The Effects of a Cognitive-Based Intervention on Drug Awareness
in Private School Preadolescent Students

by
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Approval Page

This applied dissertation was submitted by Phyllis M. Parsons under the direction of the persons listed below. It was submitted to the Fischler School of Education and Human Services and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova Southeastern University.

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Abstract

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This applied dissertation was designed to provide preadolescent children in a home-based
setting with information about the dangers of drugs as well as to provide them with
resistance skills to help them remain healthy and drug free. The school's curriculum did
not include a drug education program although there was the likelihood that students
might be exposed to many at-risk situations.

The writer utilized the Too Good for Drugs (Mendez Foundation, 2004) curriculum
(Grade 7), a 10-lesson school-based prevention program designed to reduce risk factors
and enhance protective factors related to alcohol, tobacco and other drugs. She conducted
workshops for teachers and parents that promoted a participatory approach to help
teachers and parents acquire the requisite skills that would enable them to address the
topic competently with their students and children respectively.

At the end of the intervention, parents and teachers were to confirm that the requisite
information was provided to the students thereby (a) reducing their risk for drug initiation
and use and (b) providing them with tools to deal with peer pressure to use drugs. Based
on parents' exposure to drug-related information by way of attendance at a planned
workshop, students were to confirm whether or not access to such information impacted
parent/child discussion about drugs. An analysis of the data suggested that although the
program largely achieved its objectives, getting parents to discuss drug-related matters
with their children might require another type of approach.

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Chapter 1: Introduction

Description of Community

This applied dissertation was conducted in an urban city in the southeast region of a southern state. The community had an area of approximately 23 square miles and had a rich history dating back to the late 1940s when it boasted some 40 homes inhabited by less than 500 persons. The population grew from approximately 23,000 in the early 1970s to over 85,000 at last census taken in March 2004, and the population was projected to grow by an additional 30,000 over the next 6 years. The population comprised approximately 47% male and 53% female. Fifty-seven percent of the population were between age 22 and 64, 28% were over 65, and 15% were between the ages of 0 to 21.

Although the community was predominantly Caucasian (68.0%), there was a rich mix of other cultures comprising Blacks (13.8%), Hispanic (13.1%), Asian Indian (1.3%), Chinese (0.6%), and other races (3.2%). The community boasted large single- and multifamily dwellings ranging in cost from $70,000 to over $1 million with two-car garages and well-manicured lawns. Seventy-three percent of homes in the community were owner occupied while 27% were renter occupied.

The median age of the residents in the community was 37.9, and the median household income was approximately $50,000. A significant percentage (91%) of those over 25 years held a high school diploma. Just below 37% had bachelor's degrees and over 13% had graduate or professional degrees. Industries providing employment were education, health and social services (21%); professional, scientific, and administrative (14%); and retail, finance, and insurance combined (23%). The unemployment rate in the community was just under 4%. The statistics on crime in the community showed a steady decline over the past 3 years.

The community was located in close proximity to three major airports and several colleges and universities. It boasted a wide variety of private and public schools that catered to children from kindergarten through Grade 12, as well as a state-of-the-art library. There were a wide variety of shops and supermarkets, several recreational parks, public and private hospitals and medical facilities, police stations, and places of worship. There were also four golf courses and several hotels and motels in and near the community.

The vast majority of the residents in the community owned transportation, but public transportation was also available by way of buses and the community was adjacent to major highways, train stations, trirail commuter service, and a major deep-water port for passengers and freight. There were a number of civic organizations in the community. These included service organizations like Kiwanis, Rotary, Lions, the Orchid Society, Business and Professional Clubs, Chamber of Commerce, and Young Men's and Women's Christian Associations, among others. These organizations capitalized on the rich culture and vast experiences of the diversity residing in the community.

Writer's Work Setting

The work setting for this applied dissertation was a small private Christian school that provided general educational services to children prekindergarten-Grade 12. However, a scaling-down operation due to relocation and other factors had the school serving 6 prekindergarten students and a group of 12 students (Class A) ranging from ages 9 to 12 years old. The school's population totaled 18 students. The school was managed and operated by Christian administrators and employed teachers of high ethical, moral, and spiritual standards.

The school's philosophy was "Children are a heritage of the Lord . . . to be

educated lovingly, effectively and untiringly for time and for eternity, minds are enlightened, and lives are enriched." The school operated from a home setting. It had spacious, comfortable, and well-equipped classrooms. There was a library, a swimming pool, adequate recreational area, and suitable bathroom facilities. The administrators had hoped to move to a permanent home by mid 2005 at which time they planned to significantly increase the number of students on register.

The school day began at 8:15 a.m. and ended at 3:15 p.m. Monday to Friday. The day began and ended with prayer with the full knowledge and permission of its parents. Students were also required to recite the school's pledge at the start of each day. The school catered to a largely immigrant population who were functioning below grade level and who were having difficulty keeping up with their work and peers in the regular school system.

The curriculum consisted of 20 subjects including Art, Basic Computer Skills, Bible, French, Spanish, and Penmanship, in addition to state-required courses. The curriculum aimed to enlighten, enrich, excite, and motivate the students to achieve their maximum potential. Students were encouraged to aim high and to be the best that they could be. The small classes allowed teachers to give students the individual attention that they needed. The activities were varied and a participatory model of education was encouraged so students took an active role in the process. Lessons were prepared and delivered by teachers who had a minimum qualification of a bachelor's degree and were certified in their areas of expertise.

A strong code of discipline was practiced at the school. Any behavior that could hurt someone physically, emotionally, mentally, or spiritually was frowned upon and dealt with according to sanctions outlined in the disciplinary code. Students were

required to clean up after themselves and to turn in to the administration any items found on the premises. There was also a dress code with which students had to comply. The environment was pleasant and conducive to learning.

The school offered a pick-up and drop-off service. Parents were met at an agreed point by 7:30 a.m. each morning where their children were collected by the school's transportation. In the afternoons, the school returned the children to the same location and waited until they were collected by the parents. Some parents dropped off and picked up their children at the school.

Writer's Role

This writer had several years experience in the field of education, management, and counseling. She held a teaching diploma, bachelor's degree in management, and a master's degree in counseling psychology. She taught at the preschool, secondary and teacher's college levels, and provided counseling services to children, adolescents, and families. Her teaching experience spanned over 15 years and included preparing preschool children for entry into the regular school system, preparing high school students for local and national examinations, and training individuals for entry into the teaching profession. She also worked with a severely mentally and physically disabled child and achieved positive results. This writer also founded and managed a day care, preschool, and counseling services, which achieved significant growth during the time of its operation.

This writer provided consultation services both direct and indirect to children and adolescents who presented a broad range of behavioral and learning problems. These included but were not limited to conduct disorders, oppositional defiant disorders, attention deficit disorders, posttraumatic stress disorders, and drug-related problems. She

worked with adults who had suffered from spousal abuse, various mood disorders, anxiety disorders, and stress-related disorders. This writer also had experience in developing client's bio-psychosocial and treatment plan and was certified in the use of the Children's Functional Assessment Rating Scale.

This writer in her professional capacity as teacher and counselor participated in related workshops and gave talks to varying age groups in schools on the subject of drugs and to parents on developing effective parenting skills. She also had a paper on children's issues (special needs population) published in the editorial of a local newspaper in her country of origin. This writer maintained active membership in various professional and voluntary organizations and had in the past assumed leadership roles.

In the setting under discussion, this writer interacted with students, teachers, and parents over a 28-week period and implemented a knowledge-based program to help preadolescent students to achieve age-appropriate knowledge and awareness about drugs. In her capacity as investigator, this writer sought the cooperation of all the stakeholders in the process in keeping with the views of Hansen, Tobler, and Graham (1990), that it was important in prevention research to have the cooperation of those in the system as this was critical to the smooth operation of data collection and retention of subjects.

Chapter 2: Study of the Problem

Problem Statement

The problem to be solved in this applied dissertation was private school preadolescent students were not achieving age-appropriate established expectations for drug awareness.

Problem Description

The problem of drug use among the youth population worldwide is an ongoing challenge for parents, educators, governments, and others. Page, Hammermeister, and Roland (2002) indicated that drug use among adolescents showed a steady increase during the 1990s, and Sutherland and Shepherd (2002) pointed out that adolescent substance use is at unacceptably high levels. Elder, Baines, Leaver-Dunn, Nagy, and Leeper (2001) spoke to the importance of programs aimed at incorporating protective factors to combat the high rates of drug use and early initiation. Sutherland and Shepherd suggested that such programs needed to explore more comprehensively the "intentions" (p. 170) that adolescents have toward drug use if any level of success is to be attained.

Yuen and Pardeck (1998) supported the view that more young people are increasingly becoming involved in behaviors that are threatening to their well-being. Black, Tobler, and Sciacca (1998) posited that drug use among adolescents is "undermining the vitality of society" and that there was a "menacing drug problem confronting today's youth" (p. 87). Kantor, Caudill, and Ungerleider (1992) spoke to the role that educational institutions are expected to play as "society despaired at the family's failure to prevent or deter such social ills as adolescent substance abuse" (p. 11). Kafka and London (1991) proffered that the crux of the problem might be associated with adolescent's egocentricity, and that their indulgence in drug use could be a consequence

of their need to be accepted, to belong, and to be somebody. Hser et al. (2001) intimated that children's inclination to initiate drug use could be influenced by the various developmental stages through which they must pass. As stated by Kraft, Vicary, and Henry (2001), a concerted effort is needed by all stake holders to address the problem in a timely and systematic fashion by providing better treatment, better response from the justice system, and new approaches to treatment needs.

The children in the setting where this applied dissertation was conducted might benefit from knowledge-based intervention based on the views of Webster, Hunter, and Keats (2002). Young children were at risk of initiating drug use during early to midadolescence, making it paramount to providing drug prevention programs in the early grades. Mullen et al. (1997) pointed to the importance of changing personal health behaviors before clinical diseases developed. Jenkins (2001) pointed out that young people need knowledge about drugs in order to strengthen resistance and decrease use. The media and other sources of information sometimes present drugs in such a way that impressionable young minds might be led to believe that it is acceptable. Without adequate knowledge and awareness, certain myths attached to drugs might be taken as fact, making it vital to dispel the myths. Laursen and Brasler (2002) spoke to the importance of providing factual information as a means of delaying initiation of drug use.

Young children are impressionable and often exposed to half truths about drug harm to their cognition, learning, and decision-making capabilities. This partial information might most likely be gleaned from sources that are unreliable and likely to provide them with misinformation. Stevens and Griffin (2001) suggested that there is a need for some kind of safeguard to help young people withstand the stressors and temptations associated with drug use. Benson (as cited in Stevens & Griffin, 2001)

referred to these safeguards as "developmental assets" (p. 32).

Stevens and Griffin (2001) intimated that an important strategy would be to provide students with early intervention opportunities to help them explore and shape their beliefs. They also suggested that factual information about drugs and other associated problems would give children the opportunity to do their own self-evaluations and provide them with the skills to make appropriate choices.

Friends were a common source of misinformation (Bangert-Drowns, 1988) and, because peer influence was so strong, correcting or erasing information received through this medium was sometimes difficult. King, Wagner, and Hedrick (2001) suggested that devising creative and workable interventions within the school system would serve to promote socially acceptable behaviors and prepare students to lead productive lives and become good role models for others.

Knowledge about drug harm had been proffered as a preventive measure that could be utilized to inform, prepare, and protect children from initiating use. This knowledge could focus on helping children become aware that drug use begins at an earlier age (Yuen & Pardeck, 1998); that even short-term use of drugs can sometimes lead to addiction and that drugs can kill and affect how they learn, process, retain, and disseminate information. Laursen and Brasler (2002) suggested that even though youth appear to have an enchantment with drugs, it is possible through strengths-based prevention efforts to help them abstain from or decrease use.

It was important for students in the setting to know that they were not immune to the temptations of drug use and that there was an ongoing risk of encountering persons in their communities who used drugs or who might encourage them to use drugs. They also needed to be aware of the strong likelihood that some of their peers might drop out of

school because of drug use (Ellickson, Bui, Bell, & McGuigan, 1998). They needed to be aware that they, their families, and the families of their friends were all vulnerable and that it was important for them to develop strong resistance skills and learn strategies that would enable them to overcome the temptation to initiate drug use or to cease using. Ellickson et al. reminded that it would take the combined efforts of schools, families, communities and the society in general to combat the problem.

Although this problem had never been addressed before in this setting, this writer anticipated there would be cooperative thinking and collaborative efforts on the part of the administrators, teachers, and parents as they were well aware that this collaborative effort could hold the key to preventing their children from initiating drug use, as well as provide them with the skills to resist offers. Additionally, because of the Christian background of the setting, the small class size, and the disciplinary code to which the children were expected to adhere, this writer did not anticipate any major difficulties to the process.

Problem Documentation

In an interview with the principal (see Appendix A), she stated that 33 out of 36 parents indicated that preadolescents needed a drug awareness program to provide them with facts about drugs. The principal indicated that parents were in denial about their children's behaviors. She suggested that it was natural for parents to see only the good in their children; sometimes parents were afraid to broach certain topics with their children, drugs being one of them, and parents felt that by not talking about it, the children would not get involved. This could be applicable in this instance because the dominant culture of the children and their families did not encourage open discussion of drugs and, to a large extent, showed open acceptance and tolerance to alcohol, tobacco, and marijuana

use. Felix-Ortiz, Velazquez, Medina-Mora, Newcomb, and Michael (2001) intimated that merging of cultures and length of time domiciled in a new culture could contribute to drug use among youth.

Eight teachers who were also interviewed (see Appendix B) stated that there was need for a drug awareness program to be included in the curriculum as these students might be exposed to drug users in their communities and elsewhere and might be at risk for drug use themselves. Their views were supported by the health science teacher who also responded to a face-to-face interview (see Appendix C). The consensus among the teachers was that parents should monitor their children closely with regard to their choice of friends. Yuen and Pardeck (1998) appeared to support this view. They indicated that parental monitoring of the child's association with peers and those likely to engage in drug use and other deviant behaviors is crucial.

The point was made that many parents were accepting of some types of drugs, marijuana and alcohol were given as examples. It was also suggested that many parents smoked cigarettes and drank alcohol without realizing that they were modeling behaviors that could be viewed by their young children as acceptable. There was support for some of these utterances in the literature. For example, Garnier and Stein (2002) indicated that children form their world view through that of their parents and that the behaviors and attitudes of the children are influenced by that of their parents.

In an informal discussion with the principal and eight teachers, they indicated that children needed to have factual information on drug use because very often they interacted knowingly and unknowingly with peers who used or abused drugs. This view was supported by Jenkins (2001) who argued that there was a social component attached to drug use and that a significant connection had been found to exist between

adolescents' drug use and their association with drug-using peers.

The teachers suggested that their particular school setting served as a safety net because of its size and the intimacy it afforded between students and children. The literature, however, intimated that a high percentage of drug use takes place on school premises (Brener & Wilson, 2001). Because children found themselves in many situations outside of school where they interacted with peers--attending parties, going to the malls or just hanging out--the risk of initiation became greater and from this perspective, students needed to be armed with the knowledge that drug use was harmful.

In an unstructured interview with 11 of 12 students who were present, they stated that their parents seldom discussed issues relating to drug use with them. They did not elaborate but indicated that the subject hardly ever came up. The students suggested that if their parents knew they had a friend who was using drugs, they (the parents) would prevent them from associating with that friend. Many of the students said that they had heard from friends and adults that some drugs made people feel good and took away their problems. Similar views were posited by students in a study conducted by Laursen and Brasler (2002) and the majority of the students believed that marijuana and alcohol were not dangerous.

This view was also expressed by children in a study conducted by Peltzer (2003) in which the children surveyed stated that some types of drugs were safer than others. Students in this school also indicated knowing persons who used tobacco, alcohol, and marijuana. Research pointed to the limited knowledge among young children about drug harm. A study on alcohol awareness done by Houghton, Carroll, and Odgers (1998) indicated that despite the dangers attached to alcohol use, there was little to suggest that young children were aware of the health and social consequences.

Causative Analysis

Several causes were established by the writer for the nonachievement of expected knowledge among the target group. One such cause ascertained through informal discussions with the teachers was the teachers' lack of confidence and competency to teach the subject well. Schlozman (2000) stated that educators needed to encourage frank and honest discussions on the subject of drug use in order to help children examine their own views about use.

