

2001

A Secondary Analysis of Twelfth Grade Students and Their Engagement in Risk Behaviors

Dana L. Morton
Grand Valley State University

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**A SECONDARY ANALYSIS OF TWELFTH GRADE STUDENTS AND THEIR
ENGAGEMENT IN RISK BEHAVIORS**

By

Dana L. Morton M.S.N., R.N.

A THESIS

**Submitted to
Grand Valley State University
In partial fulfillment of the requirements for the
Degree of**

MASTER OF SCIENCE IN NURSING

Kirkhof School of Nursing

2001

Thesis Committee Members:

Cynthia Coviak, Ph.D., R.N.

Maureen Ryan, M.S.N., R.N., CS

Caroline Sharrow, M.A.

ABSTRACT

A SECONDARY ANALYSIS OF TWELFTH GRADE STUDENTS AND THEIR ENGAGEMENT IN RISK BEHAVIORS

By

Dana L. Morton, MSN, RN

This study was a secondary analysis of data from a national survey of 135 high schools throughout the nation, including both rural and urban settings. A sample of 14,056 twelfth grade students participated in the survey. This study explored the relationships between religious attendance, perceived importance of religion, and smoking and consumption of alcohol in adolescents. Very little research was found on the relationship between religion and adolescent health, indicating a need for more investigations. This study found that the greater number of times an individual attended religious services the less they reported engaging in smoking and drinking. Future intention to smoke or drink and attendance at religious services was also found to have a significant inverse relationship. Perceived importance of religion, as reported by the adolescent, although weakly correlated, was also found to be inversely related to smoking and drinking. While all relationships examined in this secondary analysis were found to be significant, the correlations were weak and may be a result of the large sample size.

Acknowledgments

I want to thank my committee members for all their help with learning the process of scholarly research, and for their encouragement to persevere. I also want to acknowledge all the extra help and time my committee chairperson, Dr. Cindy Coviak, RN, put in on this project. She was very patient and understanding during this tumultuous time in my life!

Finally, I want to thank Jeanette Banashak for lending me her computer after mine died. I truly would not have been able to complete this thesis without her generosity. She is a true friend and an outstanding teacher.

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CHAPTER ONE

INTRODUCTION / PURPOSE

The relationship between religion and adolescence has been tenuous for many years. Religion symbolizes structure, rules, and compliance; everything an adolescent toils to renounce. Adolescence has long been characterized as a period of emotional and psychological turmoil. Classic developmental theory (Erikson, 1963) proposes that the major psychosocial task of adolescence is the development of autonomy. As adolescents strive to understand the purpose of life, they examine parental values and establish their own adult beliefs, which may include renunciation of childhood teaching and relationships. Adolescents will challenge, and test, and possibly even reject the social, moral, and religious norms with which they have been raised (Gilligan, 1982).

Adolescent behavior is sometimes perceived by others as outrageous but harmless and at other times as very dangerous to the adolescent and others. Risky behaviors that adolescents choose to become involved in, such as engaging in sexual intercourse, smoking, and drinking alcohol may have detrimental consequences, such as destroying their health or ending their lives. For example, the U.S. Department of Health and Human Services (DHHS) in 1993 indicated that adolescent use of alcohol

is a contributing factor in approximately half of all homicides, suicides, and motor vehicle accidents which involve teens.

“Understanding and addressing these issues is imperative because the attitude and behavior patterns developed during the teen years often carry over to adulthood and can affect a person’s long term prospects for health and success” (DHHS, 1993, p.78). An understanding of how religion can aid in prevention of risk behaviors such as smoking and alcohol abuse, will in turn help guide preventive measures for a number of other risky behaviors.

