disturbed, and gifted.

The Special Education Act of R.O.C. was passed in 1986. It provided free public education from first grade to Junior high school for students who have special needs. In 1997 the government revised the Special Education Act to increase the provision of free public education from three years old to vocational high school for students who have special needs in Taiwan (Special Education Act of R.O.C. 1997). Therefore, every city and county government had to have a special education department under the school education board, with inclusion, zero rejection, least restrictive environment, and parental participation being the goals for every public school in Taiwan.

There are eleven colleges or universities in Taiwan that have a special education department to provide teacher training and parent counseling. At least three credit hours of special education course work is required for every elementary school teacher.

Special education teachers' preparation programs in Taiwan are mainly provided by the nine teachers' colleges and three normal universities. Those teacher education colleges and universities are funded by the Taiwan government and serve as the primary higher education schools providing education courses and degrees. These schools train general education and special education teachers. In more recent years, the number of students who major in special education range from 150 to 250 in each school, depending on the size of the special education programs in the school. For anyone who wants to teach in elementary or secondary levels, study in these schools resulting in an earned education degree is a necessity. These schools offer degrees of bachelor, master, and doctor degrees in different educational specialization areas.

Before entering undergraduate programs, all high school graduates have to take the national university entrance examination in order to qualify for the required scores to get into teachers' colleges or universities and then choose the major they can study. Students who choose to study in special education must pass the national university exam with relatively high scores (to get into a special education program in a university in Taiwan, one has to get a score higher than 80% of other students) and pass a university entrance interview that is held at each individual university. Once students can study in a special education program, the school provides a full scholarship through their four years of study. Students who major in special education in an undergraduate program have to complete 128-148 credit hours in four years and complete a one-year

internship of student teaching in order to receive a bachelor's degree. After the students receive their bachelor's degree, they must serve as special education teachers in Taiwan for four years (Lee, 2000).

Since 1986, the first special education law (Special Education Act of R.O.C., 1986) published in Taiwan, there has been an increased number of special education service programs in Taiwan's public schools. Teacher colleges and university teacher education systems could not provide enough special education teachers to meet the special education needs in Taiwan public schools. However, alternative certificate teacher education programs have been provided in Taiwan since 1994 (Lee, 2000). College students who graduate from universities with a non-special education related bachelor degree have to take an entrance examination that is held by the individual university in order to determine their qualification for studying in a special education program. First year students have to complete approximately 40 credit hours, then finish their internship in the second year of the program in order to apply for a special education teaching certificate.

There are several reasons for students changing their careers to be special education teachers: first, they are interested in teaching students with a special need; second, teaching is a stable and fairly well paid job in Taiwan; third, teaching is a career with high social value in Taiwanese culture; and, fourth, students with special education teacher's certificates have more opportunities for these teaching positions. General and special education courses required for both traditional and alternative programs are listed in Table II and Table III.

TABLE II

SPECIAL EDUCATION COURSE LIST FOR TRADITIONAL PROGRAM

Required Courses for Special Education Program	
Course Title	Credit Hours
Introduction to Special Education	3
Introduction to Psychology	3
Developmental Psychology	3
Techniques of Behavior Modification	2
Psychological & Educational Statistics	2
Curriculum Development in Special Education	2
Educational Assessment for Exceptional Children	3
Counseling & Consultant for Exceptional Children	2
Study of the Mentally Retarded	2
Life Skill Training	2
Occupational Training for Mentally Retarded	2
Materials & Methods of Teaching Mentally handicapped Students	4
Practicum in Teaching the Mentally Handicapped Students	4
Total	34
Required Courses for Emphasizing in Learning Disabilities	
Introduction to Learning Disabilities	2
Resource Program Planning	2
Teaching Strategies for Learning Disabilities	4
Teaching Materials & Methods for Learning Disabilities	2
Practicum in Teaching Students with Learning Disabilities	2
Total	12
Required Courses for Emphasizing in Giftedness	
Introduction to Giftedness	2
Counseling for Gifted & Talented Students	2
Teaching of Creative Thinking	2
Study of Creativity	2
Teaching Materials & Methods for the Talented & Gifted	4
Practicum in Teaching the Gifted & Talented Students	2
Lesson Plan for Gifted & Talented Students	2
Leadership Training for Gifted & Talented Students	2
Total	18

Note: information of course list was from the National Koahsiung Normal University. Translated by Lee, T. Y. 2000

TABLE III

SPECIAL EDUCATION COURSE LIST FOR ALTERNATIVE PROGRAM

Course Title	
Required Special Education Courses	
Introduction to Special Education	3
Assessment & Evaluation for Exception Children	4
Teaching Design of Special Education	2
Practicum of Teaching	8
Life Skill Training	2
Materials & Methods of Teaching the Mentally Handicapped Students	4
Remediation for Students with Learning Disabilities	2
Teaching Materials & Methods for Learning Disabilities	4
Total	29
Elective Courses for Special Education	
Counseling for Gifted & Talented Students	2
Techniques of Behavioral Modification	2
Language Development & Therapies	2
Perceptual-Motor Training	2
Management of Resource Programs	2
Case Study	2

Note. Students need minimum 40 credit hours for graduation.

Information of course list was from the Taipei City Teacher College.

Translated by Lee, T.Y. 2000

CHAPTER III

METHOD

This chapter includes a detailed description of the method and procedures proposed for this study. Information is provided on the selection of subjects, instrument to be used, research design and procedures, and analysis of data.

Subjects

Taiwan is divided into three basic administrative areas: the municipalities of Taipei, Kaohsiung, and Taiwan Province. Kaohsiung Municipality is situated at the southern end of Taiwan and is a major industrial city and port. There are eighty-six (86) public elementary schools in Kaohsiung City. Every school has at least two special education teachers. There are about eight hundred fifty (850) elementary special education teachers in Kaohsiung City. The researcher randomly selected three hundred fifty subjects (350) from eighty-six public elementary schools with special education programs. About 41% of the population was selected in this study. Three hundred (300) special educators working in Kaohsiung City public elementary schools voluntarily completed a survey about HIV/AIDS for this study. The return rate of this study was about 85%.

Instrumentation

Knowledge and Attitudes toward HIV/ AIDS Questionnaire English Version (KA-AIDS-Q-E) was developed by Evans, et al., in 1992. It was developed from a review of current literature on HIV/AIDS obtained from the Department of Health and Human Services, Public Health Service, and Centers for Disease Control. The HIV/AIDS survey consisted of demographic information and attitudinal and knowledge sections (see Appendix A).

The survey's demographic information about the special education teachers included the participants' age, gender, years of teaching experience in both general and special education, educational background, and hours of training in issues related to HIV/AIDS.

The attitudinal section in KA-AIDS-Q-E contained a total 16 positive and negative statements ordered on a 5-point Likert-type scale from strongly agree (5) to strongly disagree (1). The statements by Evans, et al., (1992) were developed from a current literature review and published surveys from Brucker et al. 1988; Peach & Reddick, 1989; Royse, Dhooper, & Hatch, 1987.

The knowledge section of the survey consisted of 20 true-false statements developed from the AIDS Prevention Guide (1989) in the Evans, et al. study (1992).

Validity of KA-AIDS-Q-E

The face validity of the questionnaire was assessed by professionals knowledgeable about HIV/AIDS and special education graduate students not participating in the Evans, et al. (1992) study.

The construct validity of the KA-AIDS-Q-E was assessed by factor analysis in the Evans, et al (1992) study. The attitudinal responses were factor analyzed using an SPSS factor analysis was run followed by a varimax rotation procedure. Varimax rotation yielded five factors that accounted for 67% of the variance. Based upon inspection of variables loading on each factor, the factors were named integration/segregation, knowledge, willingness to educate, privacy, and testing.

Reliability of KA-AIDS-Q-E

Evans, et al. (1992) used 105 subjects' attitudinal results to analyze the reliability of KA-AIDS-Q-E. The consistency of the teachers' responses was assessed using an SPSS reliability program. An Alpha level of .81 was obtained indicating that teachers were responding in a fairly consistent manner.

Chinese Version of KA-AIDS-Q-E

The researcher translated this English Version survey to a Chinese Version. Several education experts who know both English and Chinese languages very well and completed their doctoral degree major in education in the USA. They were asked to evaluate these two versions of the questionnaire.

Those experts gave the researcher some suggestions for the changes to make on the Chinese Version. The most common suggestion the experts made was that the researcher used the Chinese verb translated " infected", the experts translated back to English as " influence". The experts suggested that the researcher use a medical term close to infect. The researcher changed the verb in Chinese to make it more close to infected. The other suggestion was question number sixteen in the knowledge section. The English version question number sixteen was; " Above ½ of 1% of the U.S. population is infected with AIDS virus." The experts suggested that the researcher change it to the fact of HIV/AIDS about Taiwan's population. The researcher changed question number sixteen in the knowledge section as " About 1102 people were infected with AIDS virus in Taiwan until 1996." The was a recent report in the internet by The Department of Health, R.O.C.(1998). Then the researcher made the final Chinese version of the questionnaire (Appendix B).