The teacher's main role is to impart knowledge in a timely and easily understood fashion. Research showed that teachers have a strong impact on students based on their level of interaction and trust developed over a period (Lambie & Rokutani, 2002), making them the ideal persons to provide children with applicable knowledge on drug use. As reminded by Schlozman (2000), the students themselves believe that their teachers know them better than anyone else. If students could not depend on their teachers to guide them in this area, they would more than likely get the information elsewhere, information that might not necessarily be factual; therefore, teachers should want to ensure that they are in the forefront of providing such knowledge.

Lack of confidence and competency could also be due to some teachers' concern that broaching the subject without a proper understanding of the process might increase students' interest and lead them to experimentation (Bangert-Drowns, 1988). This was an understandable fear but only underscored the need for teachers to seek the required help to equip them with the competency and confidence. Lambie and Rokutani (2002) seemed to be aware of this concern when they indicated that generally teachers were not provided with specific preparation in the area of drugs in their graduate programs, making it difficult for them to address the issues with confidence.

Andrews, Soberman, and Dishion (1995) spoke to the importance of gaining an understanding of the mechanisms that lead to students' problematic and risky behaviors, seemingly supporting the teachers' views that specialized training in the area of drug use is an important component. Gosin, Marsiglia, and Hecht (2003) suggested that competency comprised four components: knowledge, motivation, skills, and outcomes. They stated that in order for teachers to impart knowledge of drug-related issues effectively, these four components have to be present. Cultural bias could also contribute to the teachers' lack of competency and confidence. Gosin et al. suggested that there is a cultural basis attached to competence and that this guides the focus of how the topic should be presented as well as the manner in which the information is communicated.

Lack of confidence and competency also emanated from past personal experiences in which teachers watched young members of their families or their friends' families turn to drug use. In such instances, teachers felt some level of responsibility for not being able to prevent or change the behaviors of the individuals. They might have felt that they failed in their attempt to be good role models as posited by Gleicher (as cited in Harris, 1996), who indicated that students look to their teachers as role models and learn best from people whom they admire. In this instance, the teachers would need to discard the emotional baggage that they carried in order to gain the confidence and competency required. Despite the causes relating to lack of confidence and competency voiced by the teachers in the setting, research showed that teachers have a very good chance of deterring drug use among students as they have been proven to be the more credible source of factual information (Klepp et al. as cited in Harris).

Another cause ascertained through informal discourse with the teachers was that they did not have the time to do the necessary research to teach the issues relating to

drugs effectively. Teachers intimated that they had heavy work loads. The school's curriculum incorporated over 20 subject areas which were divided among the eight members of staff. This meant that some teachers were required to teach two or more subject areas in addition to preparing all the requisite documentation that was attached to teaching. In order to effectively and efficiently present the vast body of knowledge that surrounded the area of drugs, other areas of teaching got neglected.

The area of drugs is a sensitive one (Sutherland & Shepherd, 2002), and it requires detailed examination and exploration in order to present the facts in a meaningful and nonthreatening way. Lambie and Rokutani (2002) referred to the importance of being prepared educationally in order to assist young people and their families recognize possible precursors to drug use. They also suggested that a barrier to providing effective education in this area was the teacher-student ratio, which could limit the amount of time that teachers had to address the issues of drugs. The issue of limited time was also supported by Olsen and Dilley (as cited in Lambie & Rokutani), who alluded to the fact that teachers usually have a difficult time trying to meet all the professional and nonprofessional demands of their job. Andrews et al. (1995) also indicated that assigning adequate time to the topic of drug use is crucial in order to attend to the critical areas involved. Fox and Forbing (1991) offered support in expressing the view that teachers need to be knowledgeable not only to impart the facts but to detect early signs of use so that they will be able to recommend appropriate intervention and educational strategies.

A hidden cause related to the factor of time was that teachers did not have the interest or commitment to working with the target group. Lambie and Rokutani (2002) indicated that this age group was challenging to work with, amplifying problems for

teachers and counselors. They also suggested that the ambivalence attached to the subject by some sectors of society influence teachers' approach. Stevens and Griffin (2001) pointed out that the success of a drug education program would largely depend on the level of interest and commitment of those presenting the program.

A third cause established through interviews with the principal, informal talks with the teachers, and perusal of the curriculum documents was that the wide ranging curriculum offered in the setting did not have a drug education component. The major reasons for the noninclusion of a drug education program in the curriculum were the unavailability of staff to teach the subject, the nonprevalence of use in the setting, and the Christian focus of the school. There were, however, several arguments proffered in support of inclusion of drug education in the curriculum. Ennett, Tobler, Ringwalt, and Flewelling (1994) suggested that school-based drug prevention programs had been fundamental in the campaign against drugs over the past 20 years. Other authors suggested that including such programs in the curriculum could help to reduce children's vulnerability to drug use and other risky behaviors as they grew older (Boston University School of Public Health, 2001).

Gosin et al. (2003) argued that it is important to consider ethnicity and culture. They stated that many drug prevention programs erroneously assume that a "standardized curriculum" that focuses on "dominant cultural values" (p. 120) would be appropriate for all students, hence failing to incorporate the cultural experiences of minority groups. Jenkins (2001) intimated that school-based programs help children, among other factors, to focus on drug resistance, equips them with skills to deal with peer influence, and increases their knowledge about drug harm. Students' interaction with peers had been suggested as a possible risk factor in the setting under discussion and research had shown

that peers played an important role both in initiation of drug use and in difficulty to resist offers of drugs (Glynn, Kandel, & Lesser; Youniss & Smollaras as cited in Kafka & London, 1991). Sutherland and Shepherd (2002) also suggested that belief in future drug use becomes more firmly rooted with age, making it crucial for intervention strategies to begin early (Jenkins). It was intimated by Gosin et al. that students should actively participate in the development of the program by having their ideas integrated into the curriculum and feeding these ideas back to them in future discussions.

The final cause contributing to the nonachievement in expected knowledge among the students in the setting was that parents failed to discuss issues relating to drug use with their children. Smart, Chibucos, and Didier (1990) spoke to the importance of encouraging parent-child communication, balancing rules of conduct, and a nurturing environment to deter drug use.

Many parents failed to discuss matters pertaining to drugs with their children because of fear, lack of knowledge, time constraints, and poor relationship with their children, among others (Yuen & Pardeck, 1998). Cultural and gender issues may also be a cause for parents not discussing drug use with their children as in some cultures parents' attitudes and values suggest tolerance toward the use of certain drugs (Garneir & Stein, 2002).

Parents also believed to some extent that it was the responsibility of the school to provide their children with the tools and strategies to refrain from drug use (Lambie & Rokutani, 2002). Bangert-Drowns (1988) contended that where there was disengagement between parents and children, there was a high risk of drug initiation and use. Other researchers also strongly supported the view that where there was open communication between children and their parents about drugs, there was a high likelihood that children

might not initiate early drug use (Houghton et al., 1998; Smart et al., 1990).

Relationship of the Problem to the Literature

Griffin, Epstein, Botvin, and Spoth (2001) stated that drug abuse is a chronic social problem throughout the United States and is widespread among young people across the social strata. Yuen and Pardeck (1998) stated that although efforts at drug use prevention spanned approximately 25 years, the growth in prevention efforts had been sluggish and arduous. In the same vein, Muck et al. (2001) contended that drug use among the adolescent population had been a societal problem for some time and that there was a frightening pattern evident in adolescent drug use. Muck et al. also advised that adolescents were beginning to use drugs at an earlier age and that the initiation age for marijuana had "decreased from older than 18 in the 1960s to below 15 in the 1990's" (p. 144). Muck et al. suggested that this trend was cause for concern because most adolescents who started using marijuana at an early age and on a regular basis had progressively increased in prevalence and amounts of use. Bangert-Drowns (1988) also indicated that there was good reason to be concerned about drug use among the nation's school-aged population as the statistics showed that 20% of students used marijuana by the time they reached the eighth grade.

Schlozman (2000) intimated that there was a steady increase in drug use since the 1990s. King et al. (2001) disclosed that one in every four adolescents used marijuana and that since 1991, lifetime marijuana use had shown a significant increase, doubling in use between 1992 and 1997. Gosin et al. (2003) contended that early initiation of drug use among adolescents usually developed into more serious abuse of hard drugs. Schlozman also stated that a 1996 Monitoring the Future Study revealed that a marked percentage of 10th and 12th graders were using marijuana.

According to Stevens and Griffin (2001), there was evidence to show that a significant shift in the behavior of America's youth had occurred within the past 20 years. The authors stated that young people were increasingly engaging in behaviors that were risky to their health and that there was an overwhelming upsurge in the number of young people who were using drugs. The 1996 Youth Risk Behavior Survey (Stevens & Griffin) showed that marijuana use at the national level stood at 42.4%.

King et al. (2001) suggested that if present drug use continues among adolescents, "an estimated 5 million" (p. 236) young people might die prematurely. This view was supported by Johnston, O'Malley, and Bachman (as cited in Muck et al., 2001; Nagy & Dunn, 1999). They made reference to the 2001 Monitoring the Future Study (an annual survey of drug use among the nation's middle and high school students), which pointed out that adolescent drug use began increasing in the early 1990s and continued into the late 1990s. That study also showed significantly high levels of drug use among 8th and 10th graders, with even higher rates of use among 12th graders.

The National Institute of Justice Arrestee Drug Abuse Monitoring Program intimated that in excess of 50% of male juveniles arrested tested positive for at least one illicit substance (Kraft et al., 2001). The Office of Juvenile Justice and Delinquency Prevention indicated that there was an increase of 183% in drug abuse cases involving juveniles between 1987 and 1996 (Kraft et al.). The Arrestee Drug Abuse Monitoring Program also found that marijuana was the most commonly used drug among youth and, on an average, 53% of juvenile male and 38% of juvenile female arrestees tested positive for marijuana. Tables 1, 2, and 3, taken from the Monitoring the Future Study (National Institute of Drug Abuse, 2003), showed the trend of youth marijuana use between 1994 and 2003.

Table 1

Percentage of Eighth Graders Who Have Used Marijuana

Type of use	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Ever used	16.7	19.9	23.1	22.6	22.2	22.0	20.3	20.4	19.2	17.5
Used in past year	13.0	15.8	18.3	17.7	16.9	16.5	15.6	15.4	14.6	12.8
Used in past month	7.8	9.1	11.3	10.2	9.7	9.7	9.1	9.2	8.3	7.5
Daily use in past month	0.7	0.8	1.5	1.1	1.1	1.4	1.3	1.3	1.2	1.0

Note. From Marijuana, by National Institute of Drug Abuse, 2003, *Infofacts*, 6-7. Retrieved July 18, 2004, from http://www.drugabuse.gov/pdf/InfoFacts/Marijuana04.pdf. Reprinted with permission.

Table 2

Percentage of 10th Graders Who Have Used Marijuana

Type of use	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Ever used	30.4	34.1	39.8	42.3	39.6	40.9	40.3	40.1	38.7	36.4
Used in past year	25.2	28.7	33.6	34.8	31.1	32.1	32.2	32.7	30.3	28.2
Used in past month	15.8	17.2	20.4	20.5	18.7	19.4	19.7	19.8	17.8	17.0
Daily use in past month	2.2	2.8	3.5	3.7	3.6	3.8	3.8	4.5	3.9	3.6

Note. From Marijuana, by National Institute of Drug Abuse, 2003, *Infofacts,* 6-7. Retrieved July 18, 2004, from http://www.drugabuse.gov/pdf/InfoFacts/Marijuana04.pdf. Reprinted with permission.

Table 3

Percentage of 12th Graders Who Have Used Marijuana

Type of use	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Ever used	38.2	41.7	44.9	49.6	49.1	49.7	48.8	49.0	47.8	46.1
Used in past year	30.7	34.7	35.8	38.5	37.5	37.8	36.5	37.0	36.2	34.9
Used in past month	19.0	21.2	21.9	23.7	22.8	23.1	21.6	22.4	21.5	21.2
Daily use in past month	3.6	4.6	4.9	5.8	5.6	6.0	6.0	5.8	6.0	6.0

Note. From Marijuana, by National Institute of Drug Abuse, 2003, *Infofacts,* 6-7. Retrieved July 18, 2004, from http://www.drugabuse.gov/pdf/InfoFacts/Marijuana04.pdf. Reprinted with permission.

Historically, it was believed that boys were more at risk for substance abuse than girls as surveys done in North America pointed to more males than females using marijuana, heroin, and cocaine (Warner, Weber, & Albanes, 1999). Guthrie and Flinchbaugh (2001) argued that "a gender gap" (p. 356) in drug use between boys and girls had ushered the view that girls were protected from substance use. They suggested that in the early 1990s, the Center for Substance Abuse Prevention, which among other functions developed programs for drug abuse prevention among high risk youths, recognized that there was a need for gender specific programs. This recognition came after ascertaining that girls were becoming increasingly at risk for drug abuse and that they were not benefiting appreciably from existing programs due to poor attendance and low retention.

Several researchers suggested that levels of drug use differed among various

ethnic groups. For example, Kraft et al. (2001) suggested that African American youth have a lower level of use than Whites with Hispanics falling somewhere between the two. Felix-Ortiz et al. (2001) intimated that Mexican American youth had a higher level of use in comparison to Mexican youth, but that those in Mexican border states showed comparable usage that could be attributable to the "intense cultural exchange and economic interdependence which occurred in border regions" (p. 28). American Indian youths have also been described as having considerably high lifetime use of drugs, according to data from the Monitoring the Future Survey (Kulis, Napoli, & Marsiglia, 2002; Westberg, 2001), which intimated that American Indian and Native Alaskan tribes who were ashamed of their heritage were at risk of becoming drug abusers.

Page et al. (2002) suggested that "cocaine, marijuana and cigarette use among high school students consistently increased during the 1990's" (p. 567). Their findings were based on a National Youth Risk Behavior Survey conducted by the Center for Disease Control and Prevention. Page et al. also suggested that adolescents who use drugs perilously increase their likelihood of becoming dependent on drugs and exposed themselves to "life-threatening accidents and injuries" (p. 567). Dryness (as cited in McClanahan et al., 1998) aptly captured the sentiments posited when he intimated that if immediate intervention strategies were not put in place, "one in four" (p. 41) young people in the country could end up becoming irresponsible adults.

Kraft et al. (2001) indicated that there was an obvious link between juvenile crime and drug abuse and further contended that young people who used drugs were substantially swelling the juvenile system and that a significant number were to be found in addiction facilities unconnected to the justice system. The statistics were frightening and as Stevens and Griffin (2001) intimated, if young people continued to engage in

continuous at-risk behaviors, it could culminate in a life of underachievement, decelerate the possibilities of obtaining a job, increase the likelihood of chronic health-related problems, contribute to legal difficulties, and facilitate an early demise.

Morojele et al. (2002) stated that multiple causes are responsible for adolescent drug use and argued that school influence is a very strong predictor of use. Prevention is better than cure is an old adage and underlaid the intent of the program to be conducted in the setting under discussion. In order to help children in the setting achieve the level of expected awareness with regard to drug use knowledge, it was necessary to communicate to them through multifaceted approaches an understanding of the effects of drugs, the circumstances contributing to drugs, and the problems that were attached to drug use. These are the three components according to Gosin et al. (2003) that constitute knowledge. Jenkins (2001) stated that knowledge is necessary to strengthen peer resistance and decrease use as well as give children a better understanding of how they might resist drugs. Blake, Amaro, Schwartz, and Flinchbaugh (2001) also agreed that factual information should be provided at an early age, be geared to particular ethnic and racial groups, and address differences in use of both genders. They also argued that providing drug education with a social focus would possibly be more beneficial to girls.

The literature established that there was widespread drug use among adolescents of varying cultures across the globe and that initial use was beginning at a younger age (Stevens & Griffin, 2001). This is supported by Yuen and Pardeck (1998) who indicated that the onset age for drug use is 13 years old. Jenkins (2001) suggested that there is a significantly high level of drug use among youth in America. Her observations were based on reports gleaned from a sample of predominantly European Americans between 9th to 12th grades, 98% of whom had been exposed to a school-based drug education

program in the upper elementary grades. Jenkins stated that the progressively high levels of drug use among young people placed the "United States with the highest substance use rates in the industrialized world" (p. 211).

Jenkins (2001) stated that there is a social component attached to drug use and that a significant connection has been found to exist between adolescents' drug use and their association with drug-using peers. Jenkins suggested that if the complex nature of peer associations could be uncovered, it might provide stakeholders with the basis for strengthening peer resistance and decreasing drug use. It could also enhance understanding of the adolescents' views of why they might find it difficult to resist drugs.