Despite growing concern over these issues as well as others, researchers have typically ignored a potentially important positive factor that may act as a protective agent. American youth exhibit highly integrated religious beliefs and attitudes. (Gallup & Bezilla, 1992) For example, “95% of American teens aged 13 – 17 believe in God (or a universal spirit), and 86% believe that Jesus Christ is God or the Son of God” (Gallup & Bezilla, 1992). “Adolescents are an important socio-demographic group that is surprisingly absent from the growing body of research on the relationship between religion and health” (Wallace & Williams, 1997, p. 460). For example, the largest document relating to adolescent health – the U.S. Congress’ 726 page report on adolescent health – included only two references to religion. Drs. McGinnis and Foege in an article in the *Journal of the American Medical Association* (1993) stated:

The explanation for researchers’ apparent lack of interest in the relationship between religion and adolescent health issues, beyond delinquency, is unclear. Whatever the explanation, however, the lack of research on religion and adolescent health is surprising given (1) a large and growing body of

research on the relationship between religion and health among adults and (2) empirical evidence that many causes of adult sickness and death directly result from behavior patterns initiated during adolescence (p. 59).

To that end this secondary analysis seeks to further the scientific knowledge base on the relationship between religion and adolescent health.

CHAPTER TWO

CONCEPTUAL FRAMEWORK

The conceptual framework on which this study is based is Wallace and William's Socialization Influence Model (1997) (Figure 1.). "The socialization influence model postulates that adolescent health outcomes, and health-compromising behavior in particular, are a result of a dynamic socialization process that begins in childhood and extends over the life course" (Wallace & Williams, pg. 459).

Wallace and Williams (1997) theorize that the first or primary socialization influence in a person's life is his or her family. These authors are largely influenced by Fowler's (1991) work on religious development. Fowler integrated and built on several theories such as those of Piaget, (theory of cognitive development) Kohlberg (theory of moral development) and Erikson (theory of psychosocial development) to create his stage model of faith development. The stages of faith begin with the family as the primary religious source of socialization of children (Fowler, 1991). This first stage of faith begins at birth and sets the foundation for later stages. Fowler posits that the foundation for religious faith is a basic faith in parents, which is learned during infancy. It is in this stage that infants learn to develop trust. The second stage in Fowler's model is similar to the first in that he suggests that children's perceptions about God come from their interactions with their parents and other adults with whom

they are closely attached. During this stage, “imagination, stimulated by stories, gestures, and symbols but not yet controlled by logical thinking, combines with perception and feelings to create long-lasting faith images” (p.35).

The second concept in Wallace and William’s (1997) framework is the secondary socialization influence which is composed of three factors that interrelate: religion, peers, and school. It is important to understand how religion can also impact the individual factors within the secondary socialization stage. For example, if a parent is strongly religious he may choose to send his child to religious schools and to direct the activities the child is involved in. This would then directly or indirectly influence the child’s choice of friends. “The socialization influence model posits that religion is an important socialization influence that operates independently, interdependently, and perhaps even in competition with the other secondary socialization influences to help create and shape the socialization mechanisms that, in turn, impact adolescent health outcomes” (Wallace & Williams, 1997, p. 462). The third stage of Fowler’s (1991) faith development model is reflected in the socialization framework in that he suggests that the “mythical-literal faith stage” (p. 35) begins in elementary school years. During this concrete operational stage the ability to develop logical thinking “emerges to help children order their world” (p. 35). Religious beliefs and concepts are understood through classes, both religious and scholastic, as well as relationships with parents and classmates.

Wallace and Williams (1997) suggest that the socialization mechanism is comprised of both social control and support and perception of values and identity. They also suggest that research, both theoretical as well as empirical, has not

recognized the importance of religion as a significant factor in the health behaviors and choices of adolescents. Religion has for many years had a negative reputation in relation to health outcomes, meaning that the restrictions placed upon people would prompt individuals to involve themselves in unhealthful behaviors (Wallace & Williams, 1997). Hirshi and Stark (1984) would also agree with Wallace and Williams in that they believe that religion has had a negative reputation in regards to health outcomes for many years. Many theorists propose that religion instills an unhealthy amount of constraint as well as encouragement on its participants to conform (Hirschi & Stark, 1984). For example, one who was raised with strict abstinence teaching might rebel and engage in promiscuous sexual relationships. Wallace and Williams suggest in their framework that research is needed to investigate or better understand how religion may protect adolescents from potentially life-altering behaviors. The framework also suggests that the factors that make up the secondary socialization also influence the socialization mechanisms.