Research Design and Procedures

The purpose of this study was to explore Kaohsiung City elementary school special education teachers' attitudes toward and knowledge of HIV/AIDS. The proposed study was a descriptive study using survey methodology.

The survey was mailed to special education teachers in eighty-six elementary schools in Kaohsiung City (Taiwan). Each participant was asked to complete all three sections of the instrument (demographic information, knowledge section, and attitude section). Responses were anonymous. The researcher coded each participant by an individual number. All surveys were

collated using the identification number only, so that names would not appear on any instrument. The completion of the survey required about 20 minutes. After completing the survey, the results were sent to the Kaohsiung City Education Center. The Education Center then mailed this survey back to the researcher in the U.S.

Analysis of Data

Data analysis was conducted in a series of steps. First, the percent correct on knowledge items was used to answer the research question: **1) What do the special education teachers' know about HIV/AIDS?** Second, means, standard deviations, and distribution were examined for attitude Items. This answered the second research question: **2) What are the special education teachers' attitudes toward HIV/AIDS ?** Third, regression analysis procedures were used to determine: **3) What is the relationship of teachers' educational background and related sex education training to teachers' knowledge and attitudes toward HIV/AIDS?**

An F test was performed to test statistical significance of the prediction equations. The statistic R^2 was also examined by an F-test. A t-test was performed on each predictor variable to determine significance. In this step, the teachers' educational background and attendance at sex education training were a set of predictors. The first regression was run for teachers' knowledge about HIV/AIDS as a criterion. A second regression was run for teachers' attitudes toward to HIV/AIDS as a criterion. The last regression was run for teachers' knowledge about HIV/AIDS as a predictor and teachers' attitudes toward

HIV/AIDS as the criterion. The last regression in the third step tried to find out if there is any relationship between teachers' knowledge and attitudes about HIV/AIDS and if the teachers' knowledge predicts teachers' attitudes toward HIV/AIDS.

Finally, the attitudinal responses were factor analyzed using an SPSS factor analysis program. Based upon inspection of the variables loading on each factor, the factors were named (1) integration/segregation, (2) knowledge, (3) willingness to educate, (4) privacy, and (5) testing. The knowledge section true/false test scores and the summed integration/segregation scores for each individual were then entered into a multiple regression model in variables. The research used in this analysis sought to find the answer to the research question: **4) What combination of variables best predicted special educators' attitudes to educate children who are HIV positive or who have AIDS?**

CHAPTER IV

FINDINGS

The purpose of this study was to examine the knowledge and attitudes toward HIV/AIDS among Kaohsiung City (Taiwan) elementary school special education teachers. The teachers' educational background and related sex education training were used to predict teachers' knowledge and attitudes toward HIV/ AIDS education and to find out what combination of variables best predicted special educators' attitudes to educate children who are HIV positive or who have AIDS.

This chapter presents the results of the study beginning with the characteristics of respondents, question a : special education teachers' knowledge about HIV/AIDS and question b: special education teachers' attitudes toward HIV/AIDS education. Next, this chapter presents question c, the predictability of the teachers' knowledge and attitudes about AIDS from sex education training and educational background. Finally, this chapter presents question d, the combination of variables that best predicted special educators' attitudes toward HIV/AIDS. All procedures were completed using the SPSS program for statistical data analysis with an alpha level of .05 used for all statistical tests.

Characteristics of Respondents

Characteristics of respondents in this study were obtained from an analysis of the demographic section of the research instrument which posed questions concerning participants' gender, age, education background, teaching experience, and related training about sex education or HIV/AIDS education. In this study, most of the respondents were females (85%, n=255). Males made up 14.7% (n=44) of the sample. The age of most respondents was between 20 and 30 years old (36%). Other participants were between 31 and 40 years old (29%), 41 to 50 years old (27.7%), and over 51 years old (7.3%) . These data are presented in Table IV and Table V. One subject in Table IV did not report gender.

TABLE IV

GENDER DISTRIBUTION OF RESPONDENTS IN THE SURVEY

Gender	Number	Percent
Female	255	85%
Male	44	14.7%
Missing	1	0.3%
Total	300	100%

TABLE V

AGE DISTRIBUTION OF RESPONDENTS IN THE SURVEY

Age	Number	Percent
20-30 years old	108	36%
31-40 years old	87	29%
41-50 years old	83	27.7%
51 years old or above	22	7.3%
Total	300	100%

Subjects in this study were special education teachers who teach in special education classes or who have degrees or licenses qualifying them to teach special education classes in Kaohsiung City elementary schools. There were 37.3 % (n=112) with no experience teaching in regular education classrooms, 33.4 % subjects (n=100) with one to ten years teaching experience in regular education classrooms, 17.3% (n=52) who taught regular classes between 11 to 20 years, 9.7 % (n=29) with 21 to 30 years experience in the regular education system, and 2.3% (n=7) special education teachers who had taught regular education class between 30 to 45 years. The distribution of teaching with regular education experience is shown in Table VI.

TABLE VI

DISTRIBUTION OF REGULAR EDUCATION TEACHING EXPERIENCES OF RESPONDENTS

Year of teaching regular education	Number	Percent
0 year (no experience)	112	37.3%
1-10 years	100	33.4%
11-20 years	52	17.3%
21-30 years	29	9.7%
31-45 years	7	2.3%
Total	300	

Most special education teachers had taught special education between one to five years (69%, n=207). Participants who had taught special education between 6 to 10 years totaled 51 (17%), 11 to 20 years totaled 34 (n=11.3%), and special education teachers who worked between 21 to 31 years totaled 3 (0.9%). There were 1.7% (n=5) participants with special education teaching degrees or licenses but who had no teaching experience in special education areas. 73.3% of the participants had not attended any sex education or HIV/AIDS education training and 26.7% of the special education teachers had the related sex education training. These data are presented in Table VII and Table VIII.

TABLE VII

TEACHING SPECIAL EDUCATION EXPERIENCE OF RESPONDENTS

Year of teaching special education	Number	Percent
0 year	5	1.7%
1-5 years	207	69%
6-10 years	51	17%
11-20 years	34	11.3%
21-31 years	3	0.9%
Total	300	

TABLE VIII

RELATED TRAINING ABOUT SEX EDUCATION OR HIV/AIDS EDUCATION

Attend sex education or HIV/AIDS education training	Number	Percent
With training	80	26.7%
Without training	220	73.3%

Most of the respondents (43.3%, n=130) graduated from a Teachers' College or Teachers' University majoring in special education. After graduating from a university, 19.7% of the respondents went on to complete 20 hours of special education; 4% took 40 hours of special education course work; 6% took 60 hours of special education course work; 8.7% took regular education classes at a university and then went back to teachers' college for special education

training. 18% of the teachers who teach special education classes had no credit hours in special education. Data is shown in Table IX.

TABLE IX

TEACHERS' EDUCATIONAL BACKGROUND

Teachers' education background	Number	Percent
Teachers' College or University major in Special Education	130	43.3%
After University took 20 hours in SPED	59	19.7%
After University took 40 hours in SPED	12	4.0%
After University took 60 hours in SPED	18	6.0%
After University study major SPED in teachers' college	26	8.7%
College degree without SPED credit hours	51	18%

Question 1: Special Education Teachers' Knowledge about HIV/AIDS

Twenty questions in the knowledge section of the questionnaire were used to assess special education teachers' knowledge about HIV/AIDS. Descriptive analyses of teachers' knowledge about HIV/AIDS are presented in Table X (see p34). Data obtained in the knowledge section of the survey indicated that teachers were knowledgeable about HIV/AIDS. For example, teachers answered an average of 73% of the questions correctly. Ninety-nine percent of the

respondents knew that birth control pills could not protect a person from catching AIDS. 99.3% of the participants knew the correct answer to question two: sharing needles or syringes even once is a way to be infected with the AIDS virus. 98% of the respondents knew that if one touches a person with AIDS one cannot become infected unless they have an open wound. Teachers were less familiar about the blood transfusion question number nine (39.3% correct) and the donating question number twelve (26% correct). The other less familiar question was that it has been documented that AIDS can be transmitted via "French" Kissing (29.7%).