A meta-analysis undertaken by Bangert-Drowns (1988) on the effects of school-based substance abuse education indicated that the "fundamental questions about the effectiveness of substance abuse education" (p. 244) had not been conclusive. It revealed that for the most part, drug education increased students' drug-related knowledge but caused no significant change in attitude and behaviors. It also contended that peer-led instructions impacted students' attitudes more positively than adult-led instructions.

Bangert-Drowns (1988) intimated that children and adolescents begin developing significant self-reliance during the school years. As a consequence, it is essential to provide them with drug education before they become inundated with such information from sources that could negatively influence their attitudes and behaviors. The author also suggested that drug education programs are effective in increasing students' drug-related knowledge although they appeared to be less effective in changing attitudes. Bangert-Drowns also stated that when students voluntarily entered such programs, it had a marked effect on decreasing use. He suggested that this could be due to students'

internal motivation of having made the choice themselves rather than being forced to participate.

Stevens and Griffin (2001) intimated that there is a critical age between elementary and high school at which boys and girls are more susceptible to at-risk behaviors and that intervention to heighten awareness is necessary; otherwise, these behaviors would be likely to increase and become entrenched in young people. Stevens and Griffin took the view that all stakeholders, that is educational institutions, policymakers, immediate and extended families, and the communities, have a responsibility for nurturing these children. Blake et al. (2001) suggested that the problem was of such long standing that federal agencies need to be more proactive in providing funding and other support.

Stevens and Griffin (2001) also proffered that stakeholders have a responsibility to intervene at all levels in assisting young people to make wholesome choices in order to prevent them from facing a life of negative outcomes. It was suggested by Stevens and Griffin that such responsibilities would involve (a) school-based programs geared at early detection and intervention, (b) providing young people with pertinent and real information relating to risk behaviors, and (c) allowing adolescents to do self-evaluations regarding their effect and behaviors and guiding them to make better choices. The authors also intimated that the interventions should be meaningful and should commence at an early age in order to begin the process of shaping adolescents' views and beliefs about risky behaviors prior to those critical periods when at risk behaviors are likely to become prevalent.

The effects of drug use were posited by many researchers. Kraft et al. (2001) asserted that "despite several decades of prevention efforts, large numbers of America's

youth still initiated the use of drugs at young ages" (p. 133). They also pointed to a rebound in drug use over the past 10 years that had contributed to related disorders and social problems. Kraft et al. indicated that "52% of 8th graders and 33% of students between the ages of 12 to 17" (p. 134) used drugs, that substance abusing youth were progressively taking over the juvenile justice system, and that a significant number were either utilizing treatment facilities on an outpatient basis or were in residential treatment facilities. The authors also stated that a large number of these youth took the habit into adulthood with serious consequences. Muck et al. (2001) indicated that most students who initiated marijuana at an early age and on a regular basis had progressively increased in prevalence and amounts of use.

Yuen and Pardeck (1998) suggested that drug use was threatening to the well-being of young people. Black et al. (1998) indicated that drug use was threatening the vibrancy of the society. Page et al. (2002) intimated that students who used drugs were likely to become addicted and exposed themselves to life-threatening accidents and injuries. Drug use among students could also contribute to them becoming irresponsible adults (McClanahan et al., 1998). It was also posited by Kraft et al. (2001) that drug use could lead to juvenile criminal activities.

Lowry et al. (1999) proffered that drug use is a contributing determinant to interpersonal violence. They also stated that it was associated with school violence characteristics such as weapon carrying, fighting, and absences due to feelings of vulnerability, among other factors. Brook, Brook, Zhang, Cohen, and Whiteman (2002) contended that drug use has some effect on psychosocial, physical, and cognitive functioning that could lead to long term impairment, major depressive disorders, alcohol dependence, and substance use disorders. Nagy and Dunn (1999) suggested that drug use

could impair students' ability to make judgments and place them at risk of engaging in inappropriate behaviors such as unprotected sex and promiscuity.

Research had shown that drug use could lead to aggressive behaviors. Cairns, Peterson, and Neckerman (as cited in Garrison, McKeown, Valois, & Vincent, 1993) suggested that such aggression could manifest itself in the form of fights, arguments, and poor impulse control among other behaviors. Garrison et al. indicated that aggressive juveniles were more likely to act out impulses when they were "depressed, frustrated or scared" (p. 183). Marsh, Key, and Payne (2000) indicated that drug use could have some effect on attitudes and physical competence. Yuen and Pardeck (1998) suggested that substance use could affect sleep, eating habits, hygiene, one's general attitude, and one's relationship with family and friends.

Smart et al. (1990) contended that although there were diverse and conflicting views emanating from various researches exploring adolescents' use of drugs, there seemed to be some agreement that interpersonal factors, such as family relationships and peer relationships, were prominent influences. Jenkins (2001) intimated that there was a multiplicity of factors that contributed to adolescence drug use and that identifying the "personal characteristics, emotional needs, family background, academic experiences, and extra curricular activities" (p. 223) connected with adolescents' difficulty to reject offers of drugs could contribute to successful outcomes.

Yuen and Pardeck (1998) intimated that availability of drugs is a contributory factor to drug use. They suggested that reducing and restricting advertisement of drugs like alcohol and cigarettes; limiting sales outlet; enforcing the legal age of use, in the case of cigarettes and alcohol; and imposing stiff penalties for sales to minors and use of illegal drugs could help to prevent or decrease use. If students are made aware of these

measures and the consequences attached, it could help them change their views toward initiating drug use. Yuen and Pardeck also spoke to the influence that economic disadvantages could have on leading children to drug use.

Etheridge, Smith, Rounds-Bryant, and Hubbard (2001) inferred that children are at risk of initiating drug use due to unmet needs. Yuen and Pardeck (1998) stated that family disorganization, lack of cohesion, and social isolation could lead children to initiate drug use. Without awareness and knowledge, children could be in danger of being lured by unscrupulous adults into becoming couriers or fall prey to drug use. Jenkins (2001) advised of the necessity of providing students with strategies that will help them reorder their thinking and their views to help them make better choices.

Culture was cited as another factor that could contribute to drug use. Felix-Ortiz et al. (2001) intimated that taking a cross-cultural approach to examining adolescent drug use, particularly as it affects ethnic groups in the United States, might provide some answers to the problem. They focused specifically on drug use among Mexican American adolescents in the United States and they suggested that environmental, individual, and cultural characteristics play significant roles in adolescent drug use among this population.

Felix-Ortiz et al. (2001) also suggested that immigrants who were domiciled in the United States for more than 13 years were more likely to have a drug abuse and dependence problem than those who had lived in the country for lesser periods. This was particularly instructive given the fact that the participants in this study were either immigrants or had strong immigrant connections. Felix-Ortiz et al. contended that developing awareness in students regarding the risks connected to drug use could be beneficial. They also stated that training parents to manage substance use and to be good

role models within the home environment could be helpful.

Guthrie and Flinchbaugh (2001) seemed to give support to the view that cultural factors might lead to drug use. They suggested that such factors as diversity, age, race, ethnicity, and culture are all crucial components to be considered in dealing with drug prevention. They also indicated that gender plays a role in drug use and that specific intervention programs for girls are necessary to promote physical and emotional safety. This could be achieved by encouraging girls to talk to their peers and adult females, by increasing their comfort levels and engendering nurturing, and by promoting trust and interdependence with peers and others. Promoting respect, acceptance, tolerance of cultural differences and similarities, encouraging their participation in designing the program, encouraging interaction through discussions and involvement of family and others, and encouraging critical comments were also mentioned by Guthrie and Flinchbaugh.

Guthrie and Flinchbaugh (2001) also disclosed that the early years of adolescence were the most vulnerable to risk-related behaviors. Other researchers also supported the view that culture can influence drug use (Kulis et al., 2002; Westburg, 2001). In addition to the culture factor, Allen and Page (1994) intimated the possibility of a race factor, purporting that Whites appeared to have a higher at risk rate for drug use than Blacks.

Lack of communication with parents was another factor suggested for drug use among students. In exploring the connection between adolescent's use of cigarettes, alcohol, marijuana and other drugs, and the level of communication they had with their parents, guardians, and peers, Kafka and London (1991) concluded that there was some relationship between communication and use. They contended that parents present a moral authority figure in ways that friends do not and that having an open avenue of

communication between adolescents and parents suggested a reciprocal care and intimacy that could serve to discourage or constrain drug use.

On the other hand, it was believed that friends held no authority over each other and were viewed as equals who might or might not influence use. Lambie and Rokutani (2002) indicated that parent-child communication, support, nurturance, acceptance, and the inculcating of sound family values were positively linked to abstention.

Peer pressure was a noted contributor to drug use initiation. Reinzi et al. (1996) suggested that adolescents often experimented with drugs in order to gain peer approval. Reinzi et al. also noted that girls who use drugs face a higher risk of social rejection than boys as they might be perceived as being "flawed in performing both their traditional role as a nurturing care-giver at home and as a keeper of high moral standards for society" (p. 340).

Reinzi et al. (1996) contended that teens' behavior could be negatively influenced by their overstated acceptance of their peers, making it necessary to help them develop a more realistic view of peer acceptance of substance abuse. Reinzi et al. also disclosed that a strong, accessible support system consisting of good role models could help to reduce students' perceived pressure to use drugs. Ellickson et al. (1998) supported the view that peer influence was a risk factor for drug use. They saw the link as a social one in which friendships with deviant peers who had little interest in school, were strengthened, thereby resulting in lack of interest in school and poor achievement that could eventually lead to dropping out of school.

There were multiple problems--social, educational, health, and moral--attached to drug use of which the children in the setting might not have been aware. Elder et al. (2001) stated that there was a wealth of evidence to support the dangers that alcohol use,

cigarette smoking, and marijuana use pose to adolescents' health. Carroll (2000) also spoke to the health issues attached to students' drug use and indicated that such use could eventually lead to addiction. Lambie and Rokutani (2002) suggested that substance abuse issues generate systems problems at the individual, educational, corporate, and societal levels. Systems perspective essentially held the view that adolescents' substance abuse was symptomatic of a dysfunctional system--family, school, and community--and inherently filled a void within the system.

Lambie and Rokutani (2002) believed that it was critical to understand the enviable position of educators in early intervention strategies for adolescents. They alluded to the importance of understanding the severity of the problems of the adolescent; the importance of recognizing that the problem does not belong only to the adolescent user but encompasses the wider system that plays a pivotal role in developing and maintaining the problem.

Lambie and Rokutani (2002) suggested that it would be futile to treat the individual without attending to the overall "systemic dysfunction" (p. 358). Lambie and Rokutani stated it was also important to recognize that because many forces converged and contributed to the adolescents' drug abuse problem, it might require numerous "interventions to facilitate change" (p. 358). The authors further intimated that it was only through a thorough understanding on the part of educators of "substance abuse and a conceptualization of family systems" (p. 358) that they would be able to help their students to abstain from or cease drug use effectively.

Sutherland and Shepherd (2002) intimated that young people have unrealistic beliefs about drug use and that such beliefs are important with regard to predicting initiation of drug use, the severity of use, and the likelihood of ceasing to use. They

suggested that it is important to examine children's motivating force in order to develop effective interventions. They indicated that multiple factors influence children's decision to use drugs; for example, parental attitude toward drug use and parents' indulgence in drug use. Sutherland and Shepherd recommended that efforts be made to break through adolescents' views that they are invincible, a task that was believed to be quite daunting. They suggested that educators focus on reducing "unrealistic positive expectations" rather than "reinforcing negative expectations" (p. 180).

Garnier and Stein (2002) suggested that the experiences learned inside the home from parents and family members and those learned outside the home from friends converge to influence development. They also contended that teens' problem behaviors reflect not only this general influence but their own individual value orientation and preferences, and that drug abuse intervention strategies should target the entire group, child, family, and peers. They postulated that strategies planned to help adolescents make choices and decisions with regard to their lives should consider the social influences in their environment and in their personal history as well as their own values and those of their families.

Fox and Forbing (1991) categorized substance abuse as both a health and a disciplinary problem that contribute to reduced achievement. They stated that the ability to distinguish behavior associated with a learning handicap and those associated with substance abuse require an evaluation of the potential causes and the situation in which the behavior is displayed. They intimated that in order to derive appropriate treatment and instructional strategies, it is necessary to classify students into different areas, those with a learning handicap, those with chemical impairment only, those with both a learning handicap and a chemical impairment, and those with parents who were drug dependent.

Fox and Forbing (1991) also pointed to the importance of examining academic and behavioral history in relation to any sudden change and decline as this could be a signal alerting to the use or abuse of drugs as well as analyzing students' behavior against a recommended drug-use checklist. They suggested that students who are diagnosed as using drugs should receive intervention and treatment for the substance use before any attempt is made at educational or behavior remediation.

Schlozman (2000) suggested that many adults fail to take youth substance abuse seriously based on their own youthful encounter with drugs. The author intimated that such careless attitude could send the wrong message to a young person as it pertains to drug use. Stevens and Griffin (2001) stated that a significant number of young people who use mind-altering substances become involved in high-risk behaviors, particularly violence and promiscuity.

Guthrie and Flinchbaugh (2001) argued that drug use might cause diminished self-efficacy, especially among girls. That is, they might lose their ability to perceive themselves as having control in specific social situations. Guthrie and Flinchbaugh took the view that self-efficacy created an "essential bridge between thoughts and actions" (p. 361). With particular reference to marijuana, Fox and Forbing (1991) suggested that its use had a negative impact on the adolescents' ability to "comprehend and to use metaphors and similes" (p. 24) and its use contributed to slower brain wave patterns. The authors intimated that marijuana use affects thought processes and reduces retention, concentration, and recall as well as the ability to focus on complex intellectual tasks. They also suggested that prolonged marijuana use could lead to mental confusion, impulsivity, and hallucinatory episodes.

Dupont (as cited in Fox & Forbing, 1991) contended that "the potency of the

THC--the intoxicating agent in marijuana" had increased significantly since the 1970s and that marijuana's "complexity--421 individual chemicals from 8 different classes" (p. 27) had increased considerably. The authors also pointed to the high risk of adolescents becoming addicted because of the underdevelopment of their brain and nervous system. Sander (1998) intimated that there is a significant connection between marijuana use, decreased cognitive ability, and a reduction in the rates of high school graduation.

Garrison et al. (1993) advanced the view that there is some cognitive malfunctioning resulting from drug use. This manifested itself in several behavioral changes. For example, the user might become aggressive and show disrespect and disregard for self and others. They also cited drug use as being associated with suicidal ideation, intent, plan, and attempt, although becoming suicidal was not seen as gender specific nor was it linked exclusively to drug use.

Based on the literature, it was evident that the need for a drug education program was warranted in the setting to increase students' knowledge and to help them achieve age-appropriate established expectations for drug awareness. Yuen and Pardeck (1998) intimated that knowledge and information programs help to increase students' knowledge about the nature and consequence of drug use. Bangert-Drowns (1988) stated that there was a wealth of research to substantiate the view that substance abuse education was not being effectively utilized in the schools. He suggested that practitioners needed to embrace the seriousness of the situation and make concerted efforts to finding the key to successful preventive education.

Fox and Forbing (1991) indicated that special education students are particularly susceptible to substance abuse due to several causal factors. Although children with special needs did not form part of the present study, the authors' contention relating to

prevention strategies among students remained applicable. They suggested educating students about drugs and their effects, heightening their awareness and increasing knowledge about the circumstances contributing to drug use and the problems attached, building emotive skills, encouraging and developing recreational skills, providing good role models, and improving communication and support systems.

Other researchers also alluded to the benefits of strong family and peer and community support in reducing and deterring drug use among adolescents. They indicated that where there is open communication, respect, reasonable boundaries, and effective role models, adolescents will be less likely to become engaged in drug use (Garnier & Stein, 2002; Guo, Hill, Hawkins, Catalano, & Abbott, 2002; Kafka & London, 1991; Smart et al., 1990).

Chapter 3: Anticipated Outcomes and Evaluation Instruments

Goals

The goal for this applied dissertation was that private school preadolescent students would achieve age-appropriate established expectations for drug awareness.

Expected Outcomes

The following outcomes were projected for this applied dissertation:

1. A drug awareness program would be developed and 33 of 36 parents would agree their children had been provided with the facts about drugs.