Here again we see similarities to Fowler's (1991) fourth faith stage. Fowler hypothesizes that the "synthetic-conventional faith" (p. 38) begins during the early adolescent years. "Cognitively, this stage is characterized by the emergence of formal operational thinking, the ability to reflect on and integrate past experiences, and concern about identity, the future, and concerns about personal relationships" (Fowler, 1991, p.38). According to Fowler, concerns about personal relationships, such as family members and peers, "correlates with a hunger for a personal relationship to God in which we feel ourselves to be known and loved in a deep and comprehensive way" (p. 38).

The final component in Wallace and Williams' (1997) framework is health outcomes. They suggest that the relationship between socialization mechanisms and health outcomes is dynamic, meaning that one may directly affect the other. In Brownfield and Sorenson's (1991) study which investigated religion's relationship to health outcomes, they suggest that one of the most important ways religion relates to drug use (and consequently other problem behaviors) is that it influences adolescents' selection of peers. Adolescents will be inclined to choose friends who do not engage in problem behaviors (Brownfield & Sorenson, 1991).

An adolescent's personal values and identities are thought to be influenced by religion. As noted by Williams (1994), "religious socialization, including identification with religious characters or groups, can play a critical role in the establishment of religious identity in particular, and identity formation in general" (p. 140). For many American young people, religion may be more than a set of rules, more than just going to church, choosing a denomination, or believing in God. For many, their religion, or more importantly, their personal relationship with God and the experiences they share with others of like mind, is central to their identity (Wallace & Williams, 1997). "If the religion with which these adolescents identify prohibits the use of drugs, extramarital sex, or other potentially health-compromising behaviors, it is likely that these young people will refrain from them" (Wallace & Williams, 1997, p. 464).

Wallace and Williams (1997) suggest that Fowler's (1991) fifth and final faith stage also corresponds to their framework in that in this stage adolescents and young adults re-evaluate their personal belief systems. These individuals question their

values to determine if they adhere to their values simply because that is what was ingrained in them by their parents or because they truly affirm them as their own. This is where they begin to form their autonomy in regards to decision making about relationships, identity, and religious beliefs. Although they may abandon their childhood teachings, the consequence of doing so may create a desire to surround themselves with individuals who represent the beliefs held by their parents.

Literature Review

Adolescence is typically regarded as the ages between thirteen and nineteen. Adolescents are faced with many uncertainties about their identity as well as their futures. They are at a point in life in which they come face to face with their decisions about life. Will they continue on in school? Will they decide to join the workforce? If they go to school, where will they go and what will they study? These decisions may feel threatening or life giving. The choices of activities to engage in or not to engage in also loom at nearly every turn. Will they follow the crowd or go against it and risk being rejected? If they do participate in a particular activity what will that do to their reputation or identity? Along with the uncertainties they face, this age group is confronted with many physical, emotional, and possibly spiritual changes, which also create an uncertainty about their identity. During this time of uncertainty, attempts to define "self" often result in experimentation. Excessive drinking of alcohol, smoking, and precocious sexual intercourse are just a few of the risky behaviors in which this group takes part. The following discussion will present the extent of these problems, along with the potential aftermath of participating in these behaviors.

Smoking

In the attempt to define the gravity of preventable chronic illness in the United States, the U.S. Department of Health and Human Services Centers for Disease Control and Prevention (CDC) published a report in 1999 entitled *Chronic Diseases and Their Risk Factors: The Nation's Leading Causes of Death*. In this report it was identified that chronic diseases take the lives of greater than 1.7 million people each

year, many of these diseases are preventable. Smoking alone is the antecedent for most of the deaths caused by chronic disease (DHHS, 1999). In adults, one-fifth of all death is due to smoking or other forms of tobacco abuse. This represents 430,000 lives each year (DHHS, 1999). Approximately 25 million people living today will die if they do not change their current patterns (DHHS, 1999). Kowalski (1996) reiterates the message of the CDC report by stating, "82% of all adults who ever smoked started before age eighteen" (p. 14).