TABLE X

PERCENT CORRECT ON KNOWLEDGE ITEMS

	% Correct Reponses
1. If one takes birth control pills one cannot catch AIDS.	99
2. Sharing needles or syringes, even once is a way to be infected with AIDS virus.	99.3
3. If one touches a person with AIDS one can become infected.	98.3
4. If somebody in my class has AIDS, I (the teacher) and my students are likely to become infected.	65.3
5. If one never uses intravenous drugs and has sexual intercourse only with persons of the opposite sex one cannot get AIDS.	97.3
6. The virus that causes AIDS is called HIV.	93.3
7. One can catch AIDS from toilet seats or other routinely used (fork) objects.	75.7
8. The AIDS virus can be spread by coughs or sneezes.	90.3
9. If one had recent blood transfusion one stands a moderate chance (50/50) of getting AIDS.	39.3
10. It has been documented that AIDS can be transmitted via " French" Kissing.	29.7
11. If one uses a condom one won't get AIDS.	64.3
12. One can get AIDS by donating blood.	26
13. Approximately 2.5 million teenagers are infected with sexually transmitted disease.	77.3
14. AIDS can be transmitted via oral intercourse.	81
15. Use of lambskin condoms as opposed to latex condom decrease the chances of infection with AIDS.	75
16. Above ½ of 1% of the U.S. population is infected with AIDS virus.	88
17. Infected mothers can pass AIDS virus to their babies while breast-feeding.	56.7
18. One can catch AIDS by using the sex toys of others.	75.7
19. On average an AIDS victim dies about 2 years after the symptoms first appear.	55
20. A significant number of people infected by AIDS virus are teenagers.	79.7

Note: Mean % Correct=73 (for correct answers see Appendix A)

Question 2: Special Education Teachers' Attitudes Toward HIV/AIDS

The results of special education teachers' attitudes toward HIV/AIDS are presented in Table XI. Over half of the special education teachers disagreed that students with the AIDS virus should not be allowed to attend public school (42 % strongly disagree, 30.7% disagree). Students with the AIDS virus should not be able to participate in physical education (52% strong disagree, 25.7% disagree) and contact sports (55.3% of respondents disagreed on all levels). Analyses of attitudinal responses reveals that 91% of the teachers wanted to learn more about HIV/AIDS, and 91% would teach students who test positive for HIV/AIDS following a training program on AIDS. Eighty-four percent of the respondents indicated that it is the teachers' responsibility to teach their students about AIDS. Sixty-eight percent of the teacher noted that students should not be segregated into classes for students with health impairments. 49.7% of the respondents agreed that teachers should tell their students that one of their peers has the AIDS virus and agreed that students with the AIDS virus should be able to eat lunch with their classmates (48.3%) . 70.3% of the teachers would hesitate to give CPR (mouth to mouth) plus heart compression to a student infected with the AIDS virus.

Table XI

Mean, Standard Deviation, and Distribution for Attitude Items

			Percent of Responses				
	$\bar{X}$	SD	SA	A	U	D	DS
1. students with AIDS virus should not be allowed to attend public school.	2.0	1.1	2.7	13.3	11.3	30.7	42
2. Students with the AIDS virus should not be able to participate in PE.	1.8	1.0	1.7	7.0	13.0	25.7	52.7
3. Students with the AIDS virus should not be able to participate in contact sports.	2.7	1.4	14.3	19.7	10.7	29.0	26.3
4. Students with the AIDS virus should be segregated into classes for the other healtb impaired.	2.2	1.3	8.3	14.3	9.3	26.7	41.3
5. Students with the AIDS virus should be able eat lunch in the cafeteria with their classmates.	3.8	1.3	36.3	32.0	12.3	11.7	7.7
6. Students with the AIDS virus should be place in a regular classroom but segregated from the other students.	2.2	1.1	3.7	14.7	11.3	40.0	30.3
7. Students with AIDS virus should be able to work in fast food places.	2.6	1.4	13.7	13.7	19.0	25.3	28.3
8. Teachers should tell their students that one of their peers has the AIDS virus.	3.2	1.5	24.7	25.0	9.3	23.3	17.7
9. It is teachers' responsibility to teach their students about AIDS.	4.3	1.1	63.0	21.0	2.7	10.3	3.0
10. Teachers would teach their students about AIDS if they had the necessary training.	4.5	0.9	66.3	24.7	2.3	5.7	1.0
11. Teachers should not be required to work with students with the AIDS virus.	2.5	1.2	4.7	22.0	18.0	28.7	26.7
12. Mandatory testing of students (K-2) for the AIDS virus should be required for all students.	3.2	1.4	24.3	17.7	17.3	30.3	10.3
13. I would not hesitate to give CPR (mouth to mouth) plus heart compression to a student infected with AIDS virus.	2.1	1.1	4.3	8.7	16.7	33.0	37.3
14. Overall, I think I am well informed about AIDS.	2.4	1.1	4.3	14.7	18.7	40.7	21.7
15. Overall, my formal training about AIDS is sufficient.	1.8	1.0	1.7	5.0	13.0	34.0	46.3
16. I am interested in learning about AIDS.	4.4	0.9	53.7	37.3	3.3	4.3	1.3

Note: SA/A= Strongly agree/ Agree; U= Undecided; D/DS = Disagree/ Strongly Disagree

Question 3: The Relationship Of The Teachers' Knowledge And Attitudes About HIV/AIDS

Knowledge

HIV/AIDS education has been raised as an important issue in Taiwan because of the increased numbers of people infected by HIV/AIDS (Huang, 1982). However, the researcher was interested in predicting the teachers' knowledge about HIV/AIDS from sex education training and educational background. A regression analysis was conducted to find out: What is the relationship between the teachers' educational background and sex education training about HIV/AIDS and the teachers' knowledge toward HIV/AIDS? and Is sex education training or the teachers' educational background about HIV/AIDS more useful in predicting a teacher's knowledge about HIV/AIDS?

The means, standard deviations, and bivariate correlation between variables of interest are presented in Table XII. As shown there, Pearson coefficients were positive for sex education training and teachers' knowledge about HIV/AIDS and negative for teachers' education background & teachers' knowledge about HIV/AIDS. Sex education training & teachers' knowledge about HIV/AIDS reached statistical significance at the .01 level. About 0.1% of the variability was shared by both teachers' educational background and sex education training. Approximately 4.2% of the variance in teachers' knowledge about HIV/AIDS is predicted by teachers' educational background and sex

education training, and it is statistically significant (Fobs=6.501> Fcv[2, ∞]=3.00; p<.05)

It was determined that both the teachers' educational background and their sex education training were necessary in predicting their knowledge about HIV/AIDS. However, sex education training (β= 0.203) was a stronger predictor of teachers' knowledge about HIV/AIDS than their educational background (β=-0.017) (see Table XIII).

TABLE XII

DESCRIPTIVE STATISTICS FOR TEACHERS' INFORMATION

	Knowledge	Educational background	Sex education training
Knowledge	Y= 14.67 SD=2.04	-.024	.204**
Educational Background		X_1=3.12 SD=1.80	-.035
Sex education training			X_2=1.27 SD=0.44

N=300 ** correlation is significant at 0.01 level (2-tailed)

Note: Means (Y, X_1, X_2) and standard deviations (SD) are on the diagonal. Bivariate correlation (r) are reported on the upper off-diagonal.

TABLE XIII

BETA WEIGHT

Predictors	Beta(β)
Teachers' educational background	-0.017
Sex education training	0.203*

* t(.05; 300)=1.96

Attitudes

The researcher was interested in predicting the teachers' attitudes about HIV/AIDS from their sex education training and educational background. A regression analysis was conducted to explore : What is the relationship between the teachers' educational background and sex education training about HIV/AIDS in teachers' attitudes toward HIV/AIDS?; and Is sex education training or the teachers' educational background about HIV/AIDS more useful in predicting teachers' attitudes toward HIV/AIDS? The researcher reversed the attitude scores in questions number one, two, three, four, six, eight, eleven, and number thirteen. These questions used negative statements to ask about teachers attitudes; thus if respondents chose "disagreed" that is the same as "agree" with those positive statement questions. For example, question number one read Students with HIV/AIDS virus should not be allowed to attend public school. If the participant choice was strongly disagree, it means he/she strongly agrees that students with HIV/AIDS should be allowed to attend public school.

The means, standard deviation, and bivariate correlation between variables of interest are presented in Table XIV. As shown, there was no statistically significant relationship between sex education training and teachers' attitudes about HIV/AIDS or teachers' educational background and teachers' attitudes about HIV/AIDS. Approximately 1% of the variance in teachers' attitudes about HIV/AIDS was predicted by teachers' educational background and sex education training. This did not reach statistical significance ($F_{obs}=1.043 < F_{cv}[2, \infty]=3.00$; $p<.05$)

TABLE XIV

DESCRIPTIVE STATISTICS FOR TEACHERS' INFORMATION

	Attitudes	Educational background	Sex education training
Attitudes	Y= 56.23 SD=7.00	.024	.079
Educational Background		X_1=3.12 SD=1.80	-.035
Sex education training			X_2=1.27 SD=0.44

N=300 ** correlation is significant at 0.01 level

Note: Means (Y, X_1, X_2) and standard deviations (SD) are on the diagonal. Bivariate correlation (r) are reported on the upper off-diagonal.