2. The eight teachers would agree that the drug awareness curriculum reduced the risk of drug use by their children.

3. The principal and eight teachers would agree that students had information to help them deal with peers who used/abused drugs

4. Eleven of 12 students would agree that their parents often discussed issues relating to drug use/abuse with them.

To achieve the listed outcomes, the writer utilized several measures. A pretest 20-item drug awareness questionnaire was administered to the students prior to the intervention, and at the end of the intervention, the same questionnaire was utilized as a posttest. The pretest instrument was used to assess how students felt about drugs and explored their knowledge of how drugs (alcohol, tobacco, and marijuana) affected their ability to learn and make decisions. The questionnaire was divided into two sections, namely, feelings, which consisted of eight statements, and drugs and learning, which consisted of 12 statements (see Appendix D).

A midpoint test consisting of 10 sentences focused on myths and facts about marijuana (see Appendix E) and was given midway in the intervention. The students

were reminded of the difference between a myth and a fact prior to the test. Four fact-based quizzes (see Appendix F) were given at various points during the intervention.

The first quiz was a sentence completion exercise in which students matched a phrase in Column A with one in Column B to complete the sentence. Quiz 2, fill in the blanks, required students to select the correct word from a prescribed list to complete the sentence. In Quiz 3, the letters of 10 drug-related words within the students' vocabulary were jumbled and students were required to unscramble the letters to spell the correct word. The final quiz, which represented the final test, focused on decision making and was adapted from the Too Good for Drugs Workbook (Mendez Foundation, 2004). Students read short, simple scenarios and stated in writing how they dealt with each.

Chapter 4: Solution Strategies

Discussion and Evaluation of Solutions

The problem to be solved in this applied dissertation was private school preadolescent students were not achieving age-appropriate established expectations for drug awareness.

Achieving the desired outcome in the target group would depend largely on the change strategies employed in the process and the attitude of all the stakeholders towards embracing change. Codori (1999) indicated that in dealing with drug abuse, there were no prescriptive guidelines that might be applied from day to day and that the change agent had to be open to dealing with constant changes in order to arrive at feasible strategies in achieving the long-term goal of reducing or deterring use.

Codori (1999) detailed some relevant steps that change agents could take in attempting to effect changes; for example, contracting with parents and adolescents, disseminating pertinent information to relevant stakeholders, and putting structures in place for constant monitoring and evaluation of the program. Codori also stressed the responsibility of change agents like educators in ensuring that adolescents were provided with the tools to help them "lead responsible and productive lives and be good role models for others" (p. 9).

Kantor et al. (1992) indicated that school-based interventions could reap high results in trying to effect change among drug users. They suggested that this would be effective because teachers had a high interaction level with students and would be better able to discern and identify early signs relating to drug use behaviors. Some of these early reliable indicators were reduced concentration, change in attitude towards school work, and decreased grades, among others. Kantor et al. also intimated that it would be highly

desirable for teachers to receive training on being caring and careful in their assessments and observations. This would enable them to intervene early in the students' drug use so that the requisite professional referral, evaluation, and treatment could be made. King et al. (2001) suggested that devising creative and workable interventions within the school system would serve to promote socially acceptable behaviors and prepare students to lead productive lives and become good role models for others.

Senge (1994) believed that attitudinal change might be effected if individuals could be encouraged to buy into a vision. He said that very many persons were in a state of compliance, they did what was expected of them, and they supported the vision to some extent but they were not really attuned or committed. Young people who were at risk of using drugs needed to be encouraged to buy into a vision of change and to do so with vigor and commitment. Senge stated this would involve change agents teaching them how to revise and reorganize their thought processes in order to help them discover the "passion, excitement and energy" (p. 221) to which he alluded and which resided in each of them.

Lowry et al. (1999) spoke to the need for "regulatory and environmental strategies combined with education and counseling and community outreach programs" (p. 354) that could serve as useful guides for promoting socially acceptable behaviors and preparing students to lead productive lives and be good role models for others. They postulated that these strategies would demand the cooperation of students, parents, educators, community members, law enforcement, and health and government professionals to facilitate effective change.

Codori (1999) alluded to the fact that communities have come to expect the school to develop appropriate disciplinary measures and guidelines for controlling

students' drug use. King et al. (2001) pointed out that effective change strategies would depend on providing the youth with useful and practical information that they could put into immediate practice. They made reference to the Safe and Drug Free Schools and Communities Act, which lent support to programs involving parents and others in the thrust to deter drug use among young people.

Gottfredson and Wilson (2003) suggested in a meta-analysis that programs focusing on high-risk populations were just as effective as those targeting a universal population. They indicated that those programs with a cognitive behavior focus were more effective with a high-risk population in reducing drug use than with general populations. They also stated that intervention programs designed for students of middle schools were more effective than those programs planned for elementary and senior high schools.

Gottfredson and Wilson (2003) also mentioned that the length of an intervention program did not assure its effectiveness; neither was the efficacy of the intervention program dependent on the function of the individual responsible for offering the program. They, however, intimated that certain situational activities favored peer involvement in the delivery process. The observation was also made that there are obvious benefits to be derived when teachers and peers are involved in program delivery, that programs are most effective when delivered exclusively by peers, and that when the delivery is shared between peer and teacher, the peer delivered component is not as effective.

The family was proffered as an important change agent. Berg (as cited in Garnier & Stein, 2002) intimated that young people's values, attitudes, and principles are based on those of their family, and that family drug use has consistently been associated with adolescent drug use. The authors claimed also that mothers' drug use is more strongly

related to children's drug use because mothers spend more time with their children. As a consequence, Garnier and Stein suggested that change strategies included programs that examined changes in parents' values, the adolescent's perception of parental values, and parent-child interactions.

Kafka and London (1991) intimated that there is some relationship between illicit drug use and lack of closeness to parents. Wills, Sandy, Yaeger, and Shinar (2001) pointed to the effects of family risk factors. They also expanded the theory by suggesting that susceptibility to drug use could be influenced by the children's temperaments and the family environment. Given these views, it appeared that the suggestions of Guo et al. (2002) that strong parental bonds serve as a protective factor to adolescent drug use has merit. They warned that this protective factor is less dominant after age 18 and that increased peer influence becomes evident. Guo et al. indicated that programs geared toward effecting change should start early and should continue throughout the adolescent stage into the 20s.

Kantor et al. (1992) identified certain factors that are necessary for a change agent to cultivate in order to effect change: (a) developing the confidence to identify behaviors associated with drug use/abuse, (b) having the capability of providing factual information to drug users/abusers, (c) developing a heightened awareness of the importance of helping young people who have a drug use/abuse problem, (d) being able to access resources that will have high usefulness in dealing with drug users/abusers, and (e) being open to entertaining divergent points of view with regard to what is best for the drug user/abuser. Tubman, Wagner, Gil, and Pate (2002) also spoke to the need for change agents to be familiar with current practices in order to plan for effective change. Tubman et al. alluded to the fact that ultimately the process of change will be largely self-directed,

and as such, the change agent should recognize that he or she was only a facilitator to the process.

Fox and Forbing (1991) suggested that parents need to be careful that they are not sending mixed messages to their children through modeled behaviors as modeling is the most potent teaching tool. It is for this reason that it becomes important to maintain an awareness of behavioral changes that can be associated with drug use. Fox and Forbing intimated that research done on the relationship between drug use and adolescent academic achievement showed that performance was significantly reduced after use began.

Harris (1996) also spoke to the benefits of impacting adolescents' behaviors through positive modeling. Lambie and Rokutani (2002) alluded to the importance of keeping abreast of adolescent behavioral changes in order to recognize the warning signs of drug use so that early interventions could be implemented. They suggested that tracking behavioral changes could assist in early identification of the warning signs of drug use. It could also promote the establishment of therapeutic relationships and provide support systems for the family in order to effect change and create links between the various bodies, school, family, community, and treatment agencies.

Page et al. (2002) suggested that adolescents' beliefs and attitudes with regard to drug use are largely influenced by the beliefs and attitudes of their peers. As a consequence in tracking attitudinal and behavior changes, peer relationships should be examined to determine the level of impact, if any. The authors intimated that young people should be provided with factual information with regard to peer drug use to enhance behavior modification. This is particularly important because it has been shown that educational approaches that reveal that drug use is not the norm among adolescent

has been effective in lowering drug use. Bangert-Drowns (1988) intimated that when peers are the chief source of imparting knowledge, the impact on attitudinal change is greater. Webster et al. (2002) suggested that attitude drives behavior; hence, a change in an adolescent's beliefs toward drugs and its use could be a deterrent to use or could contribute to decreased use.

Matching adolescents' stated intent to use drugs with their actual level of use (Sutherland & Shepherd, 2002) could enable stakeholders to keep abreast of changing patterns based on altered beliefs. This might also help to steer young people towards examining any unrealistic beliefs they might have about future drug use. Pluddemann, Theron, and Steel (1999) proffered that youth drug use is influenced by their attitudes, perceptions of control, and moral obligations and attempts to find themselves. Keeping abreast of adolescents' changing attitudes and behaviors associated with substance use is, therefore, important given the connection between drug use and the various negative outcomes including suicidal ideation and intent (Garrison et al., 1993).

Schlozman (2000) implied that drug use should not be seen as being responsible for all changes in behavior but because it is high on the list of possibilities, those who work with adolescents should not miss the opportunity to intervene and connect with young people to help them wade through the complex issues associated with drug use. The author mentioned that adolescents appeared to hold two attitudes toward drugs: the risk they perceive to attach to the drugs and the acceptance of the drug by others. If they could be persuaded to respond to the connection between risk and acceptance that ultimately motivated their behavior, then it might be possible to alter significantly their attitude and behavior toward using drugs.

Black et al. (1998) appeared to favor the monitoring of behavioral and attitudinal

changes. They indicated that various types of intervention would suit different target groups. They suggested, for example, that interactive school prevention programs have been proven to be effective for reducing drug use among middle school students.

An Action Kit on strengthening families provided by Join Together (Boston University School of Public Health, 2001) voiced the need to monitor attitudinal and behavioral changes, indicating that this could serve to heighten awareness and develop collaboration within the community on the effects of drug use. High value was placed on collaboration between various agencies, child welfare organization, prevention and treatment agencies, community organizations, schools, and policy makers, among others, as essential to arriving at workable solutions. It was indicated that the collaborative efforts of these entities in tracking attitudinal and behavioral changes could contribute to building strong, healthy, and safe children through the support of strong healthy families. The point was also made that when a positive impact is made on the lives of the children, this could redound to the benefit of the parents.

Schlozman (2000) reminded that schools are at the forefront of working with young people from a prevention and intervention standpoint, and, as such, educators need to find a compromise that will best appeal to this impulsive group. He indicated that students who are prone to risk taking or who continuously believe the need to seek out new situations are likely to initiate drug use. The author suggested that because it is not possible to predict which young person will develop drug-use problems, teachers have the responsibility to act promptly at the initial signs of any sudden, negative behavioral changes. He also suggested that educators utilize class interactions and individual attention to encourage frank and honest discussions on the subject in order to give young people an opportunity to examine their own attitudes and leanings towards

experimentation or sustained use.

Several strategies were proffered in the literature with regard to finding a solution to help children refrain from initiating drug use. Lambie and Rokutani (2002) suggested utilizing the family system. They mentioned the re-engagement of the family and pointed to the negative results that could accrue as a consequence of disengagement between parents and children within the family unit. The authors suggested that a change in the behavior of one person within the family is usually accompanied by an accommodating change in other members of the family, indicating that an adolescent who is at risk of abusing drugs impacts every individual member of the family in a negative way.

Lambie and Rokutani (2002) stated because systems theory subscribes to an "expanded view of identification and intervention" (p. 356), the modification strategies have to embrace not only the at-risk child but also need to address the broader picture, which is the family. The authors proposed that for the re-engagement process to be effective, the parent, teacher, or practitioner need to understand that the problem does not belong only to the student who is at risk of using drugs but encompasses the wider system that is aiding, abetting, and maintaining the problem. Lambie and Rokutani suggested that in order to modify the behavior and solve the problem, the entire systemic dysfunction has to be overhauled using multiple interventions to facilitate and sustain the change.

Andrews et al. (1995) proffered the Adolescent Transition Program, a cognitive-behavioral prevention program specifically designed to help parents reduce behaviors in at-risk adolescents. The program utilizes a parent and teen-based approach that focuses on communication, limit setting, problem solving, goal setting, and dealing with negative peer influences. These were seen as essential components that could help to

change the attitudes and behaviors of young adolescents who were using drugs or planned to use drugs.

Andrews et al. (1995) were of the view that when parents encourage their adolescents to have open communication, it provides a safety net, an open forum where they can express their thoughts and feelings and receive feedback on the consequences of their actions. Goal setting would help to encourage the development of strategies that would build resolve, avoid relapse, and help them deal with setbacks that might promote relapse or weaken resolve. It would bolster self-efficacy for dealing with new threats to using or quitting and help the young person to feel good about self, thereby boosting self-esteem. It would also allow the student to conduct a self-evaluation focusing on his or her successes and failures on the journey to abstinence.

Stevens and Griffin (2001) also alluded to the safety net that young people need to help them resist the temptations of drug use. When adolescents are directed towards setting specific goals and are provided with the tools and encouragement to consolidate the nonusing behaviors and incorporate them into their daily routine, it is less likely that they will revert to at-risk behaviors.

Utilizing the Adolescent Transition Program as a solution strategy through attitudinal and behavior modification demands that attention be given to some critical areas delineated by Andrews et al. (1995). Some of these were ensuring that the program duration, contact hours, and implementation were adequate; ensuring proper management of parental involvement, including proper training and cooperative learning strategies; and addressing individual skills building.

Andrews et al. (1995) contended that if the strategies mentioned were effectively employed, they would not only contribute to solving the problem through avoidance of

delinquent and at-risk behaviors but would also have a positive effect on parent-child relations because parents would be better equipped to manage their children's behavior problems.

Gruskin, Plafker, and Smith-Estelle (2001) proposed the health and human rights approach as a solution strategy. They strongly indicated that because young people come from diverse backgrounds, have varying life experiences, are from different cultures, and each experience life differently, these factors, singly or collectively, have some impact on their vulnerability to harmful drug use. The authors indicated that youth substance use can have a negative impact based on the extent to which their rights are perceived to be represented and fulfilled. They suggested that violation or neglect of human rights can increase the risk of poor health outcomes.

Gruskin et al. (2001) also indicated that there is a need for proper legal framework, more structured efforts at controlling drug supply, and clearer policies on consequences of use. They also noted that if young people believe that they are respected and protected, they will be less vulnerable and less likely to be at risk for drug use.

Another solution strategy considered was the utilization of Guided Self-Change (GSC), an innovative drug prevention program advanced by Tubman et al. (2002) to be effective with adolescents from diverse populations. Tubman et al. described GSC as a "brief skills-oriented motivational intervention" (p. 208) that focuses on building skills and empowering clients. It is presented as being cost-effective and available in Spanish.

Although the intervention is specifically used with Mexican adolescents who have a drug problem, it is recommended for all cultures and for those at risk of initiating drug use. The intervention aims at changing behavior by providing adolescents with knowledge and skills that could enable them to understand their behavior problems and

help them to work through the barriers that could be hindering change in their behaviors (Tubman et al., 2002).

GSC encourages young people to make a decision to change, to set goals for change, to determine personal triggers to drug use, and to identify the positive as well as the negative consequences attached to use. Tubman et al. (2002) reasoned that the motivational framework attached to GSC allows it to be highly effective in enabling change whether it is used by itself as an intervention or as part of a broader treatment program.

An intervention program such as the Drug Abuse Resistance Education (DARE) is proffered as having high appeal for sustaining the change. Ennett et al. (1994) postulated that it is the most prevalent prevention program and is the only one named in the "1986 Drug Free Schools and Communities Act" (p. 1394). Despite the shortcomings of the program noted by Ennett et al., it is reputed to be worthy based on its comprehensive educational approach in helping children to recognize the pressure to use drugs, increase their self-esteem, and improve decision-making skills. Also, the DARE program is said to promote interplay between the school, community, law enforcement, and other agencies (Yuen & Pardeck, 1998) in the struggle to find workable solutions to minimize and ultimately deter drug use among the youth population.

Other solution strategies were suggested by Blake et al. (2001), Codori (1999), and Westberg (2001), who encouraged the use of interactive programs that teach the skills required to refuse drugs, develop interpersonal competence, and build self-worth, thereby increasing self-esteem. Some like Kafka and London (1991), McClanahan et al. (1998), and Yuen and Pardeck (1998) suggested utilizing protective factors, family, schools, and nonusing peers, as well as providing love and support and encouraging open

communication and feedback. Others like Felix-Ortiz et al. (2001) and Winkleby, Feighery, Altman, Kole, and Tencati (2001) took the position that addressing culture and diversity could be a useful solution strategy.