In 1997, 36% of all high school students had smoked in the last 30 days (DHHS, 1999). This reflects an increase from the report of the National Longitudinal Study on Adolescent Health of 1994 which found that 25.7% of adolescents were current smokers (Resnick et al., 1997). The CDC also reports that approximately 3000 teenagers under the age of 18 become cigarette smokers each day (DHHS, 1999). Again, it is noted that if behaviors go unchanged, over one-third of teenage smokers will die of tobacco related illness (DHHS, 1999). It is reasonable then to suggest that smoking is a serious problem among the youth of today not only because of the implications of starting at a young age, but also because it has such grievous outcomes.

The American Lung Association in their *Fact Sheet* (1998) on the harmful effects of smoking, tells adolescents that smoking will slow the growth of their lungs. Kowalski (1996) suggests that smoking is directly related to 90% of all lung cancer cases and cigarette smoking is also related to heart disease, and chronic bronchitis, as well as emphysema. The CDC reports that someone who regularly smokes one or

more packs of cigarettes per day decreases their life expectancy by an average of 6.6 years (DHHS, 1999).

Not only does smoking present its own risks, it also has been found to be a predictor of other detrimental behaviors. In MacDonald's study, *Patterns of Alcohol Use and Drug Use among Adolescents* (1987), it was identified that participation in smoking in early adolescence became a good predictor of alcohol and drug use. Other similar studies showed that not only was smoking a good predictor of future alcohol and drug use, but also that in seventh and ninth grade students, future intention to smoke was also a positive predictor of future tobacco abuse or abstinence, accounting for 20% and 25% of the variance, respectively (Yamaguchi & Kandel, 1984). Both authors agree that research has underscored the necessity for prevention programs that focus on changing the intentions of adolescents to engage in risk behaviors (Yamaguchi & Kandel, 1984; MacDonald, 1987).

As stated before, smoking among adolescents is a serious problem. However, some recent studies have shown that there are some strategies which may help reduce the number of adolescents who begin smoking. The *National Longitudinal Study on Adolescent Health* of 1994 indicated that of their participants, smoking was less frequent in those who did not have a member of their household smoking (Resnick, et al., 1997). Not having a smoker living in the home hindered easy access to cigarettes. In that study it was also found that those participants whose parents were frequently present in the home, and who engaged in a greater number of shared activities between parents and adolescents were likely to be participants who refrained from smoking (1997).

In a longitudinal study of 2401 girls and boys first surveyed in middle school (seventh through ninth grades), Perry et al. (1992) found that after finishing high school 24.1% of the adolescents from the reference community were smoking, while only 14.6% of students who participated in a program incorporating multiple interventions such as behavioral education, booster programs to sustain training, and complementary community wide strategies were smoking.

Moss et al. (1993) suggests that another way to prevent or decrease smoking among adolescents is to provide non-smoking role models. One – half of all adolescent smokers have parents who smoke (Moss et al., 1993). The adolescent children of smokers are three times more likely to smoke if their parents and one older sibling smokes (Moss et al., 1993).

Alcohol Consumption

Alcohol consumption is also a risk behavior that is related to adult and adolescent morbidity and mortality. Although the medical consequences of drinking for adolescents have rarely been studied, Chassin and DeLucia (1996) show that adolescent alcohol abusers have elevated liver enzymes which is an early indicator of liver damage. Adolescents who abuse alcohol have also demonstrated poorer language function than those who do not abuse (Chassin & DeLucia, 1996). Again, studies suggest that early alcohol use, especially binge drinking, is associated with other risk behaviors. Cooper et al. (1994) studied alcohol and its relationship to sexual activity and found that adolescent alcohol use is associated with earlier initiation of sexual intercourse, more frequent encounters, as well as less frequent

condom use. Alcohol use also increases the risk for later use of illegal drugs (Yamaguchi & Kandel, 1984).

Motor vehicle accidents (MVA) are one of the two leading causes of death in people 10 to 19 years of age (DHHS, 2000B). Between the years 1996 to 1997, 55% (19,000) of all adolescent deaths were caused by MVA or firearm use (2000). In the *Health, United States, 1993* report 32% of all MVA among adolescents were related to alcohol use (DHHS, 1995).