Knowledge and Attitudes

Does teachers' knowledge predict teachers' attitudes toward HIV/AIDS? A regression analyses showed that 4.7% variance in teachers' attitudes about HIV/AIDS is predicted by teachers' knowledge. It was statistically significant (Fobs=14.697> Fcv[1, ∞]=3.84; p<.05).

Question 4: Combination of Variables Best-predicted Special Educators' Attitudes toward HIV/AIDS

The attitudinal responses were factor analyzed using an SPSS factor analysis program. A principal component analysis was run followed by a varimax rotation procedure. Varimax rotation yielded five factors that accounted for 56% of the variance . Based upon inspection of variables loading on each factor, the factors were named (1) integration/segregation, (2) knowledge, (3) willingness to educate, (4) privacy, and (5) testing. The first factor involved teachers' attitudes about the integration or segregation of the student with HIV/AIDS. The first factor (integration/segregation) constitutes 20.7% of the variance. The second factor involved teachers' knowledge about HIV/AIDS, which constitutes 11.9% of the variance. The third factor involved teachers' willingness to educate the students about HIV/AIDS, which constitutes 9.6% of the variance. The fourth factor involved teachers' attitudes toward the privacy of students with HIV/AIDS, which constitutes 7.9% of the variance. The fifth factor involved teachers' attitudes toward to HIV/AIDS testing , which constitutes 6.4% of the variance.

See Table XV , the researcher provided further clarification of these categories. The results of this factor analysis were revealed to be similar to the factors identified in the Evans et al. study (1992). The knowledge (true/false test) scores and summed integration/segregation scores were then entered into a multiple regression model in which the teachers' attitudinal responses were the criterion variable, integration/segregation and knowledge (true/false test) scores were predictive of teachers' attitudes toward HIV/AIDS

($R=.79$, $F_{obs}=257.69 > F_{cv}(2, \infty)=3.00$, $p<.05$).

TABLE XV

ROTATED FACTOR LOADING (AIDS ATTITUDE)

Items	Factors				
	I	II	III	IV	V
1 Students with AIDS should not be in public school	.77				
2 Students with AIDS should not be participate in PE	.65				
3 Students with AIDS should not play contact sports	.68				
4 Students with AIDS should be in other Health Impaired classes	.52				
5 Students with AIDS should eat lunch in school cafeteria					.45
6 Students with AIDS should be segregated in regular class	.61				
7 Students with AIDS should be able to work in fast food					.48
8 Teachers should tell other students if a peer has AIDS					
9 Teacher should teach about AIDS		.44	.62		
10 Teachers would teach about AIDS if they had information			.69		
11 Teachers should not be required to work with students with AIDS	.54				
12 Mandatory testing of students with AIDS is necessary				.73	
13 Teachers would give CPR				.41	
14 Well informed about AIDS		.71			
15 Training about AIDS is sufficient		.71			
16 Want to learn more about AIDS				.55	

Note: the criterion of .40 was used for analysis of item loadings

CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

Teaching about HIV/AIDS has been a complex problem for special education teachers to face. As the number of HIV/AIDS cases continues to increase, special educators will have to face the challenge of providing students of all ages with accurate HIV/AIDS information and helping students utilize correct preventive methods.

Summary

The purpose of this study was to examine special education teachers' knowledge and attitudes toward HIV/AIDS and to determine which factors can better predict teachers' knowledge and attitudes.

Subjects in this study consisted of 300 special education teachers who work in Kaohsiung City (Taiwan) public elementary schools. The subjects were randomly selected from eighty-six public elementary schools with special education programs. The total number of respondents was 300 out of 350 polled. Respondents included 255 female and 44 male representing all kinds of special education program teachers in public elementary schools. Most special education teachers were 20-30 years old (36%) and 69 percent reported that they had 1-5 years teaching experience. There were 73% of the respondents without sex education or HIV/AIDS related training and 43% of the special education

teachers graduated from a Teachers' college or with a university major in special education.

The Knowledge and Attitudes toward HIV/AIDS Questionnaire (Evans, et al. 1992) and the Participant Demographic Information Sheet were the instruments used to assess special education teachers' knowledge and attitudes toward HIV/AIDS. The Knowledge and Attitudes toward HIV/AIDS Questionnaire was translated into the Chinese version. Validity of the versions of the translated Knowledge and Attitudes toward HIV/AIDS Questionnaire was established through cooperation of the researcher and professionals during the process of translation.

The major findings of the study included these listed below:

1. Many respondents (90.3% to 99%) gave the right answer on items which described transmissions and prevention of HIV/AIDS. However, special educators lacked knowledge about blood transfusion(39.3% correct) and donating blood(26% correct) with HIV/AIDS. The average of special education teachers' knowledge section scores (true/false test) was 73% correct. The HIV/AIDS knowledge score had a range from 9 to 20 items answered correctly and mean score was 14.67 out of 20 questions. The HIV/AIDS knowledge score had a range from 9 to 20 items answered correctly and the mean score was 14.67 out of 20 questions.

2. The results of the attitude test showed that most Kaohsiung City special education teachers were positive toward the integration of students with HIV/AIDS in public school and for allowing them to attend school activities

(72.9% to 55.3%). Ninety -one percent of the respondents were also willing to teach students who tested positive for HIV/AIDS following a training program on HIV/AIDS. They believed that it is the teachers' responsibility to teach their students about HIV/AIDS (84%) and that teachers should notify their students if one of their classmate has the HIV/AIDS virus (49%). Half of the respondents agreed mandatory testing of students (K-2) for the HIV/AIDS virus should be required for all students (40.6%), and half disagreed (43%).

3. Approximately 4.2 % of the variance in teachers' knowledge about HIV/AIDS is predicted by teachers' educational background and sex education training. Sex education training was a stronger predictor of teachers' knowledge about HIV/AIDS.

4. About 1% of the variance in teachers' attitudes about HIV/AIDS was predicted by teachers' educational background and sex education training, but it did not reach statistical significance.

5. About 4.7% of the variance in teachers' attitudes about HIV/AIDS is predicted by teachers' knowledge and it reached statistical significance.

6. The factor analysis was used on the Attitudes section of the questionnaire to examine the factor structure of the scale. Varimax rotation yielded five factors that accounted for 56% of the variance. Based upon inspection of variables loading on each factors were named integration/segregation, knowledge, willingness to educate, privacy, and testing. Comparing the variables loading on the integration/segregation factor with Evan et al. (1992) revealed that this factor was similar. This first factor involved

teachers' attitudes about the integration or segregation of the student with HIV/AIDS. This integration/segregation factor involved teachers' attitudes about the integration or segregation of the student with HIV/AIDS. The integration/segregation factor constitutes 20.7% of the variance.

7. Approximately 63% of the variance in teachers' attitudes about HIV/AIDS is predicted by integration/segregation and knowledge (true/false test) and it reached statistical significance.

Discussion

The purpose of the present study was to examine the knowledge and attitudes of HIV/AIDS in elementary school special education teachers in Kaohsiung City (Taiwan). The return rate of 85% (300/350) is higher than the 20% typical of mail-in surveys. The return rate may well be a reflection of the willingness of special education teachers to involve HIV/AIDS education.

Most health educators currently recognize transmission and prevention as the most important aspects for people to know about the HIV/AIDS (Lin, 1995). The results of the HIV/AIDS knowledge test in the present study showed that special education teachers lacked the knowledge about blood transfusion and blood donated with HIV/AIDS, even though they were well informed about HIV/AIDS prevention and other general information about HIV/AIDS.

Seventy percent of special education teachers thought that there was a 50% chance of getting AIDS by blood transfusion. Blood transfusion is not risk free and the Taiwanese newspapers do report ten blood transfusion recipients who have been infected with HIV through blood products in Taiwan (Ghosts still haunt blood supply, 2000). The researcher stated the chance of being infected with HIV/AIDS through blood transfusion in the US is estimated to be around two cases per million, while in Taiwan the chance is just 0.23 per one million(Chen, 2000). Thus, there is a slight chance for being infected with HIV/AIDS by blood transfusion, which may explain teachers' fears and confusion about blood transfusion and HIV/AIDS. These fears may mislead teachers to connect blood

transfusion with blood donation. Even though, all the needles , bags, and tubing used for donating blood are sterile, disposable, and used only once, there is absolutely no risk of contracting HIV/AIDS by donating blood. Some teachers are still confused by this. 74% of special education teachers who thought that a person can get AIDS by donating blood.