Finding new solutions to deter and discourage drug use and advancing change in young children's attitudes and behaviors is an ongoing challenge for those who work with at-risk populations, particularly those who use drugs and those at risk of initiating drug use. Stakeholders have to remain focused and resolute in their efforts to discover new solutions as the problem becomes more complex and challenging. As Schlozman (2000) aptly stated, finding other solutions is critical because the "just say no" message on its own is inadequate.

Finally, the research suggested that the matter of drug use and gender needed to be further examined. Blake et al. (2001) expressed the view that in searching for solutions, the matter of gender needs to be addressed to ensure that the programs developed have positive impact on both boys and girls.

Description of Selected Solutions

In an effort to build teachers' confidence and competency in teaching about drug-related issues, a workshop was held to inform them of effective strategies they might use to incorporate the topic of drugs in their subject areas. Kantor et al. (1992) referred to the paucity of programs that discuss the role of teachers as interventionists with regard to drug use. They alluded to the importance of ascertaining teacher competence to deal with the subject, teacher response to students' drug use, and the extent to which teachers incorporate drug education in their subject areas.

The workshop addressed various teaching approaches that might be used to effectively deliver the message of drug prevention to students. Various methods, such as

role-playing, supervised student/student exchange, teacher-led activities, and motivational talks, were done. For example, a teacher-led activity portrayed a drama class in which a group of students (played by the other teachers) role-played situations that might be stressful to a child--taking a test, going to the doctor, changing school, or failing grades--situations that might lead to drug use. Healthy ways to cope with stress were highlighted: talking to a counselor or responsible adult, taking long walks, and listening to music, among others. The materials for this exercise were taken from the Too Good for Drugs (Mendez Foundation, 2004) curriculum, Coping With Stress.

Another scenario placed a student at risk, for example attending a party where there was no adult supervision. Poetry and music were utilized to show how the resulting peer pressure to use drugs in such a situation might be resisted. A short video detailed various situations that propelled students to drug use (poor communication at home, peer pressure, weak role models, and poor choices, among others) and suggested prevention strategies that teachers might utilize. An example was, providing students with strong social and decision-making skills that would enable them to make good choices. The writer distributed drug-related handouts on promoting a drug-free community and choosing friends carefully. Practice and peer feedback might help teachers to feel more confident and competent to impart knowledge about drugs to their students.

Although teachers incorporated some aspects of drug education in their subject areas, for example, including information about drug trafficking in their geography lessons or writing simple poems that might discourage teen drug use as part of their language arts activity, the major responsibility of educating the students on drug issues rested with the health science teacher. Laursen and Brasler (2002) indicated that providing information to delay first use of drugs is likely to meet with some success if

addressed through health education.

The writer met with the health science teacher on a weekly basis to discuss pertinent topics that might be addressed with the students. The topics dealt with the importance of providing drug-related information at an early age, development of social skills (effective communication, especially body language), choice of friends, peer pressure and resistance and decision making, triggers to stress and how to cope with stress, possible consequences of poor choices, effects of loneliness, low self-esteem, and fear. Health and wellness were also discussed: the emotional and physical effects of drug use, depression, stunted growth, cancers, respiratory diseases, and impaired faculties. The educational factors were stressed: reduced interest in school, loss of friends, failing grades, and dropping out, among others. The writer and the health science teacher also spoke about general risk factors, school-level risk factors, protective factors, the benefit of parent/teacher linkages, crisis intervention, and the role of parents and teachers in deterring drug use.

The writer provided the health science teacher with printed materials on drugs in the society, children and early drug use, how to drug proof your children, underage drinking, and facts about marijuana. The health science teacher also committed to individual research on the topic to enable her to become more familiar with its prevalence, causes, prevention methods, and resources for deterring and reducing drug use, among other factors. At monthly staff meetings, the health science teacher provided her colleagues with a drug prevention tip of the day. The tips centered on parental guidance and communication, for example, "drug kills, find time to talk to your kid." Tips were often shared with parents at appropriate forums. Teacher feedback at this forum informed others of the extent to which they had incorporated various drug-related

topics in their subject areas as well as the extent to which they believed the children benefited from the exchange. The teachers were encouraged to utilize the strengths-based approach posited by Laursen and Brasler (2002), that is, to help students focus on the power within them to deter drug use and refuse offers of drugs.

The drug education program that was presented to the students by the writer helped them achieve age-appropriate established expectations for drug awareness and was incorporated into the school's curriculum. The 10 units presented in the Too Good for Drugs curriculum were spread over the health science curriculum and taught by the health science teacher to the target group with different sections being presented for at least 30 minutes each week. The accompanying Too Good for Drugs workbooks consisting of 10 drug-related exercises were provided for the students. The exercises covered decision making, stress relief, health risks of various drugs, and communication. The program was ongoing and the school ensured that it was updated as required through input from parents, teachers, and students. The program adhered to state or national regulations governing teaching of the subject.

Parents were provided with the facts on drugs, such as early initiation; prevalence of use; contributory factors (poor role models, lack of parental guidance); and types of drugs and harmful effects, at a parent-workshop. The information reinforced the importance of helping children to set goals and make informed choices. In order to ensure that parents continued to talk to their children about drug-related matters, there was also a 20-minute slot at each parent-teachers' meeting where a different topic relating to drugs was discussed. Topics focused on physical and behavioral signs of drug use and were presented by suitable resource persons from the school and community who were knowledgeable in the subject. Other topics discussed were parental modeling and drug

use, the importance of family time to deter drug use, communicating with teens, respecting children's feelings, and the value of praise, among others.

Parents were provided with information on how to detect changes in behaviors that could suggest drug use initiation. For example, change in attitude, habits, school performance, weight gain or loss, and watery eyes, among others. Parents had an open door access to the principal or health science teacher to discuss issues relating to drugs if they felt unsure about how to discuss this with their children. Parents were provided with information such as telephone numbers and addresses of resources/agencies where they might go for help in the event they suspected their child might be using drugs or was at risk of initiating use.

There was support to be found in the literature for the solutions noted above. Bangert-Drowns (1988) suggested that the classroom is an excellent channel for disseminating information and there is the potential for such information to be useful if imparted correctly and by the right person. Harris (1996) intimated that in the past, drug education programs were either unsuccessful or met with moderate success in preventing or dissuading drug use among adolescents because they focused on "scarce tactics" (p. 115). She indicated that present-day programs had met with more success because these programs focused on "understanding adolescent psychology" (p. 115). Harris also suggested that utilizing peer educators in the delivery process had helped in providing a positive influence in deterring adolescent drug use.

Gosin et al. (2003) also alluded to the ineffectiveness of prevention programs that focused only on imparting information in a didactic fashion. They, however, supported the utilization of this approach in association with affective education and social skills training. Gosin et al. supported educating young people about the dangers of drug use and

suggested that this be done with a cultural focus. They disclosed that students would be more likely to respond when they saw themselves in the examples presented and be able to relate to the prevention messages. Webster et al. (2002) intimated that knowledge-only programs needed to be augmented by those with a psychosocial influence in order to be effective.

Yuen and Pardeck (1998) established that drug use continues to be a serious issue contributing to innumerable social problems. They provided support for the positive impact that drug education via the mass media, communities, and schools have on effecting reduction in drug use among adolescents They also spoke to the benefits of knowledge/information programs in increasing adolescents' knowledge about drug use, although they indicated that such programs would be more effective if they were combined with other social influence programs.

Fox and Forbing (1991) inferred that there is some benefit to be derived from providing adolescents with education about drugs and their effects. Fox and Forbing suggested that there is still a great vacuum of "misinformation and mythology" (p. 27) and a general dearth of foundational knowledge about drugs and its effects on the brain and body among the youth population. Fox and Forbing also pointed to the insufficiency of knowledge on the part of teachers, especially if they have not kept abreast of new developments associated with the subject. Lambie and Rokutani (2002) alluded to this insufficiency of knowledge on the part of school counselors, which limits their ability to identify adolescent drug users and negatively impacts their delivery capability with regard educational approaches.

Andrews et al. (1995) favored knowledge-based programs that were combined with skills training based on "pro-social fostering, limit setting and problem solving" (p.

481) and which utilized parents and peers in the delivery process. It was pointed out that the DARE program was also designed to deter drug use among adolescents by providing them with vital information about pressure to use drugs, how to resist offers of drugs, and alternative activities to using drugs, among others (Ennett et al., 1994; Yuen & Pardeck, 1998). The importance of raising awareness about the effects of drugs among adolescents, parents, and communities was also highlighted by Join Together (Boston University School of Public Health, 2000).

Several models emerged from the literature and several approaches were posited. The importance of utilizing the correct person to deliver the program and using an effective delivery method was highlighted by many researchers (Gosin et al., 2003; Griffin et al., 2001; Lambie & Rokutani, 2002; Yuen & Pardeck, 1998). Although it often appeared that those who continued to work with drug-using adolescents were losing the battle, the struggle must continue. The children of today are tomorrow's leaders and it is the responsibility of those who care to continue to explore new measures and to develop innovative strategies to deal with the problem. Page et al. (2002) stated that there are many misconceptions among adolescents regarding drug use and that the onus rests on all stakeholders to ensure that these inaccuracies are addressed by providing the youth with the facts.

Report of Action Taken

The writer met with the principal and teachers and verbally thanked them for the opportunity to work in the setting and expressed her appreciation for their cooperation. She gave an overview of the actual program and the Too Good for Drugs model, which was utilized in the learning process. This covered the objective of the program, the time frame involved, the responsibilities of all the stakeholders, and a synopsis of the various

topics covered in the Too Good for Drugs curriculum (goal setting, decision making, bonding, identifying and managing emotions, and communicating effectively).

The writer further discussed detailed time for conducting the intervention, 3 hours each week over a 6-month period. She responded to questions from the principal and staff, for example how parent feedback might be handled, and the efficacy of the curriculum to be utilized. The principal, health science teacher, and staff each responded to an informal interview that explored their teaching experience, curriculum content, teacher/parent relationship, parents' awareness of drug use among teens, and how students might benefit from the intervention, among others.

The writer met with parents and gave a similar overview of the program, discussed the time line attached to the program, distributed and collected informed consent and assent forms, and addressed parent's comments and concerns that had to do with confidentiality and their pleasure that their children would be exposed to such a program. Parents were kept apprised of their children's participation at Parent-Teacher Association meetings.

The writer met with the students and expressed appreciation for the opportunity to work with them. She explained that the purpose of the program was to help them stay away from drug use, and she spoke briefly about the lessons contained in the Too Good for Drugs model that was used as resource material. The lessons focused on helping them to set goals, to make healthy choices, to choose friends wisely, to become involved in their communities, to manage their emotions, and to communicate effectively.

The writer distributed and collected assent forms and informed students of their rights as participants, for example, that they might decide not to participate in the program or might leave even after they started without fear of getting into any kind of

trouble. She addressed questions, concerns, and comments. For example, she dealt with nonpayment for participation and advised them that they might be presented with a certificate of participation at the end of the program. The writer conducted an inventory of the available equipment at the facility (video recorders, tapes, television, and computers) to ensure that they were in working order.

The writer assumed the role of teacher/facilitator for the purpose of conducting the intervention and was referred to as the writer during the process. Prior to administering the pretest questionnaire, an "ice breaker" session was held. Students gave a brief profile of themselves and their families. For example, they stated their names, place in the family, likes and dislikes, favorite person, favorite sport, and one important achievement. They were told to divulge only those things that made them comfortable. The writer assured them that whatever they shared would be held in confidence.

The students also asked questions of the writer. For example, they wanted to know if the writer might be teaching them any other subject and others wanted to know her country of origin. At the end of the ice breaker, each student was assigned a number and advised to use this number in lieu of his or her name on all assignments done during the period of intervention. The writer stressed the importance of never placing their names on any assignment given in order to protect their identity from others and honor confidentiality.

The pretest questionnaire (see Appendix D) was distributed and the writer read the instructions aloud to the students, twice. After ascertaining that everyone understood the instructions, they were asked to complete the sections requiring them to insert the date, their age, and gender and to circle the word "Pre," signifying the pretest. The writer then read through the 20 items, made clarifications as necessary, and ensured that the

students understood the content. They were told to circle the letter "t" if they agreed with the statement or the letter "f" if they disagreed with the statement.

The students were asked not to speak during this time or shout out their choice but to quietly and privately make a choice of "t" or "f." Students were given 30 minutes to complete the questionnaire. At the end of the 30 minutes, the students were asked to double check the questionnaire to ensure that they had not missed any of the questions or inadvertently placed their names on the questionnaire. Each student was required to lay the completed questionnaire face down at the end of their desk. The completed questionnaires were then collected by the writer who expressed her thanks to the students for completing the survey.

The responses were later grouped, coded, and recorded. Some areas of strengths noted were that students had some familiarity with the names of drugs; they were also able to give examples of physical dangers that drug use posed. They appeared to have limited knowledge with regard the emotional and educational dangers of drug use. These observations enabled the writer to tailor the intervention to the particular needs of the participants.

As a preliminary to the first module, the writer reminded the students that the overall purpose of the course was to help them remain healthy and drug free and to provide them with information and skills to help themselves, their family, and their friends and others remain healthy and drug free. Students kept a daily journal to record in their own words what they learned throughout the course. They also kept a scrapbook in which they pasted pictures, newspaper articles, or drawings of activities related to youth drug use. They assigned their own caption to each situation and described/summarized in one sentence what the picture or news item depicted. They made the journal and

scrapbook available for inspection once per month.

The writer launched the class with a question-and-answer session to find out what students knew about drugs. For example, they were asked to state the name of one drug that they had read or heard about. The most common response was marijuana. Another question enquired whether they thought alcohol was a drug. All the students responded negatively. This was followed by a discussion on whether they knew of any individuals or families who had been affected by drug use. The response to this question was positive from several students. The individuals or families remained anonymous.

Students were asked to suggest some of the dangers that were attached to the drugs named and to give their views as to why young people used drugs. Examples of the dangers suggested were they might get mad, die, lose their homes, or get sick. Some of the reasons given why young people used drugs were to feel good, to get away from problems, to cope with difficult school work, and to get back at parents, among others.

The writer used the Too Good for Drugs curriculum (Lesson 6) to guide the lesson. Elements of the lesson stressed were that some of the ingredients in dangerous chemicals were also contained in some drugs. For example, arsenic found in rat poison was also found in cigarettes and might cause cancer of the lung. The students learned about different types of drugs, marijuana, alcohol, and tobacco; prevalence of drug use among young people and early initiation; cultural factors and drug use; and the extent of use by boys and girls.

The dangers attached to drug use was also stressed: academic failure, health problems, social problems, reasons young people used drugs, lack of parental guidance, peer pressure, and low self-esteem, among others. The main points were recorded on the chalkboard so that students could add the information to their journal. Students expressed

their feelings about drugs and stated why they had these feelings. For example, a student indicated that her brother was a user and, as a result, they had lost the closeness they shared, which made her very sad. When asked why she was sad, her response was that she was afraid that he was going to die or go to prison.

As a concluding activity, the writer gave each student a card bearing the name of a drug. She then randomly called on individual students to tell the name of the drug on the card and say what they knew, if anything, about the drug. If the student holding the card had no information, other students could volunteer to speak about it. Students were allowed to keep the card and to find out more about the drugs for their journal or scrapbook.

Students explored the relationship between drug use and shattered dreams. They were asked to think about their dreams as well as found out about the dreams of their friends. A pool of dreams was created to see how many students in the class had the same dreams. For example, several students wanted to graduate with honors. The writer encouraged a discussion as to factors that might enable or prevent these dreams from becoming a reality. Some factors listed were dropping out of school, getting arrested for drug use, becoming pregnant, losing the main breadwinner in the family, and wasting time in class. These factors were noted on the chalkboard, and ideas from the discussion were used to show students that some young people used drugs because they lacked purpose or did not have a dream.

The writer then focused on each student's dream. Each was asked to write about something personal that they wanted to achieve over a 1-month period and a 3-month period. A discussion ensued about short- and long-term goals. Students gave their definition of short-term as against long-term. For example, short-term meant that it might

happen very soon, like in a week or two, while long-term meant that it might take many years. With guidance from the writer, students recognized how pursuing a short-term dream could lead to attaining a long-term dream and help one to stay away from drug use, almost like building blocks. As one activity is accomplished successfully, it might propel the achiever to reach for greater things. Students used their imaginations and creativity to fashion these dreams but remained realistic given the possibility that choosing dreams that were unattainable might lead to frustration and poor choices. The students were advised that it was important to frame their dream within a certain time span as that made it seem real and achievable.