The 1997 *Youth Risk Behavior Surveillance (YRBS)* found that 80% of the nations high school students had at least one alcoholic drink in their lifetime. In the same survey, 31% of the participants had reported that they had their first drink prior to the age of 13 (Kann et al., 1997). Fifty percent of the high school students surveyed had one or more drinks in the last 30 days, and of that 50%, nearly 34% had five or more drinks on one or more occasion in the last 30 days (Kann et al., 1997). The *Health, United States, 2000* report also analyzed alcohol use in the previous 30 days and found that 50% of its participants had also had one or more drinks. The report also broke down binge drinking (five or more drinks in one sitting) by gender. Twenty-eight percent of females had participated in binge drinking in the previous 30 days, while 35% of males had reported doing so (DHHS, 2000B).

Escobedo et al. (1995) also studied adolescents and alcohol use and found that it was not only related to other drug use, but also related to school performance. The occurrence of alcohol use, especially binge drinking, and alcohol, with other drug use, increased with age. It also increased while school performance had decreased. Early

first use of alcohol (14 years of age or less) was associated with a decrease in school performance (Escobedo et al., 1995).

The *Healthy People 2000* initiative has trended adolescent risk behaviors in order to set objectives to create a healthier nation. In 1993, heavy drinking had hit a low of 28% but increased to 31% in 1997. Fortunately, however, 31% was still lower than the projected objective of 32% by year 2000 (DHHS, 2000A).

The National Longitudinal Study of Adolescent Health also looked at adolescent drinking and noted some factors that are related to a decrease. Resnick et al. (1997) found in their study that the amount and frequency of alcohol consumed by an adolescent's parents was related to the adolescent's intake ($n = 3687$, $r = 0.38$, $p < 0.001$). The more the adolescent's parent drank in the home the more likely the adolescent was to engage in drinking. Drinking habits were positively effected ($n = 3687$, $r = -0.06$, $p < 0.001$) if the parents were found in the home more often. The more the parents were around when the adolescents were home, the less likely the students were to engage in consumption of alcohol. The study also found that drinking habits were positively effected when the adolescents identified themselves as being involved in religious activities ($n = 1760$, $r = -0.08$, $p < 0.001$), and that there was a correlation with the students' grade point average and alcohol consumption ($n = 1785$, $r = -0.15$, $p < 0.001$). While all correlations are noted as significant, the relationships between religion and drinking and parents being found frequently in the home and drinking in adolescents are weak. The significance of these relationships may be overestimated, due in part to the sample size.

Shoppe et al. (1996) performed another study looking at preventative measures in adolescent drinking. The study consisted of 1041 boys and girls in a twelfth grade program stressing the importance of social resistance training. The program focused on educating the students on the immediate effects of alcohol, the risk associated with alcohol abuse, and the multiple social pressures to abuse alcohol. The study found significant effects on the knowledge of alcohol prevention in the students who participated in the program ($p < 0.001$). In addition, the same students who had increased knowledge regarding alcohol prevention demonstrated better refusal skills than the control group ($p < 0.05$). Shoppe et al. (1996) sum up their thoughts on alcohol abuse prevention:

It would seem, then, that the best approach is to present a developmentally appropriate alcohol misuse prevention program at several consecutive grade levels, recognizing that young people will respond at different ages to different approaches, information, and social skills training. The ability to resist ongoing societal pressure to use and misuse alcohol must be taught, like mathematics and reading, continuously. True change in the norms and long-term outcomes of alcohol use cannot otherwise be expected (p. 797).

The goal of Project Northland peer participation efficacy trial funded by the National Institute on Alcohol Abuse and Alcoholism is to prevent or reduce alcohol use among young adolescents by using a community-wide approach (Komro et al., 1996). The intervention program targeted the class of 1998 in 1991 while they were sixth grade students in 24 school districts of Minnesota. Project Northland interventions included school-based skills training, parental participation, community-wide changes around the use of alcohol, and peer participation program. The school districts were randomized to either an intervention or reference condition.

Those students involved with the planning of the social events had significantly lower rates of alcohol use at the end of seventh grade and were less likely to intend to use alcohol when of legal drinking age (Komro et al., 1996). However, the study did not show a significant effect on the attenders of the program (Komro et al., 1996). Therefore, increased efforts may need to be made in student planning of social events.