Although only 26.7% of the special education teachers had related sex education training, the average of correct answers in the knowledge section in the present study for all participants was 73%. Yen, et. al (1996) surveyed Taiwan junior high schools, high schools, vocational high schools, and college teachers (N=513) attitudes and their teaching needs about HIV/AIDS and found that less than 50% of the teachers had related sex education training.

The finding of the present study that the teachers were knowledgeable (73%) about HIV/AIDS although they had little formal training indicated that various public messages such as newspapers and magazines were having the desired impact. Similarly, the Yen et al. (1996) study investigated 89.5% of the teachers in Taiwan who got information about HIV/AIDS from newspapers and magazines and 79.7% from television. That might indicate that media is the primary source of teachers' knowledge about HIV/AIDS.

In this study, there were positive and significant relationships between teachers' training and teachers' knowledge about HIV/AIDS, but teachers' sex education training had only about a 4% correlation (r=0.204) with teachers' knowledge about HIV/AIDS. There were only 26.7% (n=80) of the special education teachers who had sex education training; eleven teachers wrote down

that their sex education training was about gender role in society. Those might be the reasons for the low correlation between teachers sex education training and teachers' knowledge about AIDS. Taiwan teachers' inservice education programs do need to provide more HIV/AIDS education training for teachers.

Teachers' educational background was a weak predictor of teachers' knowledge about HIV/AIDS. There were 43% special education teachers in Kaohsiung City who graduated from teachers' college majoring in special education but, according to the courses requirement in the teachers college, they did not have a sex education course.

The results of this study were in accord with Evans et al. (N=105) (1992, Louisiana, USA) and Yen et al.(1996, Taiwan)(N=513) who both found that teachers had positive attitudes toward students with HIV/AIDS and included them in public school regular classrooms. Similarly the results from previously cited studies, found that special education teachers were in favor of integrating persons with HIV/AIDS in general school activities.

Ninety-five percent of the elementary school teachers in Taiwan agreed that public school districts have also been recognized as a group to provide proper sex educational programs for their students, employees, and staffs (Chung, & Yen, 1997). What teachers' believe will affect their behaviors and attitudes when they teach in their classrooms (Hubbard, 1998). Also, teachers' attitudes and beliefs have a powerful impact on their students. This study found that 91% of special education teachers agreed that, if they had necessary training, they would teach their students about HIV/AIDS and 90% of special

education teachers were willing to learn more about HIV/AIDS. In this study , teachers' knowledge about HIV/AIDS significantly predicted teachers' attitudes toward HIV/AIDS. According to this research finding, the Kaohsiung City Teacher Inservice Education Center need to have training programs or course content dealing with HIV/AIDS issues to meet the needs of inservice personnel.

Nineteen percent of the special education teachers thought they were well informed about AIDS in this study. 54% of the teachers perceived themselves as well-informed on the subject of HIV/AIDS in the Adams and Biddle 1997 study (Ohio, N=88), and 28% of the special education teachers in the Evans et al. study viewed themselves as well-informed (1992, Louisiana, N=105). But the knowledge test scores showed that special education teachers in Taiwan were as knowledgeable about HIV/AIDS as the results of the Evans et al. and Adams et al. studies. Cultural differences might explain these findings. " Well –informed" teachers in the Taiwanese culture would set for themselves a high standard, that is it might be hard for Taiwanese teachers to consider themselves "well-informed", if they do not understand the concept 100 percent.

49.7% of the teachers agreed that teachers should tell their students that one of their peers has the AIDS virus. Are those teachers knowledgeable about the rights of the child's privacy? Are they familiar with the legal issue of children with HIV/AIDS? According to case law *Child v. Spillane* (1989), educators need to make a notification to all the school parents if there is a child with AIDS in the school. The school has to protect the privacy of a child with HIV/AIDS as well. When a school makes a notification, it has to be general in nature with no

personal identification of the child. This finding may remind the teachers' education system to be well informed of teachers' knowledge of legal issues for working with students who are at risk, are HIV positive, or have AIDS.

Yen et al (1996), Chung and Yen(1997) and the present study all indicated that the teacher educational system in Taiwan can no longer be content to address traditional curricular areas. Courses have to be designed to include not only knowledge of HIV/AIDS, but also its psychosocial implications. Legal, ethical, religious, medical, issues about death and dying, issues about health, and safety and issues about sex education, and family support are also among the issues that must be addressed.

An important finding of the present study was that teachers' knowledge about HIV/AIDS, and teachers' beliefs about integration/ separation have potential influence associate with teachers' attitudes toward HIV/AIDS. According to this finding, if society expects special education teachers to have positive attitudes and be welling to teach HIV/AIDS to their students, it should provide teachers more chances to learn the correct knowledge about HIV/AIDS. The correct knowledge about HIV/AIDS might help teachers decrease the fears and confusion about HIV/AIDS, and help them increasing their confidence to teach students about HIV/AIDS. At same time, teachers should have opportunities to learn the skills to help student with HIV/AIDS in the regular classroom.

An exploration of the attitudes' instrument factor analyses loading had similar results to Evans et al. (1992). These 36 items loading in the five factors

with most items loading in integration/segregation in both studies. The purpose of the Evans et al. study (1992) attitudes section instrument was to survey special education teachers. The present study supported the fact that the Evans et al. study found that special education teachers' attitudes accounted for 21% focus on the integration/segregation factor. If teachers had high scores on this attitudes survey, they mostly agreed with integration of student into the regular classroom.

No statistical significance was found between teachers' attitudes toward HIV/AIDS as related to teachers' educational background and sex education training. The reason might be that there were only 26.7% (80 out of 300) teachers attend sex education training (see Table VIII, p35). For the future study, the researcher could focus on those teachers' who receive the training: what those teachers' training programs focus on? (physical conditions, medical treatment, transmissions, preventive method of HIV/AIDS, teachers' thinking, behavior attitudes, beliefs, or policy about HIV/AIDS).

There were a number of limitations in this study. First, the subjects were recruited from Kaohsiung City only. Second, an overwhelming number of the subjects were females, leading to difficulty for the researcher to make any comparison between genders in this study. One of the limitations of this research is the lack of special information on where other places or resources teachers get the information about HIV/AIDS. Even though subjects had answered the question about whether they attended any sex education training or related training about HIV/AIDS or not and wrote down the topic of sex education training and how many hours did they have on this training? It is not enough information

to research where teachers learned the knowledge about HIV/AIDS. According to the literature review, teachers did learn knowledge about HIV/AIDS from different sources, and those source do affect teachers' knowledge and attitudes about HIV/AIDS. The researcher only could assume that teachers had high scores on knowledge about HIV/AIDS because they learned that information from different sources.

Even though the researcher tried to uphold the accuracy and validity of the translation versions through cooperating with many professionals, it was unavoidable to have paraphrase differences between the Chinese translations and the original English form because of different language systems.

Recommendations

The researcher recommends that further research needs to be conducted to evaluate the knowledge and attitudes of teachers at middle school and high school levels. It would be beneficial to conduct a citywide survey in Taiwan to determine the baseline of teachers' knowledge and attitudes toward HIV/AIDS that could fuel the implementation of earlier training as an intervention.

The measures on which the data collected should be reconsidered for future research. The knowledge section measure should add more questions about legal and ethical issues; the attitudes section should consider more cultural inferences and culture fear and stigma toward HIV/AIDS.

Future studies need to be focused on teachers' education systems. Do those teacher training systems have enough knowledge about HIV/AIDS and related issues? What kind of training systems do special education teachers

prefer to attend: one day HIV/AIDS education conference or once a week one hour HIV/AIDS group learning activity?

Special education is a cooperative work. When society asked special education teachers to take responsibility to educate children with special needs and teach children the correct information about HIV/AIDS, does the whole education system work together to support every child's individual needs and medical support? Those will be interesting topics for future studies.

Based on the results of this study, the researcher suggests that school districts need to provide more in-service training and to keep teachers current with the literature related to HIV/AIDS in the school setting, especially information related to blood transfusion and blood donation. Colleges and universities also need to prepare pre-service teachers to work with both children who are HIV-positive and their families. Therefore, teachers' education programs have to not only provide basic knowledge about HIV/AIDS prevention and transmission, but also focus on attitudes, ethics, psychosocial adjustment, and skills to establish an understanding of children who have HIV/AIDS.

BIBLIOGRAPHY

Adams, D.R., & Biddle, J. K. (1997) AIDS in the classroom. Journal for a Just and Caring Education 3, (3), 277-288.

AIDS apocalypse expanding conference in Africa brings experts into heart of disease's darkness. (2000, June 28). USA Today, p. 7D.

AIDS in Asia. (1999, October 14). Asia Today, p.1. [online] Available: http://www.asiasource.org/news/

AIDS Prevention Guide. (1989). Rockville, MD: The Clearing house.