The students were asked to think about their dreams and think of role models or persons they had read about, heard about, or known who achieved their dreams or did not achieve their dreams, such as Martin Luther King or someone else who had a profound effect on them. As many answers as possible were written on the chalkboard. The writer encouraged a discussion as to what enabled or prevented these persons from attaining their dreams: a good education, support of family and friends, lack of resources, and getting arrested were recurring responses. As many thoughts as possible were written on the chalkboard.

Students recorded five short-term and long-term dreams in their journals. They did not have to write long sentences and were allowed to describe their dreams in as few words as possible. They were allowed to modify or change their dreams. Students monitored the extent to which they achieved or failed to achieve their dreams and noted the things that might prevent them from attaining those dreams. They also made suggestions for remedying the situation. They sought help from parents and family members who might contribute to this effort.

In-class activity included utilizing the Too Good for Drugs workbook (Lesson 1) that required students to focus on future goals. The workbook gave a list of options of the kinds of things they would like to achieve after leaving middle school and high school. They also completed a personal profile telling where they were born, indicating their favorite activity, and naming a role model.

To complete the module, students were given Quiz 1, a sentence completion exercise. Ten sentences were split between two columns, A and B. A phrase in Column A was matched with a phrase in Column B. Students were required to find the correct match that completed the sentence. The quiz covered the material taught on family bonding, peer pressure, relationship building, and drug harm, and students had 30 minutes to complete the exercise. The writer gave assistance as needed and utilized the students' responses on the quiz to assess their rate of learning.

The next module covered perspective on drugs. Topics covered included how drug use impacted family, health, friends, school, and society; experimentation; and cultural norms, among others. Students gave their own opinions. For example, some students suggested that television played a role in giving students the wrong information about drugs, as some programs made drug use appear acceptable. Students also pointed out the ease with which young people could get rich if they sold drugs.

The students were asked to also state what they thought were their parents' and teachers' opinions with regards to drug use. Most students suggested that their parents and teachers might be disappointed if young people got involved with drug use. Others noted that some parents and teachers condoned drug use because they themselves were users. Role-play was used to present various perspectives in different forum; for example, a mother sharing her perspective on drugs with her child; two friends conversing about

their respective views. The writer and students discussed the impact that these views might have on how different entities function (family, school, and society). Each student gave a brief talk on the importance of having a voice and making one's views, feelings, and thoughts known. The writer showed students how having a voice was associated with making choices.

Students worked on activities in the Too Good for Drugs workbook that highlighted the benefits of making appropriate choices. They also discussed how making choices (good or bad) affected self-esteem and self-worth. Using drugs was presented as a bad choice, and students made a list of five ways in which making this choice could affect their educational goals. Students were led into a discussion on how and why young people experimented with drugs and how drug use affected their health, ability to learn, their environment, and their self-esteem. A short discussion on how culture might affect and influence drug use also ensued; for example, the use of marijuana for religious purposes.

The students learned that their views were important and were told to imagine themselves as young advocates seeking to effect change. They made a list of three changes they might effect in their school setting to help deter drug use among their peers. Examples of such changes were reducing the number of subjects they were required to take resulting in reduced stress and more respect from their principal and teachers, which would lead to improved communication and trust. Each student's contribution was written on the chalkboard and transferred to his or her journal.

Students also learned that it was important to get the facts before verbalizing so as not to misinform others. In-class activity required each student to make a small poster with an appropriate message to show his or her perspective on a different aspect of youth

drug use. An example was "love yourself, love your body, stay drug free." Students

completed an out-of-class activity that required them to interview a friend and get their

perspective on drug use among young people. This activity also incorporated handling

rejection, having respect for other people's feelings, listening techniques, and

assertiveness, among others, and appropriate exercises from the Too Good for Drugs

curriculum (Lesson 2) were utilized.

At the end of this module, the students were given Quiz 2 in which they filled in

the blanks. The quiz consisted of 10 sentences that captured different views about drug

use, for example, the role that friends and parents might play in the prevention process

and how stress, a positive attitude, and good communication skills might help youth stay

away from drugs. Each sentence had a word or two missing and students filled in the

blanks appropriately using word (s) from a list of 15 words provided. They were given 30

minutes to complete the exercise. This was not graded but was used to inform the writer

as to rate of learning.

The third module focused on the effects of drug use with a particular emphasis on

marijuana based on its increasing use among young people as supported by the literature.

The writer utilized role-play, group discussions, and leading questions to show how

marijuana affects cognitive functioning, attention, judgment, communication perception,

and decision making. Students were provided with printed material that described many

aspects of marijuana and highlighted its effect on the areas mentioned.

Students then used role-play to depict how a young person who used marijuana

might behave in different situations. For example, such a student might become forgetful

and fail to do his or her homework or collect his or her young brother from school.

Students then formulated a chart that noted the action, degree of the action (serious

moderate or mild), possible outcomes, and consequences of these actions.

The writer used the above scenario to introduce the topic decision making. The students examined simple case studies that focused on decision making and noted the merit in taking time to weigh the pros and cons of a situation and to think about the consequences before acting. Students examined and compared two situations in which they failed to make good decisions and two in which they made good decisions; skipping school to visit the mall and removing an item from home without parental permission represented poor choices. Staying away from peers who use drugs and encouraging a friend at risk of using drugs to seek professional help represented good decision-making skills. The students identified the risks attached to the various situations presented and found workable solutions to minimize or erase the risk.

Students were given some basic guidelines; for example, who would be affected by their decision, who could best help them in the decision-making process (teachers, parents, or peers), what were the alternatives, were all the facts available to enable the right decision, and what were the social, environmental, legal, and other implications.

The students were led to examine in particular peer impact on decision making and to give their views as to the extent they would trust their peer to influence their decision making. Each group was asked to comment on what the other groups had done and to suggest ways in which the decision taken could be improved. Each group was also allowed to defend the choice they had made and give reasons for making that choice. The purpose of the exercise was to help the students understand that they needed to take responsibility for their own actions and that failure to do so could have far-reaching consequences as they were not necessarily the only ones affected. The underlying lesson was to show that doing drugs was a poor choice due to poor decision-making skills, that

no matter whom they blamed for their actions, the decision was ultimately theirs.

The midpoint test was given, which consisted of 10 sentences focusing on marijuana myths and facts. Students were given a written definition for myth and fact. They were then required to read the statements given and circle myth or fact beside each. They had 30 minutes to complete the activity, which was collected for grading. Several of the activities utilized in this module were based on Lesson 3, Lesson 4, and Lesson 8 of the Too Good for Drugs curriculum.

In keeping with the focus of the next module, consequences of drug use and developing resistance skills, a short age-appropriate documentary (on tape) prepared by the writer was presented. It focused on various risks attached to youth drug use. For example, it described some of the health risks; cancer, lung disease, and laryngitis, among others. It also spoke about legal, social, and educational implications. Emotional side effects were also mentioned; mood swings, memory loss, and lowered self-esteem. The documentary stressed the long-term risks that could carry over into adulthood. A question-and-answer session elicited students' views on the documentary and focused on other consequences such as impact on the family, teachers, and friends.

The discussion highlighted the value of parental communication and dealing with feelings of aloneness and guilt. Students also discussed how socioeconomic status impacted the situation, the role of peer pressure and wanting to fit in, and the importance of becoming involved in community activities. A "think tank" exercise was also done to help students examine their belief system with regards to drug use. Class activities included role-play situations that encouraged family bonding and increased communication, among others. Lessons 3 and 7 guided the discussions and activities.

Students gave examples of how they might react if they used drugs and were

caught by their parents or other authority figure. They were placed in groups and pooled ideas on types of disciplinary action that might be appropriate for youth drug use. One session was spent exploring resistance techniques: building positive relationships, engaging in recreational activities, emulating positive role models, and seeking spiritual support, among others.

The students also role-played assertiveness techniques and how to say no with meaning as a deterrent to drug use. They examined friendships and, along with the writer, built criteria for choosing friends, avoiding conflicts, resolving conflicts, and building self-esteem. Some of the areas discussed were choosing friends approved by parents, walking away from situations that triggered conflict, and setting realistic goals to build self-esteem. Students completed Quiz 3, which required them to unscramble 10 words that spelled the names of different drugs that had been used in previous lessons. Students received an appropriate reward for correctly unscrambling all the words.

Developing self-management skills to deter initiation of drug use was the focus of the next module. An important component was for students to learn to make decisions from an informed position. Students engaged in simple research activities. This involved use of the computer; visiting the library; and talking with responsible adults, preferably parents and family members, in order to get the facts. Students imagined themselves in a risky situation involving offers of drugs and role-played how they would manage the situation given the information they had.

Techniques for managing anger and other emotions were taught to the students; for example, taking walks or doing deep breathing exercises to manage anger. Students learned to negotiate effectively in order to get their needs met; for example, offering to do a particular chore for their parent (s) in exchange for what they required. Students also

engaged in exercises that helped them with self-control in situations of conflict. Students drew on their own experiences. In one scenario, one group incited conflict by accusing another student of taking marijuana to school. The accusation was built on hearsay. The resulting discord enveloped the entire class and ruined friendships. The other group showed how asking the accused person in a nonconfrontational manner, whether there was any truth to the accusation, helped to prevent the problems that developed. Similar situations depicting self-control were role-played by the students.

Other contributors to good self-management were effective communication, sound value systems, having self-respect, and having strong ethical and moral codes of behavior. To highlight these factors, the writer used question-and-answer sessions, role-playing, and the use of board games. Checkers and Monopoly were utilized to cement the importance of playing the game fairly and honestly even when not winning. The moral and ethical value of honesty and integrity were also reinforced through these exercises as students conformed to the rules of the game.

Students learned through behavior modification skits, particularly modeling, that these traits were essential to self-control, which might in turn help them stay away from drug use. Communication exercises outlined in the Too Good for Drugs model, Lesson 3, were utilized to reinforce the importance of ensuring that communication was two-way and that the sender and the receiver were in sync.

The phone message game was used to highlight the importance of listening and of not believing everything that was heard. The phone message game was played with the writer delivering a message to a member of the class who passed it on to another member, who passed it on until everyone in the room had received the message. By the time the message reached the last person, it was completely different from what it was at

the outset. The point was for students to recognize that they do not always hear the facts. Information got tainted with other people's views and perceptions as it is passed along and so they had to be aware and safeguard themselves from being provided with incorrect information. In order to do this, it was important for them to have good and open communication with their parents, teachers, family members, and good role models.

Students were taught that many young people used drugs because they were presented with incorrect information and they did not take the time to get the facts for themselves by talking to those who really know. Students were asked to think of situations in which they almost got into trouble because they did not have all the facts. They were asked to share this information with the class if they felt comfortable doing so.

Another aspect to the lesson in communication that was addressed by the writer was that of teaching students how to express themselves verbally and through body language without being offensive. Students were given an opportunity to "speak" using body language only while their peers guessed at what message they were trying to send. Students also used voice and practiced changing their tones to get the message across. Students stated how the action of their peers made them feel. The class culminated with each student making a small banner that communicated a positive message to deter drug use.

The module Dealing With Peer Pressure to Use Drugs was introduced with students giving their own definition of peer pressure. These were recorded by the writer and students were commended for their views. Students revisited situations in which they were influenced by their friends to make a decision. Students ruled up two columns; in one column, they recorded the positive influence of friends and in the other how friends influenced them negatively. They then reflected on the outcome of each action they took

and indicated whether they would make the same choices if the circumstances were repeated and, if not, what they would change and why. Each student was given an opportunity to share with his or her peers and constructive comments were entertained. Students were divided into small groups and each group role-played different ways to resist peer pressure. The situations outlined in the Too Good for Drugs manual, Lesson 4, were used to guide this exercise.

The writer discussed resistance strategies such as "reverse the pressure" and "broken record." The reverse the pressure technique involved pairing each student with a partner. One partner suggested an action that he or she wanted to carry out; for example, going to the mall. The other partner countered that with a better idea that showed that perhaps if they went to the mall, it might have negative consequences. The partner with the better idea persisted until the other partner gave in. In the case of the broken record technique, one partner proffered negative and potentially dangerous suggestions, for example "let's skip school today." The other partner responded, "No, I am going to school," the first partner countered "school is no fun," and the other partner insisted, "I am going to school." Students practiced using these techniques until they felt that they could effectively use them if they were faced with such situations.

Students discussed various emotions that they might display if they felt pressured to use drugs. Feelings such as anger, shame, disappointment, frustration, and sadness were discussed and strategies to deal with these emotions were role-played. For example, a student who found herself in a situation that evoked anger did deep breathing exercises that calmed her and enabled her to evaluate the situation more rationally. Students used similar techniques to deal with aggression and passivity. Resisting peer pressure by way of nonverbal communication was also discussed and role-played. Some techniques used

were ignoring, walking away, rolling the eyes, staring straight ahead, and sighing. Other

techniques using the verbal approach were also discussed and relevant materials from the

Too Good for Drugs model were employed.

A short video entitled *I Can Quit* (Mendez Foundation, 2004), which further

highlighted the power of peer pressure and how this might contribute to drug use, was

presented. The 20-minute video presentation described in graphic detail how peer

pressure led to drug use and some of the consequences that arose. The video reinforced

such factors as the importance of listening to parents and other authority figures, getting

the facts, remaining focused on goals, practicing responsible behavior, choosing friends

carefully, and staying drug free, among others.

The video also depicted the cognitive, psychological, physical, emotional, and

other consequences of prolonged drug use. It provided counsel for young people and

discouraged them from using tobacco, alcohol, and other forms of drugs. It showed how

drug use might contribute to dropping out of school; shattered or unfulfilled dreams; low

self-worth; problems with the justice system; and negative impact on self, families, and

friends. After viewing the video, the students gave their views and stated those areas that

impacted them the most. Students wrote a report on the video presentation for their

parents or guardians. Students also completed Quiz 4, Making a Choice, that tested their

self-management and decision-making skills. Activities from The Too Good for Drugs

curriculum, Lesson 9, were utilized.

In the final module, Know Your Resources, students used the Internet to find

agencies such as National Institute on Drug Abuse that provided information about drugs.

They also researched various agencies that offered help to young people who felt at risk

of using drugs or who had initiated drug use. The role of these agencies and the type of

service (residential/outpatient) offered were discussed with the students. From the students' research, the writer compiled a list that included the name of the agency, address, and telephone number. She also added other agencies that were not named. The list was given to the students to add to their scrapbooks. Students were encouraged to share the list with their friends and family members so that they too could be informed.

The writer utilized various strategies to revise the areas covered. She examined students' journals and scrapbooks; had question-and-answer sessions, Lesson 10; gave pop quizzes; had teacher-led and peer-led discussions on various topics; held a poster competition; and had "teacher for 10 minutes" segments where students instructed their peers on prepared topics, utilizing what they learned during the period of intervention. The writer collected all workbooks, scrapbooks, and journals. The posttest (see Appendix D) was administered. The posttest questionnaire was distributed and the writer read the instructions aloud to the students. After ascertaining that everyone understood the instructions, they were asked to complete the sections requiring them to insert the date, their age, and gender and to circle the word Post, indicating the posttest. The writer then read through the 20 items, made clarifications, as necessary, and ensured that the students understood the content. They were told to circle the letter "t" if they agreed with the statement or the letter "f" if they disagreed with the statement.

The students were asked not to speak during this time or shout out their choice but to quietly and privately make a choice of "t" or "f." Students were given 30 minutes to complete the questionnaire. At the end of the 30 minutes, the students were asked to double check the questionnaire to ensure that they had not missed any of the questions or inadvertently placed their names on the questionnaire. Each student was required to lay the completed questionnaire face down at the end of their desk. The completed

questionnaires were then collected by the writer who expressed her thanks to the students for completing the survey. The responses were later grouped, coded, and recorded in preparation for analysis.

The writer held two workshops, one for teachers and the other for parents. The teachers' workshop lasted 2 hours and focused on the development of knowledge and competency to teach young children about drugs. The workshop began with a brain-storming session. In this session, teachers debated various teaching approaches that might deter early initiation. This was followed by a small-group discussion in which the teachers examined their strengths and weaknesses in terms of preparation to deal with the subject.

The teachers explored the benefits that they might gain from (a) forming a peer support group to discuss the subject candidly within the context of useful prevention strategies, (b) having speakers on a planned basis to share various techniques on identifying those at risk, (c) visiting residential facilities and interacting with the residents to gain insights and further enhance knowledge, and (d) attending related workshops at least twice per year. Central to this discussion was the importance of engendering a trusting relationship and having an open-door policy so that students might feel free to approach teachers with their problems.