Religion

The psychological study of religion began even before the formal founding of the American Psychological Association in 1892 (Donelson, 1999). The sociological study of religion and mortality was first pioneered by Durkheim. However, the topic of religion became inactive from about 1930 to 1960 (Donelson, 1999) with a renewed resurgence only recently (Elkind, 1999). Although past research has long noted religion's impact on adult health-related behaviors and outcomes (Hummer et al., 1999; Levin, 1994; Levin & Markides, 1986; Levin & Vanderpool, 1989; Stark, 1996; Williams & Forman, 1999; Wallace & Williams, 1997), relatively little research has examined the relationship between adolescent health and religion (Hawkins et al., 1992; Stark, 1996; Youniss et al., 1999). "Adolescents are an important sociodemographic group that is surprisingly absent from the growing body of research on the relationship between religion and health" (Wallace & Forman, 1999). In the U.S. Congress' report: *Adolescent Health* only two references were made in regards to religion in the entire 726 page report (DHHS, 1991A).

There is a larger literature investigating the relationship between religion and health outcomes in adults. Most of these studies have uncovered a beneficial association between religious involvement and health (Hummer et al., 1999).

Hummer et al. (1999) used a nationally representative sample of adults and questioned them about their demographics and health behaviors as well as their church attendance. The study found for the overall population life expectancy of those who attended church more than once per week was a mean seven years greater than those who did not attend ($p < 0.01$). The study also found that those who attended church one or fewer times per week also had a greater life expectancy than those who did not attend at all.

More than 30 years ago, social theory was delivered a blow in the monumental study in 1969 by Hirschi and Stark that reported that religious practice and belief had not the “slightest impact” on delinquent behavior. Five years later, Burkette and White (1974) reconfirmed these findings using a sample from the Pacific Northwest. In Starks (1996) article *Religion as context: Hellfire and delinquency one more time*, he relates that the initial investigation was limited to a particular region of the U.S. Upon reassessment, Stark noted that all of the studies that showed a positive effect of religion on delinquency had been done with samples from the “unchurched belt” running along the Pacific Coast. A delinquency study performed by Hindelang et al. (1981) noted that Seattle has one of the lowest church memberships (280 members per 1,000 people) and found a positive effect of religion on delinquency as cited by Stark (1996). Stark (1996) also notes a study done in the region with the highest church membership, Provo, Utah (966 members per 1,000 people) found a strongly negative relationship.

In 1996, Stark announced his conversion to the position that “religion has truly potent effects on delinquency” after looking at the data obtained from a large

national sample of high school students (Stark, p. 173). The study sampled 11,995 seniors in 1980, and included 1500 students from the Pacific region. The study found a negative correlation between church attendance and delinquent behaviors ($r = -0.31$, $p < 0.01$) (Stark, 1996). In the East ($r = -0.32$, $p < 0.01$), South ($r = -0.39$, $p < 0.01$), and Midwest ($r = -0.36$, $p < 0.01$) where church attendance is the highest, there are strong negative correlations. Conversely, in the Mountain ($r = -0.23$, $p < 0.05$) and Pacific ($n = 1566$, $r = -0.02$, $p < 0.05$) regions where church attendance is the lowest the correlation “vanishes” (Stark, 1996).

Although, these studies, as with others, do show a correlation between religion and church attendance and delinquent behaviors, they seldom control for the variables of parental relationships, self-esteem, school involvement, etc. In the Monitoring the Future Survey (MTF) of 1990, Bachman et al. (1993) found that students who were actively involved in community service were less likely to be involved in risky behaviors such as alcohol misuse or drug use. It should be noted that the students who were likely to get involved in community service were those with some religious affiliation (Bachman et al., 1993). Other studies based on social learning theories and social attachment theories have found that positive parent-child relationships increase parent’s success at using communication and behaviors to model and reinforce family values (Bandura, 1977). “Social learning theories assert that children and adolescents acquire their beliefs and involvement in problem behaviors from role models, through observation and imitation, social reinforcement, and positive expectations of future involvement in such behaviors” (Bandura, 1986, p. 182).