Brantlinger, E. (1992). Sexuality education in the secondary special education curriculum: Teachers' perceptions and concerns. Teacher Education and Special Education, 15 (1), 32-40

Bowd, A. D. (1987). Knowledge and opinions about AIDS among student teachers and experienced teachers. Canadian Journal of Public Health, 49 1105-1114.

Brucker B.W., & Hall, W.H. (1991) AIDS in the classroom: Are teacher attitudes changing Early Child Development and care, 77, 137-147

Brucker B.W., & Hall, W.H. (1996) Teachers' Attitudes toward HIV/AIDS: An American National Assessment. Early Child Development and Care ,115 p85-98

Brucker, B. W., Martin, J., & Shreeve, W. (1988). AIDS in the classroom: A survey of teacher attitudes. Washington, D.C: Center for Disease Control, National AIDS Information. (ERIC Document Reproduction Service No. ED 300343).

Centers for Disease Control. (1998). HIV/AIDS surveillance report (Year-end edition Vol.10, No.2) Atlanta, MD: Author.

Chen, G. W. (1990). A survey of Taiwan college fresh men's attitudes toward AIDS. Public Health, 17(3), 47-59.

Chen, J. W. (2000) Blood transmission. The Chinese Blood Service Foundation

Chie, Y. M. (1987). Vocational high school third grade students' parents' and teachers' knowledge, attitudes, and behaviors toward sex education. National Taiwan Normal University Master Students Researches Journal.

Child v. Spillane, 875 F. 2d 314 (4 th Cir. 1989).

Chung, S. C., & Yen, H. W. (1997) Elementary school teachers' attitudes toward sex education. The Journal of Sex Education in Taiwan,3,(2), 1-20.

Chun, Z. E. (1990). A study of Taiwan High school students' knowledge and behaviors toward AIDS. Public Health, 17(3), 273-287.

Coomer, J.Y. (1993). AIDS in elementary school: a case study. Principal, 72, (4), 27-28.

Davis, C., Tang, S.K., Chan, S.F., & Noel, B. (1999). The development and validation of the international AIDS questionnaire-Chinese-version. Educational and Psychological Measurement,59, (3), 481-491.

Department of Health, R.O.C. (1998) Introduction of AIDS. [On-line] AIDS Origination Taiwan. Available: www.aids.org.tw/aids/aid01.htm

Eagly, A.H., & Chaiken, S. (1993). The psychology of attitudes. Florida: Harcourt Brace Jovanovich, Inc.

Education of the Handicapped Act of 1970, Pub. L. No. 91-230, § 601-662, 84 Stat. 175.

Evans, E. D., Melville, G. A., & Cass, M. A. (1992). AIDS: Special educators' knowledge and attitudes. Teacher Education and Special Education, 15 (4) , 300-306

Fetter, P. M. (1989). AIDS education: Every teacher's responsibility. Child Education, 65 (3), 150-152

Ghosts still haunt blood supply. (2000, April 7). Taipei Time, p1-3

Gray, C. D. (1989) Opening comments on the conference on development disabilities and HIV inflection. Mental Retardation, 27 (4), 199-200.

HIV to double in Asia by 2000. (1998, September 15). BBC News, p1. [online]. Available : http://news2.this.bbc.co.uk/hi/english/health/

Huang, K. E. (1982). Youth knowledge, attitudes, and behavior toward to sex education. National Chengchi Unversity Educational Journal, 5, 115-176.

Hubbard, L. J. (1998). Teachers' attitudes toward children of drug-related births. New York: Garland Publishing, Inc.

Individuals with Disabilities Education Act Regulations of 1987, 45. C. F. R. Sec. 84.3.(j)(1)(i)(1987).

Introduction of Taiwan Special Education, 1999. [On-line] Republic of China Government. Available: 192.192.59.7/search/instro.html

Kao, Z. S. (1986) The study of Taipei City Junior High School teachers' knowledge, attitudes and professional training about sex education. Unpublished master dissertation. National Taiwan Normal University.

Keogh, K. E. & Stanton, G. (1988). Superintendents' view on AIDS: A national survey. Phi Delta Kappan, 69, 358-361.

Kuan, P.P. (1998). Elementary school teachers' knowledge and attitudes toward AIDS and AIDS education. Manuscript submitted for publication.

Lee, L. (1979). Where the college fresh men's knowledge about sex from? The Journal of Science Development 7(5).

Lee, T. Y. (2000). Investigating confidence and efficacy of special education preservice teachers in traditional and alternative teacher education program in Taiwan. Unpublished doctoral dissertation. Oklahoma State University.

Leigh, W. A. (2000). HIV/AIDS prevention education for African American youth: approaches, issues, and recommendation.(Report No. RIENOV2000) U.S.: District of Columbia (ERIC Document Reproduction Service No. ED 441 910)

Lin, B. K. (1997). Survey Taiwan disabilities population and placement. The Taiwan and China Research, 2-11.

Lin, C. M. (1986). A study of Kaohsiung and PinTon areas vocational high school students' knowledge about sex education. The Kaohsiung City Hi-Chin Vocational High School Research Report.

Lin, W.S., (1995) Science teachers' knowledge and attitudes toward HIV/AIDS and their intentions to teach about HIV/AIDS. Unpublished doctoral dissertation, University of Iowa.

Lin, Y. Y. (1978). The study of Taipei City junior high school third grades students' knowledge, attitudes, and behaviors toward sex education. Health Education in School, 3, 1-22.

Lipson, J. M. (1993). Effective AIDS education: Is candid discussion the answer? Unpublished doctoral dissertation, Oklahoma State University.

Martinez v. School Board of Hillsboro County Fla., 861 F. 2d 1502 (11 th Cir. 1988)

Mirko, D. G. (1990), History of AIDS. New Jersey: Princeton University Press

Pang, I. ,& Watkins, D. (2000) . Towards a psychological model of teacher-parent communication in Hong Kong primary schools. Dorchester-on Thames 26, (2), 141-163

Peach, L., & Reddick, T. (1989). A study of administrators' and teachers' view concerning AIDS and related issues. Paper present at annual meeting of the Mid-South Educational Research Association, Little Rock, AR.

Prater, M. A. & Serna, L. A. (1993). Teaching about HIV / AIDS and abuse: special educators' perspectives. Teacher Education and Practice, fall/winter, 65-73.

Rehabilitation Act of 1973, Section 504, 29 U.S.C. § 794.

Royse, D., Dhooper, S. S., & Hatch, L. R. (1987). Undergraduate and graduate students; attitudes toward AIDS. Psychological Reports, 60, 1185-1186.

Rupard, J. M. (1999). A description of teachers' beliefs about students with AIDS using Q method. Unpublished doctoral dissertation, Oklahoma State University.

Seton Scholl Healthcare Group Plc.(1999) Global survey into sexual attitudes and behavior [Online] http://www.durex.com/globalMainBody.htm

Seton Scholl Healthcare Group Plc.(2000) Global survey into sexual attitudes and behavior [Online] http://www.durex.com/globalMainBody.htm

Smith, M. L., Minden, D., & Lefevbre, A. (1993). Knowledge and attitudes about AIDS and AIDS education in elementary school students and their parents. The Journal of School Psychology, 31 ,281-292.

Special Education Act of Republic of China.(1986)

Special Education Act of Republic of China.(1997)

Su, Y.C. (1998). The report of AIDS population in Taiwan [on-line] China Time News. Available : www.techisland.com.tw/News/ctimes/1120/ csocial/87112808

Trends in sexual risk behaviors among high school students—United States, 1991-1997. (1998, September 18). Morbidity and Mortality Weekly Report, 47, 749-752.

Tweeten, L. (2001, February 12) . A continent in peril. Time, 157, (6).

Wu, Y. B. , Adams, J. G., & Schereer, Y. K. (1990). How much do future teachers know about AIDS? Action in Teacher Education, 12 (3), 37-42.

Yen, H. W., Ben, E. T., Lee, L., & Lin, E. C. (1992). The study of kindergarten to six grade students', parents' and teachers' needs about sex education in Taiwan. The Journal of Health Education,13, 1-17.

Yen, H. W., Ben, E. T., & Lin, E. C. (1996). The study of teachers' attitudes about AIDS education in Taiwan. The Journal of Sex Education in Taiwan,2, 1-17.

APPENDICES

APPENDIX A

KNOWLEDGE AND ATTITUDES TOWARD HIV/AIDS QUESTIONNAIRE

ENGLISH VERSION

Please fill out the questions below.

Gender

□Male □Female

Age

□20-30
□31-40
□41-50
□51-60
□61 or above

Education background

□Five years Junior Teachers' College emphasis in special education
□Teachers' College or Normal University majors in special education
□After regular university, take 20 special education credit hours
□After regular university, take 40 special education credit hours
□After regular university, take 60 education credit hours emphasizing in special education
□Substitute teacher unrelated major
□Other

Do you have any training in issues related to HIV/AIDS education?