Teachers also watched the video *I Can Quit* that provided them with useful information on reasons why young children used drugs, how parents might unwittingly promote drug use, and the value of building positive relationships and being good role models, among others. The workshop culminated with a question-and-answer session that provided some answers to some of the questions that arose in the brainstorming session.

The teachers evaluated each other through verbal feedback on each others' input

during the workshop. They also wrote a one-page narrative on ways in which the workshop contributed to their preparedness to teach children about drugs. The writer provided useful resources, literature, and relevant Web sites where additional information might be obtained.

The parenting workshop lasted 90 minutes and was presented under the banner Tell It Don't Hide It. Parents watched the 20 minute video *I Can Quit* that was used as a tool to sensitize them to the role parents sometimes unwittingly play in children's early drug use. An open forum that lasted 30minutes was held in which parents commented on the video they saw. The writer noted parents' viewpoints. Parents listened to a 15-minute presentation by the writer on the skills it takes to build strong, healthy relationships with their children.

The writer centered her presentation on communication and parental involvement. She pointed out that despite their busy schedule, it was crucial that they took an interest in their children's day-to-day activities; talked to them about their dreams, what made them excited, and what made them hurt; maintained a good rapport with teachers; attended parent-teacher meetings; ensured that homework was done; knew who their friends were; developed a good two-way communication flow; spent quality time together; and led by example, among others.

A 15-minute roundtable discussion followed in which parents outlined how they dealt with varying negative situations in which their children found themselves and they collectively developed a list of 10 approaches they might use to impart the drug prevention message to their children. The final 10 minutes were used to give verbal feedback as to their preparedness to discuss drug-related issues with their children. Parents viewed the students' journals, scrapbooks, and workbooks. The writer provided

relevant literature on some drug prevention strategies that they might utilize in discussing

drug use with their children.

Chapter 5: Results

This applied dissertation was undertaken to provide private school preadolescent students with age-appropriate established expectations for drug awareness. The writer utilized parental involvement, student participation and achievement through observation, interpretation and feedback, and student parental assessment to measure whether the outcomes were met or not met.

Measurement of Outcomes

Outcome 1. A drug awareness program would be developed and 33 of 36 parents would agree their children had been provided with the facts about drugs. This outcome was met. Parental involvement was integral in the achievement of this outcome. The writer ensured that parents were kept apprised of the various activities in which their children were involved during the course of the program. They completed and returned to the investigator a written questionnaire that established the following:

1. They engaged in a 30-minute discussion at parent-teachers' meeting in which they received an overview of the Too Good for Drugs instruction model used to provide students with age-appropriate drug education.

2. They were provided with a written outline of each unit to be covered to help them keep track of the topics covered each week.

3. During the intervention, they periodically received drug-related literature relevant to the program.

4. Once per month, they were requested to assist their children with accessing drug-related material for written assignments.

5. Their participation was confirmed by returning a written note to the writer.

6. They received regular feedback on their children's progress orally or in writing

and they agreed that the information imparted to their children provided them with the facts about drugs.

Outcome 2. The eight teachers would agree that the drug awareness curriculum reduced the risk of drug use by their children. This outcome was met. The writer and teachers observed students' in class and maintained a written log of their level of participation, initiative displayed, interest in activities, and completion of assignments. They focused on behavior changes, how they (students) responded to various situations, and how they handled relationships with peers and others. Students responded in writing or through modeling to drug-related hypothetical situations and their resolution tactics were recorded. Students shared with their teachers at least five reasons why they felt their risk of drug use had been reduced. Teachers arrived at their own conclusions from their observations and from the students' written statements and responded verbally in the affirmative to the question whether they agreed that the drug awareness curriculum reduced students' risk of using drugs.

Outcome 3. The principal and eight teachers would agree that students had information to help them deal with peers who used/abused drugs. This outcome was met. Students were given a number of assignments, including listing six criteria they might use to choose their friends at the outset of the intervention, and were required to repeat this exercise at the end of the intervention. The principal and eight teachers perused the criteria and discussed with the students individually and collectively how the program helped them to arrive at their decisions, particularly in light of the changes made in their choices. The participants also stated how they would use the information they acquired to protect themselves if they were faced with a drug related situation. The principal and teachers noted improvement in students' leadership capabilities, emotional well-being,

and social skills. They got independent feedback from students regarding the benefits derived from the program and solicited comments and feedback from other teachers and parents based on the students' reports of the program. The principal and teachers also observed the writer on a regular basis in the classroom setting as she made presentations to the students. Through interpretation and feedback, they were able to arrive at independent and collective opinions regarding content, delivery, level of students' participation, and students' receptiveness to the program. They ultimately agreed that the students had information to help them deal with peers who used drugs.

Outcome 4. Eleven of 12 students would agree that their parents often discussed issues relating to drug use/abuse with them. This outcome was partially met. Students kept a record of how frequently parents assisted them with homework on different aspects of drug use. They reported on the specific areas of drugs that their parents discussed with them. Students kept a log of the number of times per week their parents initiated a conversation on the topic. They also reported on other activities in which they had an opportunity to increase their knowledge about drug harm, for example, watching a drug-related documentary under their parent's guidance. The students kept a detailed log of how the discussions with their parents benefited them, improved their relationship, built their self-esteem, and reduced their risk of drug use. From this exercise, five students reported a positive change based on the criteria and the remaining students disagreed that there was any improvement.

Discussion

The principle findings of this study supported evidence for the effectiveness of providing drug-related information to students at an early age and by the right person (Bangert-Drowns, 1988). The program highlighted the need to provide young children

with facts about drug harm to minimize early initiation based on outside influences, such as media, peers, and other ill-informed or misinformed persons. Providing information at an early age serves as a protective factor and provides young people with some of the social and other skills necessary to deter early initiation. Because the school environment was identified as a breeding ground for early initiation, it might be the ideal place for disseminating this information to ensure factual and responsible delivery.

Schools with a large student population are more likely to have drug education programs built into the curriculum. However, small private schools similar to the one in which this study was conducted might not benefit from such programs based on lack of qualified staff to teach the subject, the mistaken notion that the setting is too intimate to promote drug use, or the belief that teachers might be able to police all the children under their care due to small numbers.

This study revealed that students in these smaller settings are as much at risk of drug initiation as those students in larger school settings, largely because they share the same external environments and might be exposed to the same emotional and other stressors. Getting the information about drug harm to them early in their school experience might prove to be the buffer they need to deter or prevent use in the later years. The findings of this study also pointed to the importance of providing useful tools to teachers that might build competency to impart information pertaining to drugs.

This study also reinforced the view that parental involvement in school-based interventions might be challenging (Andrews et al., 1995). The fact that the writer's role was reduced to some extent in the prescribed activities might have contributed to the poor outcome relating to parent/child interaction and discussions of drug-related topics. This approach might need to be re-evaluated in future studies.

The writer identified factors such as time constraints, work pressure, lack of interest, and other emotional stressors as contributing to the outcome. Nevertheless, the writer received some positive feedback from some of the parents. Comments, such as "I know my son/daughter is learning about things they can do to stay away from drugs and that I need to reinforce that at home," or "I am sorry, I wasn't able to participate more, but I am sure my son/daughter is learning a lot about how dangerous drugs are," gave an indication that parents were at least aware that they need to take a more active role in discussing drug use with their children.

The well-designed lessons/activities contained in the Too Good for Drugs curriculum formed the backbone of the program and were well received by the students. The fun activities, illustrations, and orderly layout aided understanding of the various topics. Mastery of the specific goals of the curriculum, goal setting, decision making, bonding with others, managing emotions, and communicating effectively, were identified as important deterrents to drug use.

There were a few minor criticisms from teachers pertaining to the curriculum; for example, it was felt that in the goal setting section, some of the examples were too abstract and some of the role models used needed to be persons with whom the students might relate. Other criticisms were leveled at activities that might be considered outside the range of students' experiences and interests. Notwithstanding, it was agreed by the stakeholders to be an appropriate tool for providing drug-related information.

With regard the benefit of the program to the students themselves (although this was not a projected outcome), the writer concluded that there was direct student impact, based on the positive comments and the attitudes of the students toward the subject and the writer. Some of the views/feelings expressed after viewing the video *I Can Quit* were

as follows:

      1. "I had no idea drugs could do that to you."

      2. "I am never going to use drugs, I don't want to lose half of my face and wear that horrible thing to straighten it out."

      3. "I am going to be careful how I choose my friends; nobody is going to make me use drugs."

Other comments noted after the writer presented a lesson were "the drugs lady" [reference to the writer] "said drugs are bad for your health"; "I learned a lot from today's lesson, about marijuana"; "I didn't know, until now that alcohol was a drug"; "I smoked a cigarette once, because my friend was doing it, but I am not touching it again, because I don't want to die early."

      There were some limitations to the study in that the sample size was small based on the type of setting, a private home school. However, the results of the study indicated that drug education might be useful to young children despite the type and size of the school they attended, and teachers and parents in such settings might benefit from exposure to strategies/skills that might allow them to present the topic of drugs to their students and children. Although this study might be generalizable to similar home-school populations, it might need to be expanded for larger populations.

      Unscheduled calendar changes by the school's administration within the implementation period negatively impacted the program at times, requiring the writer to make necessary modifications. For example, students were taken to a recreational park on occasions without prior knowledge of the writer, requiring the writer to find creative ways to utilize the setting without compromising the content of the lesson. In such wide open spaces, control of the students became challenging. Other unscheduled calendar

changes also contributed to the writer not being able to distribute the certificates of participation to the students at the planned time. These were left with the principal for delivery.

Recommendations and Conclusion

The writer recommended that additional research be conducted to determine the extent to which similar programs were conducted in home-school settings and the extent to which such programs might reduce students' risk of initiating drug use. Drug education programs were to be an integral part of the curriculum of private home schools regardless of size.

The results of the study indicated that the intervention met with some measure of success based on the level of participation of all the stakeholders, reports from the principal and staff, and comments from parents and students. However, it was also evident that the school needed to take proactive action in response to the potential risks that might exist for students' drug use initiation. As a consequence, it is hoped that the administration might use the report to guide its decision for the inclusion of an ongoing drug education program in the school's curriculum.

Dissemination

The writer wrote a comprehensive report detailing her findings, major conclusions, implications, and suggestions for future research. The full written report was presented to the Chairperson and to the university for approval. Highlights of the study were presented in the form of a verbal presentation to the stakeholders, principal, staff, and parents, at a special parent-teachers meeting scheduled for the purpose. At the end of the entire process, the writer ensured that all data collected and used in the analysis were securely and safely stored and were inaccessible to unauthorized persons.

References

Allen, O., & Page, R. M. (1994). Variance in substance use between rural Black and White Mississippi high school students. *Adolescence*, *29,* 401-404.

Andrews, D. W., Soberman, L. H., & Dishion, T. J. (1995). The adolescent transitions program for high-risk teens and their parents: Toward a school-based intervention. *Education and Treatment of Children*, *18*, 478-498.

Bangert-Drowns, R. L. (1988). The effects of school-based substance abuse education: A meta-analysis. *Journal of Drug Education*, *18,* 243-264.

Black, D. R., Tobler, N. S., & Sciacca, J. P. (1998). Peer helping/involvement: An efficacious way to meet the challenge of reducing alcohol, tobacco, and other drug use among youth. *Journal of School Health*, *68,* 87-93.

Blake, S. M., Amaro, H., Schwartz, P. M., & Flinchbaugh, L. J. (2001). A review of substance abuse prevention interventions for young adolescent girls. *Journal of Early Adolescence, 21,* 294-324.

Boston University School of Public Health. (2001). *Strengthening families: What communities can do to support families with addictions. Action kit.*. Boston: Author, Join Together.

Brener, N. D., & Wilson, T. W. (2001). Substance use on school property among students attending alternative high schools in the United States. *Journal of Drug Education*, *31,* 329-342.

Brook, D. W., Brook, J. S., Zhang, C., Cohen, P., & Whiteman, M. (2002). Drug use and the risk of major depressive disorder, alcohol, dependence, and substance use disorders. *Archives of General Psychiatry*, *59*, 1039-1044.

Carroll, J. (2000). Counseling students' conception of substance dependence and related initial interventions. *Journal of Addictions and Offender Counseling*, *20,* 84-93.

Codori, M. (1999, November). Setting a school policy to curb off-campus student substance abuse. *High School Magazine*, *7,* 6-9.

Elder, C., Baines, J., Leaver-Dunn, D., Nagy, S., & Leeper, J. (2001). The influence of group membership on multiple substance use. *Journal of Alcohol and Drug Education*, *47*(1), 20-30.

Ellickson, P., Bui, K., Bell, R., & McGuigan, K. A. (1998). Does early drug use increase the risk of dropping out of high school? *Journal of Drug Issues, 28,* 357-381.

Ennett, S. T., Tobler, N. S., Ringwalt, C. L., & Flewelling, R. L. (1994). How effective is drug abuse resistance education? A meta-analysis of project DARE outcome

evaluations. *American Journal of Public Health, 84,* 1394-1400.

Etheridge, R. M., Smith, J. C., Rounds-Bryant, J. L., & Hubbard, R. L. (2001). Drug abuse treatment and comprehensive service for adolescents. *Journal of Adolescent Research*, *16,* 563-589.

Felix-Ortiz, M., Velazquez, V., Medina-Mora, J. A., Newcomb, M. E., & Michael, D. (2001). Adolescent drug use in Mexico and among Mexican American adolescents in the United States: Environmental influences and individual characteristics. Cultural diversity and ethnic minority. *Psychology*, *7*(1), 27-46.

Fox, C. L., & Forbing, S. E. (1991). Overlapping symptoms of substance abuse and learning handicaps: Implications for educators. *Journal of Learning Disabilities*, *24,* 24-39.

Garnier, H. E., & Stein, J. A. (2002). An 18 year model of family and peer effects on adolescent drug use and delinquency. *Journal of Youth and Adolescence*, *31,* 45-56.

Garrison, C. Z., McKeown, R. E., Valois, R. F., & Vincent, M. L. (1993). Aggression, substance use and suicidal behaviors in high school students. *American Journal of Public Health*, *83,* 179-184.

Gosin, M., Marsiglia, F. F., & Hecht, M. L. (2003). Keepin' it R.E.A.L: A drug resistance curriculum tailored to the strengths and needs of pre-adolescents of the southwest. *Journal of Drug Education*, *33,* 119-142.

Gottfredson, D. C., & Wilson, D. B. (2003). Characteristics of effective school-based substance abuse prevention. *Prevention Science*, *4,* 27-38.

Griffin, K. W., Epstein, J. A., Botvin, G. J., & Spoth, R. L. (2001). Social competence and substance use among rural youth: Mediating role of social benefit expectancies of use. *Journal of Youth and Adolescence*, *30*, 485-498.

Gruskin, S., Plafker, K., & Smith-Estelle, A. (2001). Understanding and responding to youth substance use: The contribution of a health and human rights framework. *American Journal of Public Health*, *91*, 1954-1963.

Guo, J., Hill, K. G., Hawkins, J. D., Catalano, R. E., & Abbott, R. D. (2002). A developmental analysis of socio-demographic, family and peer effects on adolescent illicit drug initiation. *American Academy of Child and Adolescent Psychiatry*, *41*, 838-845.

Guthrie, B. J., & Flinchbaugh, L. J. (2001). Gender-specific substance prevention programming: Going beyond just focusing on girls. *Journal of Early Adolescence*, *21*, 354-372.

Hansen, W. B., Tobler, N. S., & Graham, J. W. (1990). Attrition in substance abuse prevention research: A meta-analysis of 85 longitudinally followed cohorts. *Evaluation Review, 14,* 677-685.

Harris, J. L. (1996). The trading cards program: An evaluation of use of high school role models for drug abuse prevention. *Journal of Health Education*, *27,* 115-118.

Houghton, S., Carroll, A., & Odgers, P. (1998). Young children, adolescents and alcohol: Part 1: Exploring knowledge and awareness of alcohol and related issues. *Journal of Child and Adolescent Substance Abuse, 7*(3), 1-29.

Hser, Y., Grella, C. E., Hubbard, R. L., Hsieh, S., Fletcher, B. W., Brown, B. S., & Anglin, D. (2001). An evaluation of drug treatments for adolescents in 4 US cities. *Archives of General Psychiatry, 58,* 689-695.