In an 18-year longitudinal study of 199 families, Judith Stein and Helen Garnier explored the influence of family values on adolescent problem behaviors. Problem behavior was defined as drug use, delinquency, dropout and sexual behavior (Garnier & Stein, 1998). Garnier and Stein found that traditional values showed some protection against problem behaviors, while egalitarian values showed some protection against delinquency, but increased the likelihood of drug use. This study also found evidence that a warm, supportive mother-child relationship significantly reduced the likelihood of adolescent involvement in problem behaviors (Garnier & Stein, 1998).

Summary

In conclusion, studies have shown that drinking alcohol and smoking are both problems in today's adolescent population. The deleterious effects of these behaviors as well as the extent of these problems have been presented in research. Previous studies were presented that showed there may be a relationship between engagement in risk behaviors and the parental relationships, school involvement, and community wide prevention programs available to adolescents. The available research on how religion influences these risk behaviors has been presented as well. However, there is question as to whether the studies are limited by the ability to obtain accurate reporting by the adolescents as well as by bias introduced by sample size or region in which the study was performed. The objective of this secondary analysis was to once more explore the relationship and possible benefits of religion for adolescent health. The findings from this continued exploration will aid those developing programs aimed at preventing adolescent drinking and smoking.

Research Questions

What is the relationship between church attendance and adolescent engagement in drinking alcohol and smoking?

What is the relationship between perceived importance of religion in an adolescent's life and engagement in drinking alcohol and smoking?

Definitions

Religious

Being religious or having religion is believing in and reverence for a supernatural power accepted as the creator and governor of the universe which influences or causes a "change in life or one's former tenets secondary to a transformation in one's framework of beliefs, values, traditions, doctrine, conduct, and rituals" (Walton, 1996, p. 237).

Risk Behaviors

Activities or practices that would potentially increase morbidity or mortality (eg. smoking, consumption of alcohol, precocious sexual activity, etc.).

Consumption of Alcohol

Any and all consumption of alcohol prior to 21 years of age is illegal in the U.S. and is considered a risky behavior. The conceptual definition of consumption of alcohol is consuming one or greater alcoholic beverage in one week's time (Wallace & Forman, 1996).

Smoking

Any and all consumption of cigarettes prior to the age of 18 years of age is illegal in the U.S. and is considered risky behavior. The conceptual definition of smoking for this study is consuming one or more cigarettes per day (Wallace & Forman, 1996).

CHAPTER THREE

METHODS

Design

This study is a secondary analysis of data obtained in the Monitoring the Future (MTF) project which began its work in 1975. The MTF project is both a cohort and longitudinal descriptive study aimed at looking at the trends of social behaviors (especially risky behaviors such as smoking, alcohol consumption, and illicit drug use) and attitudes in eighth, tenth, and twelfth graders.

The benefit of using a cohort as well as longitudinal design, is that it allows for follow up, trending, and comparison of student demographics, attitudes, beliefs, and behaviors from year to year. This secondary analysis specifically analyzed the data obtained from 12th grade students in the spring of 1999. The data were obtained from a descriptive questionnaire administered in a regular class period during the school year.

There are some limitations to using this type of design, one of which is that a survey does not directly address why the students behave or feel a certain way. The questionnaire only addresses the behaviors the students are currently engaged in or have previously participated in.

Another limitation to using the questionnaire is that there is not a way to confirm that the students took the questions seriously, or that they answered the questions truthfully. Due to the fact that the students were in a classroom setting, the students may have felt that they needed to answer the questions in such a way that they could “show off” for their classmates by answering the way they would expect them to. A third limitation is that the students may not have trusted the confidentiality agreement. Even though the students were assured that there was no way to track the responses on the survey to any particular person, the students may have been concerned that a parent or school or law officials may have access to the survey and be able to identify the student.

A final limitation noted by this investigator was that the students may have had difficulty understanding or interpreting a particular question. Although a research assistant was available to aid the student, he or she may not have indicated the need for help for fear of being teased by fellow students or thought less of by the research assistant.