□Yes □ No

If yes, how many hours did you take? _____ hours

How long have your been teaching special education? _____years

How long have your been teaching in general education ?_____years

Please circle the answer you think is the best

1. If one takes birth control pills one cannot catch AIDS.
True (False)

2. Sharing needles or syringes, even once is a way to be infected with AIDS virus.
(True) False

3. If one touches a person with AIDS one can become infected.
True (False)

4. If somebody in my class has AIDS, I (the teacher) and my students are likely to become infected.
True (False)

5. If one never uses intravenous drugs and has sexual intercourse only with persons of the opposite sex one cannot get AIDS.
True (False)

6. The virus that causes AIDS is called HIV.

(True) False

7. One can catch AIDS from toilet seats or other routinely used (fork) objects.
True (False)

8. The AIDS virus can be spread by coughs or sneezes.
True (False)

9. If one had recent blood transfusion one stands a moderate chance (50/50) of getting AIDS.
True (False)

10. It has been documented that AIDS can be transmitted via " French" Kissing.
True (False)

11. If one uses a condom one won't get AIDS.
True (False)

12. One can get AIDS by donating blood.
True (False)

13. Approximately 2.5 million teenagers are infected with sexually transmitted disease.
True False

14. AIDS can be transmitted via oral intercourse.
True False

15. Use of lambskin condoms as opposed to latex condom decrease the chances of infection with AIDS.
True False

16. Above ½ of 1% of the U.S. population is infected with AIDS virus.
True False

17. Infected mothers can pass AIDS virus to their babies while breast-feeding.
True False

18. One can catch AIDS by using the sex toys of others.
True False

19. On average an AIDS victim dies about 2 years after the symptoms first appear.
True False

20. A significant number of people infected by AIDS virus are teenagers.
True False

Please circle that best represents your degree of agreement to each of items below.

1.Students with the AIDS virus should not be allowed to attend public school.
Strongly agree Agree Undecided Disagree Strongly disagree

2.Students with the AIDS virus should not be able to participate in PE.
Strongly agree Agree Undecided Disagree Strongly disagree

3.Students with the AIDS virus should not be able to participate in contact sports.
Strongly agree Agree Undecided Disagree Strongly disagree

4.Students with the AIDS virus should be segregated into classes for the other health impaired.
Strongly agree Agree Undecided Disagree Strongly disagree

5.Students with the AIDS virus should be able eat lunch in the cafeteria with their classmates.
Strongly agree Agree Undecided Disagree Strongly disagree

6.Students with the AIDS virus should be place in a regular classroom but segregated from the other students.
Strongly agree Agree Undecided Disagree Strongly disagree

7.Students with AIDS virus should be able to work in fast food places.
Strongly agree Agree Undecided Disagree Strongly disagree

8.Teachers should tell their students that one of their peers has the AIDS virus.
Strongly agree Agree Undecided Disagree Strongly disagree

9.It is teachers' responsibility to teach their students about AIDS.
Strongly agree Agree Undecided Disagree Strongly disagree

10.Teachers would teach their students about AIDS if they had the necessary training.
Strongly agree Agree Undecided Disagree Strongly disagree

11.Teachers should not be required to work with students with the AIDS virus.
Strongly agree Agree Undecided Disagree Strongly disagree

12.Mandatory testing of students (K-2) for the AIDS virus should be required for all students.
Strongly agree Agree Undecided Disagree Strongly disagree

13.I would not hesitate to give CPR (mouth to mouth) plus heart compression to a student infected with AIDS virus.

Strongly agree Agree Undecided Disagree Strongly disagree

14.Overall, I think I am well informed about AIDS.

Strongly agree Agree Undecided Disagree Strongly disagree

15.Overall, my formal training about AIDS is sufficient.

Strongly agree Agree Undecided Disagree Strongly disagree

16.I am interested in learning about AIDS.

Strongly agree Agree Undecided Disagree Strongly disagree

APPENDIX B

KNOWLEDGE AND ATTITUDES TOWARD HIV/AIDS QUESTIONNAIRE

CHINESE VERSION

國小特殊教育教師對愛滋病教育的知識與態度問卷調查

各位敬愛的老師:

這份問卷是有關您對愛滋病的一些看法與瞭解的調查,您寶貴的意見是研究者對日後特殊教育在愛滋病教學與博士論文的一項重要的資源

謝謝您撥空完成以下的問卷 並請您將問卷與同意書一併由交換中心轉至正興國小特教班　敬祝

教安

奧克拉荷馬州立大學研究所博士班學生

關培培 敬上

壹 基本資料

請你在適合的□內打勾

性別: □男　□女

年齡: □20-30 歲

□31-40 歲

□41-50 歲

□50-60 歲

□60 歲以上

學歷:

□師專特殊教育組

□師院或師大特殊教育系

□師範院校(含九所師院與三所師大)後 20 學分班

□師範院校(含九所師院與三所師大)後 40 學分班

□一般大學學士後特教學分班

□一般大學畢業後就讀師範院校(含九所師院與三所師大)學士後特殊教育學分班

□一般大學畢業無 20 學分以上特教學分

經歷:請填寫

任教國小普通班_____年

任教國小特殊班_____年 班別: □身心障礙資源班

□資優資源班

□語障資源班

□自足式特殊班 類別:_____(請填寫)

□在家教育巡迴輔導班

□其他:_____ (請填寫)

您是否參加過與愛滋病或性教育相關的研習?

□是, _____小時(請填寫)

□否

貳 問卷

A. 以下的問題您認為對的請打 O, 錯的請打 X

( )1.有服用避孕藥的人就不會被愛滋病病毒傳染

( )2. 即使只有一次和他人共用針頭或注射器 也有可能被傳染上愛滋病病毒

( )3. 如果觸摸到愛滋病患就會染上愛滋病病毒

( )4. 如果一名愛滋病患在班上 老師與其他學生都很有可能被傳染上愛滋病病毒

( )5. 如果從未使用靜脈注射的藥物並且只與異性發生性關係是
不會被傳染上愛滋病病毒的

( )6. 愛滋病(AIDS) 是由愛滋病病毒 (HIV) 所引發的疾病

( )7. 愛滋病病毒能透過廁所馬桶坐墊或日常生活用具(叉子)傳播

( )8. 愛滋病病毒能透過咳嗽或噴嚏傳播

( )9. 如果一個人最近接受輸血 他將有一半(50/50) 的可能性被傳染上愛滋病病毒

( )10. 曾有報導"法式的接吻"會傳播愛滋病病毒

( )11. 如果使用保險套就不會傳染上愛滋病病毒

( )12. 捐血可能會被傳染上愛滋病病毒

( )13. 大約有兩百五十萬的青少年被傳染上性傳染病

( )14. 愛滋病病毒會經由"口交"性行為傳播

( )15. 使用羊皮製的保險套比橡膠製的保險套較為減少愛滋病病毒的傳播

( )16. 截至民國八十五年五月止已經累積發現了有一千一百零二個
愛滋病病毒感染個案

( )17. 傳染上愛滋病病毒的母親會經由哺乳傳播愛滋病病毒給她的嬰兒

( )18. 愛滋病病毒會透過使用性情趣玩具傳播給他人

( )19. 平均而言傳染上愛滋病病毒的個案發病後約兩年就會過逝

( )20. 傳染上愛滋病病毒人個案中 青少年人數顯注增加

B. 請您根據您對下列問題的同意程度在( ) 填入適當的號碼

5-非常同意 4-有點同意 3- 不清楚 2- 有點不同意 1- 非常不同意

( )1. 被愛滋病病毒感染的學生不應該允許他就讀公立國民小學

( )2. 被愛滋病病毒感染的學生是不能上體育課的

( )3. 被愛滋病病毒感染的學生不能參與有接觸性的運動

( )4. 被愛滋病病毒感染的學生應該被安置在隔離式專為身體病弱學生設的特殊班級

( )5. 被愛滋病病毒感染的學生是可以和其它同學一起共進營養午參餐的

( )6. 被愛滋病病毒感染的學生應該被安置在普通班級但採隔離式的座位

( )7. 被愛滋病病毒感染的學生是可以在速食店打工的

( )8. 老師應告之班上的學生那一位同學是 被愛滋病病毒感染者

( )9. 教導學生與愛滋病相關的知識是老師的責任

( )10. 老師應教導學生與愛滋病相關的知識如果他參加過與愛滋病相關研習課程

( )11. 老師不應該被要求教導被愛滋病病毒感染的學生

( ) 12. 衛生當局應該規定從幼稚園到國小的學生都應接受是否被愛滋病病毒感染的檢驗

( )13. 我不會遲疑的給與被愛滋病病毒感染的學生 CPR 的急救(包括口對口人工呼吸與心肺復甦術)

( )14. 整體而言我想我有相當足夠的愛滋病相關知識

( ) 15. 整體而言我所接受與愛滋病相關的正式訓練是足夠的

( ) 16. 我非常有興趣參與與愛滋病相關的研習活動 學習與愛滋病相關的知識

APPENDIX C

COVER LETTER FOR PARTICIPANT

ENGLISH AND CHINESE VERSION

Dear Special Education Teacher,

Education programs have been identified by the Center for Disease Control as the best defense against HIV/AIDS in the absence of a vaccine or medical cure. Schools must be part of the efforts to control and eventually stop this disease. Many countries have mandated that schools adopt this topic in their curricula. Special education teachers should play a key role in accomplishing this task, but little is known about special education teachers and HIV/AIDS education. Clearly, there is a need to create a pool of data concerning this problem.