Jenkins, J. E. (2001). Rural adolescent perceptions of alcohol and other drug resistance. *Child Study Journal, 31,* 211-224.

Kafka, R. R., & London, P. (1991). Communication in relationships and adolescent substance use: The influence of parents and friends. *Adolescence*, *26*, 587-598.

Kantor, G. K., Caudill, B. D., & Ungerleider, S. (1992). Project impact: Teaching the teachers to intervene in student substance abuse problems. *Journal of Alcohol and Drug Abuse*, *38*(1), 1l-29.

King, K. A., Wagner, D. I., & Hedrick, B. (2001). Safe and drug free school coordinators' perceived needs to improve violence and drug prevention programs. *Journal of School Health, 71,* 236-241.

Kraft, M. K., Vicary, J. R., & Henry, K. L., (2001). Bringing justice to adolescent substance abuse treatment. *Youth and Society*, *33*, 133-142.

Kulis, S., Napoli, M., & Marsiglia, F. F. (2002). Ethnic pride, biculturalism, and drug use norms of urban American Indian adolescents. *Social Work Research*, *26,* 101-112.

Lambie, G., & Rokutani, L. J. (2002, June). A systems approach to substance abuse identification and intervention for school counselors. *Professional School Counseling*, *5,* 353-359.

Laursen, E. K., & Brasler, P. (2002). Is harm reduction a viable choice for kids enchanted with drugs? *Reclaiming Children and Youth, 11,* 181-183.

Lowry, R., Cohen, L. R., Modzeleski, W., Kann, L., Collins, J. L., & Kolbe, L. (1999). School violence, substance use, and availability of illegal drugs on school property among US high school students. *Journal of School Health*, *69,* 347-355.

Marsh, L. D., Key, J. D., & Payne, T. P. (2000). Methylphenidate misuse in substance

abusing adolescents. *Journal of Child and Adolescent Substance Abuse*, *9*(3), 1-14.

McClanahan, K. K., McLauglin, R. J., Loos, V. E., Holcomb, J. D., Gibbins, A. D., & Smith, Q. W. (1998). Training school counselors in substance abuse risk reduction techniques for use with children and adolescents. *Journal of Drug Education, 28,* 39-51.

Mendez Foundation. (2004). *Too good for drugs: Seventh grade curriculum.* Tampa, FL: Author.

Morojele, N. K., Flisher, A. J., Muller, M., Ziervogel, C. F., Reddy, P., & Lombard, C. J. (2002). Measurement of risk and protective factors for drug use and antisocial behavior among high school students in South Africa. *Journal of Drug Education*, *32,* 25-39.

Muck, R., Zempolich, K. A., Titus, J. C., Fishman, M., Godley, M. D., & Schwebel, R. (2001). An overview of the effectiveness of adolescent substance abuse treatment models. *Youth and Society, 33,* 143-168.

Mullen, P. D., Simons-Morton, D. G., Ramirez, G., Frankowski, R. F., Green, L. W., & Mains, D. A. (1997). A meta-analysis of trials evaluating patient education and counseling for three groups of preventive health behaviors. *Patient Education and Counseling*, *32,* 157-173.

Nagy, S., & Dunn, M. S. (1999). Alcohol behaviors and deviant behaviors among adolescents in a rural state. *Journal of Alcohol and Drug Education*, *44*(3), 1-9.

National Institute on Drug Abuse. (2003). Marijuana. *Infofacts,* 6-7. Retrieved July 18, 2004, from http://www.drugabuse.gov/pdf/InfoFacts/Marijuana04.pdf

Page, R. M., Hammermeister, J., & Roland, M. (2002). Are high school students accurate or clueless in estimating substance use among peers? *Adolescence, 37*, 567-573.

Peltzer, K. (2003). Smokeless tobacco and cigarette use among black secondary school students in South Africa. *Substance Use and Misuse***,** *38*, 1003-1016.

Pluddemann, A., Theron, W. H., & Steel, H. R. (1999). The relationship between adolescent alcohol use and self-consciousness. *Journal of Alcohol and Drug Education*, *44*(3), 10-20.

Reinzi, B. M., McMillin, J. D., Dickson, C. L., Crauthers, D., McNeill, K. F., Pesina, M. D., & Mann, E. (1996). Gender differences regarding peer influence and attitude toward substance abuse. *Journal of Drug Education*, *26,* 339-347.

Sander, W. (1998). The effects of schooling and cognitive ability on smoking and marijuana use by young adults. *Economics of Education Review, 17,* 317-324.

Schlozman, S. C. (2000). Why "just say no" isn't enough. *Educational Leadership*, *59*(7), 87-89.

Senge, P. M. (1994). *The fifth discipline: The art and practice of the learning organization*. New York: Currency and Doubleday.

Smart, L. S., Chibucos, T. R., & Didier, L. A. (1990). Adolescent substance use and perceived family functioning. *Journal of Family Issues, 11,* 208-227.

Stevens, P., & Griffin, J. (2001). Youth high-risk behaviors: Survey and results. *Journal of Addictions and Offender Counseling*, *22,* 31-46.

Sutherland, I., & Shepherd, J. P. (2002). Adolescents' beliefs about future substance use: A comparison of current users and non-users of cigarettes, alcohol and illicit drugs. *Adolescence, 25*(2), 169-181.

Tubman, J. G., Wagner, E. F., Gil, A. G., & Pate, K. N. (2002). Brief motivational intervention for substance-abusing delinquent adolescents: Guided self change as a social work practice innovation. *Health and Social Work*, *27*(3), 208-112.

Warner, J., Weber, T., & Albanes, R. A. (1999). "Girls are retarded when they're stoned": Marijuana and the construction of gender roles among adolescent females. *Sex Roles: A Journal of Research, 40,* 25-43.

Webster, R. A., Hunter, M., & Keats, J. A. (2002). Evaluating the effects of a peer support program on adolescents' knowledge, attitudes and use of alcohol and tobacco. *Drug and Alcohol Review*, *21,* 7-16.

Westberg, J. (2001). Healthy nations: Communities create solutions for substance abuse. *Winds of Change*, *16*(3), 38-43.

Wills, T. A., Sandy, J. M., Yaeger, A., & Shinar, O. (2001). Family risk factors and adolescent substance use: Moderation effects for temperament dimensions. *Developmental Psychology, 37,* 283-297.

Winkleby, M. A., Feighery, E. C., Altman, D. A., Kole, S., & Tencati, E. (2001). Engaging ethnically diverse teens in a substance use prevention advocacy program. *American Journal of Health Promotion, 15,* 433-436.

Yuen, F. K., & Pardeck, J. T. (1998, June). Effective strategies for preventing substance abuse among children and adolescents. *Early Childhood Development and Care*, *145,* 119-131.

Appendix A

Principal Interview Questions

Face-to-Face Interview With Principal

Prior to this interview the Principal will be advised by the investigator that in responding to the questions, no identifying information about the participants should be given.

1.   How long have you been operating as a school?

2.   What is your current population?

3.   What are their ages?

4.   How many teachers do you have on staff?

5.   Are they all full time?

6.   From what areas do your students come?

7.   Could you tell me about the curriculum that you offer?

8.   Does the curriculum meet State standards?

9.   Do you think there is a need for your students to be educated about the harm of drugs? Why?

10.   Have any of your parents complained to you about their children becoming involved in   drugs?

11.   To what extent do you think your students are exposed to drugs?

12.   Would you be amenable to having a drug education component incorporated in the curriculum?

13.   How do you think your students would benefit from such a program?

14.   Do you think parents are aware of the need to talk to their children about drugs?

15.   Do you think being a Christian school serves as a protective factor against drug use? In what ways?

16.   To what extent do you think parents are aware of the prevalence of drug use among pre-adolescents?

17.   Have you done any research in the area of drug abuse among pre-adolescents?

18.   In your opinion do you think your parents would be able to recognize the signs of drug use in their children?

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Appendix B

Teachers' Interview Questions

Informal Interview - Teachers

Prior to this interview the teachers will be advised by the investigator that in responding to the questions, no identifying information about the participants should be given.

1.   How long have you been with the school?

2.   How many years have you been teaching?

3.   What age group do you teach?

4.   What subject (s) do you teach?

5.   Is there a structured drug education program in the school?

6.   Do you think the students would benefit from such a program? How?

7.   If you were asked to teach drug education would you feel competent to do so?

8.   Do you think the parents will be agreeable to their children participating in a drug education program? Why?

9.   To what extent do you think the students are at risk of using drugs?

10.   In your view how would you classify the socio-economic status (SES) of your students?

11.   Do you incorporate drug education in your teaching?

12.   Do you believe that the students are at risk of drug use? Why?

13.   Would you feel comfortable talking to the students about drugs?

14.   In your opinion, do you think parents in general are comfortable talking with their children about drugs?

15.   Have you any idea whether the parents of these children talk to them about drugs

16.   To what extent do you think pre-adolescent's drug use is influenced by friends?

17.   Have you ever taken a specific course on teaching children about drugs?

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Appendix C

Health Science Teacher Interview Questions

Face-to-Face Interview With Health Science Teacher

Prior to this interview the Health Science teacher will be advised by the investigator that in responding to the questions, no identifying information about the participants should be given.

1.   How long have you been with the school?

2.   How many years have you been teaching?

3.   What age group do you teach?

4.   What subject (s) do you teach?

5.   Is there a structured drug education program in the school?

6.   In your opinion, do you think the students would benefit from such a program? How?

7.   Will you be able to accommodate me for 3 hours each week?

8.   In your opinion, do you think the other teachers would support the program?

9.   Do you think the parents will be agreeable? Why?

10.   In your opinion, to what extent do you think the students are at risk of using drugs?

11.   Could you give me an indication of the socio-economic background of the students?

12.   Do you incorporate drug education in your teaching?

13.   In your opinion, do you believe that the students are at risk of drug use? Why?

14.   Would you feel comfortable talking to the students about drugs?

15.   In your opinion, do you think parents in general are comfortable talking with their children about   drugs?

16.   Have you any idea whether the parents of these children talk to them about drugs?

17.   To what extent do you think pre-adolescent's drug use is influenced by friends?

18.   Have you ever taken a specific course on teaching children about drugs?

19.   Although I do not anticipate starting until 2005, as I have to await approval, given the ground-work that I have to cover, I would appreciate your advising me at your earliest-with regard the days and times that would be made available for me to work with the children.

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Appendix D

Drug Awareness Questionnaire

Drug Awareness Questionnaire
Pre/Post Test

Date…………………. Age…………. Gender: M F

The purpose of the questionnaire is to find out how you feel about drugs and how much you know about how drugs (alcohol, tobacco and marijuana) affect your ability to learn and make decisions. Please respond to ALL the questions. Circle the letter "T" if you agree with the statement and "F" if you disagree. Please fill in today's date. DO NOT write your name on the Questionnaire. Circle M if you are a boy and F if you are a girl. You have 30 minutes to answer the questions. The investigator will collect the questionnaires at the end of 30 minutes.

	Feelings:		
1	Using drugs is a "cool" thing to do.	T	F
2	Using drugs will make your problems go away.	T	F
3	It is okay for students to use drugs.	T	F
4	Students who use drugs are smart.	T	F
5	It is okay to drop out of school because of drug use.	T	F
6	Using drugs builds self confidence.	T	F
7	Using drugs makes you feel grown-up.	T	F
8	Using drugs can be harmful to your health.	T	F
	Drugs and Learning		
9	Using drugs helps you to learn better.	T	F
10	Using drugs helps you to communicate better.	T	F
11	Using drugs helps you to retain information longer.	T	F
12	Using drugs will helps you earn better grades.	T	F
13	Using drugs once in a while will not affect learning.	T	F
14	Using drugs regularly will increase attention span.	T	F
15	Using drugs will keep you mentally alert in class.	T	F
16	Using drugs helps you to think better.	T	F
17	Using drugs helps you understand information more easily.	T	F
18	Using drugs helps you to process information easier.	T	F
19	Using drugs gives you more wisdom.	T	F
20	Using drugs helps you overcome your fears of learning.	T	F

Thank you for your time.

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Appendix E

Midpoint Test, Marijuana Myths or Facts

Midpoint Test

Marijuana Myths or Facts

Instructions:

Let's find out if you can tell the difference between *myth*s and *facts* about marijuana. Show that you know by placing an (x) in the correct box at the end of each sentence. Give one reason for each of your choice.

Note: A *myth* is something many people believe to be true without any facts to prove it.
       A *fact* is something that has been proven to be true.

Nos.	Sentences	Myth	Fact
1.	Almost all teenagers smoke marijuana.		
2.	Smoking marijuana is no worse than smoking cigarettes.		
3.	Smoking marijuana damages the immune system.		
4.	The effects of smoking marijuana only last for an hour or two.		
5.	Most people think that marijuana should be legalized.		
6.	Smoking marijuana can affect the reproductive system and lower the body's hormone levels.		
7.	Marijuana is safe; it's all natural.		
8.	Smoking marijuana is a good way to solve problems.		
9.	Smoking marijuana slows the heart rate, so it's relaxing.		
10.	Smoking marijuana changes the way the brain works.		

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Appendix F

Monthly Quizzes 1-4

QUIZ # 1

Sentence Completion

Instructions:

Match one phrase in column *A* with the correct phrase in column *B* to complete the sentence. You may draw a line across the columns to do the match up or you may write the complete correct sentence on the ruled sheet provided.

Nos.	Column A	Column B
1	Parents who show their children lots of love	called a *joint* or *pot.*
2	Using drugs can affect	may be likely to use drugs.
3	Marijuana is sometimes called	may help them to stay away from drugs.
4	THC is an active chemical	may prevent you from using drugs.
5	Using drugs can	can get you arrested.
6	Long term use of cigarettes	your ability to make good choices.
7.	Using illegal drugs like marijuana is	found in marijuana.
8.	Peer pressure can	can cause disease of the heart and lung.
9	Young people with low self esteem	can help them stay away from drugs.
10	Building strong, solid relationships with your family	cause you to use drugs.

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QUIZ #2

Filling the Blanks

Instructions:

Fill in the blanks in the sentences using the correct word from the list provided. You may use each word only once.

List of words.

true; encourage: stress, self esteem; gang; good; talk; support; friends; involved; cope; pressure; cheer; problems; no.

1.   A _____friend does not _____ you to use drugs.

2.   _____and worry may cause you to use drugs.

3.   Becoming involved with a _____could lead to drug use.

4.   Parents can help their children stay away from drugs by being _____ role

        models.

5.   The positive _____of family and _____can help you stay away from

        drugs.

6   Parents who _____openly with their children can help them stay away from

        drugs.

7.   Becoming _____ in school activities such as sports can help you stay

        away from drugs.

8.   Learning how to _____with peer _____ can help you stay away

        from drugs.

9.   Using drugs will not _____you up or make your _____go away.

10.   Always remember to say _____to drugs.

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QUIZ #3

Scrambled Words

Instructions:

Below are the names of types of drugs or words related to drugs that you may have heard about. The letters in each word are jumbled. Unscramble them to find the correct word. When you have found the correct word write it beside the scrambled word.
For example, RUDG - DRUG.

1.   UMAIJRNAA

2.   CLHOLOA

3.   NIOCECA

4.   BOCOCAT

5.   INTINEOC

6.   GTECIRSAET

7.   SNNAHALIT

8.   KARCC

9.   HONERI

10.   RAICG

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QUIZ #4

Making a Choice

Instructions:

After each scenario is read aloud to you, you will have 60 minutes to write down how you would deal with the situation. You do not have to give a reason for your answer.

1.   You are invited to a party at the home of an eighth grader who is new in the neighborhood. When you get there, you see that most of the kids are much older than you are. There are no parents in sight and everyone is drinking wine coolers. Your new friend says "Here, have one. No big deal. It's just fruit juice"

_____

_____

2.   You are with some relatives and friends at a wedding reception. You go outside with a group of kids to talk for a while. A cousin has sneaked some beers out under his jacket. He dares you to have a beer. Everyone is watching you.

_____

_____

3.   You are spending the night with your best friend whose parents have gone out to dinner, leaving you to eat popcorn and watch TV. You are looking through the refrigerator for cold drinks when your friend finds some beer and asks, "How about one of these? It is light beer, so it doesn't have much alcohol in it. Let's try one"

_____

_____

4.   You and a friend are waiting for his mom to pick you up after a movie one evening, when his older brother drives up with his girlfriend. "Hop in", he says. " I told mom I would take you home". As you get into the car, his girlfriend reaches into a cooler and offers you a beer, asking, "How about one for the road?"

_____

_____

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