We are asking for your assistance in our project concerning special education teachers' knowledge and attitudes toward HIV/AIDS education. As part of this research, we would like to assess your knowledge about HIV/AIDS, and your opinions of HIV/AIDS issues in school. This information will be used to assemble and design materials for a program for teachers to use in teaching our students with special needs, and protect themselves from HIV/AIDS effectively. All you will need to do is to complete the enclosed research questionnaire, which should take you approximately 20 minutes. All responses will be kept completely confidential and anonymous; your name will not appear anywhere in the research reports. Please be sure to sign your name on the consent form, which is required by the University before you do this questionnaire. After completing the questionnaire please return it and the consent form in the envelope provided.

Since you have been randomly selected to participate in this study, your responses and input are representative of other special education teachers in

Kaohsiung City in Taiwan, and very important in this study. We encourage you to help us finish this research project by completing and returning the enclosed materials. You need not be in favor of HIV/AIDS education to participate. We simple want your input.

Please keep this letter for your records. If you have any questions regarding this research, please feel free to contact us at Graduate Student of Oklahoma State University in Department of Counseling Education Leadership (research advisor : Dr. J. Barbara Wilkinson) Pei-Pei Kuan, 1032 Wentz Hall, Stillwater OK 74077; telephone (405) 744 2353; email kpwow@yahoo.com and Universality Research Compliance Sharon Bacher at (405) 744-5700; email sbacher@okway.okstate.edu , to do so.

Thank you again for your help.

Sincerely,

Pei-Pei Kuan

Graduate Student of Oklahoma State University

In the Department of Counseling Education Leadership

各位敬愛的老師:

我正在做一項 "國小特殊教育教師對愛滋病教育的知識與態度" 的調查研究, 我非常需要您的合作與協助 我誠懇的希望您幫忙回答一份的調查問卷, 這份問卷調查大概需要您二十多分鐘填寫完成

我將會以下列的方式來保密您所填寫的資料

a)沒有任何的名字或辨認號碼會被寫在問卷上

b)研究者關培培將會是這份資料的唯一可以使用者

在您填寫問卷時 您將不會有任何不舒適或危險性 您隨時可以終止您的合作

如果您願意幫助我做這份研究 請您在同意書上簽名並填上日期, (同意書副本請您自行保留) 然後將同意書正本與填寫完的問卷分別放在不同的信封袋

由公文交換中心寄 至 正興國小特教班

請不要寫上您的名字或任何可辨認的記號在調查問卷上 非常感謝您撥空完成這份問卷 由衷感謝您的協助　敬祝

教安

奧克拉荷馬州立大學研究所博士班研究生

關培培 敬上

APPENDIX D

CERTIFICATION OF SUBJECT CONSENT

ENGLISH AND CHINESE VERSION

Certification of Subject Consent

Project Title: Elementary Special Education Teachers' Knowledge and Attitudes Toward AIDS and AIDS Education

Investigator: Pei-Pei Kuan

I was provided with the written summary for the above named research project that is printed on the letter. I understand the research purpose, procedures, and time involved by my participation and the researcher will do her best to maintain confidentiality.

I understand that I have the right to ask questions about the research at any time and that I can contact Pei-Pei Kuan (Graduate Student of Oklahoma State University in Department of Counseling Education Leadership ; research advisor : Dr. J. Barbara Wilkinson) at (405) 744-2353 , email kpwow@yahoo.com ,and Universality Research Compliance Sharon Bacher at (405) 744-5700; email sbacher@okway.okstate.edu, to do so.

I understand that my participation is voluntary. I may withdraw my consent and end my participation at any time.

I hereby freely consent to serve as a subject in the above named research project.

_____ _____ _____

Signature of Subject Date Time (am/pm)

All requests for information made in connection with this research comply with 45 CFR 46, Section 116.

Please sign and return this form with the questionnaire in the envelope provided.

同意書

我_____授權關培培執行下列程序:

1. 我將填寫一份基本資料與特殊教育教師問卷調查表
2. 這份問卷調查大概花二十多分鐘填寫
3. 研究的程序和結果將會以下列兩種方式保密:
   a)沒有任何的名字或辨認號碼會被寫在問卷上
   b)研究者關培培將會是這份資料的唯一可以使用者
4. 我填寫這份問卷時 我不會有任何危險或不舒適感
5. 這份研究的結果可以幫助師資教育家對未來師資在愛滋病的知識與態度教學與教材方向設定的一個重要資源

這份問卷調查的目的為瞭解特殊教育教師對愛滋病的知識與態度收集研究數據所用我瞭解完成這份問卷是自願的,不論這份研究參與與否絕對不會對我有不良影響並且我可以隨時終止研究合作

如果我有任何問題我可以打電話或 email 給研究者 關培培 查詢: (405) 744 2353 , kpwow@hotmail.com

我也可以聯絡 Sharon Bacher, 奧克拉荷馬州立大學研究部秘書 靜水城 奧克拉荷馬州 74078 ; 電話 (405) 744 5700 ; email: sbacher@okway.okstate.edu

我閱讀並充份瞭解這份同意書

我在自由和自願的情況下簽名 我並收到一份副本

日期: _____ 時間:_____

參與者簽名:_____

APPENDIX E

IRB FORM

Oklahoma State University
Institutional Review Board

Protocol Expires: 12/17/01

Date : Monday, December 18, 2000 IRB Application No ED0161

Proposal Title: ELEMENTARY SPECIAL EDUCATION TEACHERS' KNOWLEDGE AND ATTITUDES TOWARD HIV/AIDS AND HIV/AIDS EDUCATION

Principal Investigator(s) :

Pei-Pei Kuan
1032 Wentz Hall
Stillwater, OK 74078

Barbara Wilkinson
429 Willard
Stillwater, OK 74078

Reviewed and Processed as: Expedited

Approval Status Recommended by Reviewer(s) : Approved

NOTE: The reviewer still requests that the consent form be re-formatted to introduce the subject to the researcher, and the researcher's affiliation before introducing them to the study.

Signature : 

Carol Olson, Director of University Research Compliance

Monday, December 18, 2000
Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modifications to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Pei-Pei Kuan

Candidate for the Degree

of Doctor of Philosophy

Thesis: ELEMENTARY SPECIAL EDUCATION TEACHERS' KNOWLEDGE AND ATTITUDES TOWARD HIV/AIDS

Major Field: Applied Behavioral Studies

Biographical:

Personal Data: Born in Kaohsiung City, Taiwan, R.O.C., On February 20, 1965, the daughter of Mr. I-Min Kuan and Mrs. Mu-Lin Lee, one brother Pei-Min Kuan.

Education: Graduated from National Tai-Tong Junior Teachers' College, Taiwan in July 1986; received Bachelor of Special Education degree from National Tainan Teachers' College Taiwan, in July 1991. Received Master of Education degree in Special Education emphasis in Learning Disabilities from University of Central Oklahoma, Edmond, Oklahoma, Fall, 1996. Completed the requirements for Doctor of Philosophy with a major in Applied Behavioral Studies at Oklahoma State University in August, 2001.

Professional Experience: Teacher of elementary school in Tai-Tong and Kaohsiung County, Taiwan 1986-1988. Employed as a special education teacher and supervisor in Cheng Hsin Elementary School in Kaohsiung City, Taiwan , since 1993. Edmond Chinese School teacher teaching Chinese as a second language, Edmond, Oklahoma, 1994-1996. National Ping Tung Teachers' College Visiting Professor , Ping Tung, Taiwan, 1997-1999. Kaohsiung Branch Station and Education Broadcasting Station co host Parental Education radio call in program, Taiwan , 1990-1997. Awarded outstanding teacher in Kaohsiung City, 1990. Awarded national outstanding counselor for teens in Taiwan, 1994.

Professional Memberships: Republic of China Special Education Association