These limitations were hard to eliminate. The students were encouraged to answer the questions honestly so the data obtained would be accurate and useful. The students were also assured several times both verbally as well as in writing that their responses would be completely confidential and that there was no way to track their questionnaires. Finally, a research assistant was available at all times to answer any questions and frequently asked if anyone had any questions. All assistants reported being encouraging and friendly to the students throughout the surveying process.

Subjects and Setting

During the spring session of 1999, confidential questionnaires were administered during regularly scheduled class periods. The questionnaires asked students to respond to basic background and demographic data as well as topics related to social practices and attitudes talked about later.

The subjects were high school 12th grade students enrolled in both public and private high schools. The students surveyed numbered 14,056, of which there were 6,410 (45.6%) males and 6,901 (49.1%) females. The schools surveyed were located in many different socioeconomic areas throughout 48 states in the United States of America (USA). The sample represents 135 different high schools.

First the geographic regions were selected, then the schools, and finally the students. The geographic areas included 28 of the largest cities in four identified locations: North East (n = 3,012 or 21.4%), North Central (n = 3,352 or 23.8%), South (n = 5,108 or 36.3%), and West (n = 2,584 or 18.4%). In the larger cities the study included two or more schools. In each school about 350 students were surveyed. If the school had fewer than 350 students, then all the seniors were included. If the schools had more than 350 seniors enrolled, the students were randomly sampled in a method that was convenient to the school and determined to be non-biased. All the students selected were given the opportunity to decline the opportunity to participate.

The ages of the respondents were reported as a dichotomy of less than 18 years of age (n = 6,350 or 45.2%) or greater than or equal to 18 years of age (n = 7,314 or 52.0%). The public data on race was compressed into three categories for

confidentiality purposes. The categories of race reported were black (n = 1,793 or 12.8%), white (n = 9,180 or 65.3%), and other (n = 3,083 or 21.9%), which included: Mexican American or Chicano, Cuban American, Puerto Rican, other Latin American, Asian American, American Indian (Native American Indian), or other.

Instrument

The instrument used for this study was the Monitoring the Future questionnaire (see Appendix A). The MTF questionnaire takes approximately 45 minutes to complete. The questionnaire consists of 109 questions that range from biographical and demographic data to inquiring about recent activities, drug and alcohol use, and sexual behavior. A number of the items have multiple sub-questions. This secondary analysis is focused on questions 2, 23, and 24 from section B; 13 b-c from section C; and questions 11a and 17a and b from section D.

In section C, questions 13 b-c, two questions were asked related to religion which addressed attendance at religious services and perceived importance of religion. The first question addressing religion was: "How often do you attend religion services?" The responses ranged from "never" (coded 1), "rarely" (2), "once or twice a month" (3), or "about once a week or more" (coded 4). The final question addressing the importance of religion in the student's life was worded as: "How important is religion in your life?" The responses and their coding are as follows: "not important" (1), "a little important" (2), "pretty important" (3), and "very important" (4).

Participation in smoking was addressed in three items. Two questions appeared in Section B (questions number one and two) and one in section D (question

17a). The first question was worded: “How frequently have you smoked cigarettes during the past 30 days?” Responses included “not at all” (1), “less than one cigarette per day” (2), “one to five cigarettes per day” (3), “about one-half pack per day” (4), “about one pack per day” (5), “about one and one-half pack per day” (6), and finally “two or more packs per day” (7). The second item in relation to smoking is: “In the future, do you think that you will smoke cigarettes?” Responses were “definitely will” (1), “probably will” (2), “don’t know” (3), “probably won’t” (4), and “definitely won’t” (5).

The consumption of alcohol was addressed by four items found in section B (questions numbered 23 and 24) and section D (questions numbered 11a and 17b). The first question was: “On the occasions that you drink alcoholic beverages, how often do you drink enough to feel pretty high?” The responses were: “on none of the occasions” (1), “on few of the occasions” (2), “on about half of the occasions” (3), “on most of the occasions” (4), and “on nearly all of the occasions” (4). The second question was: “How many times in the last two weeks have you had five or more drinks in a row?” Possible responses were “none” (1), “once” (2), “twice” (3), “three to five times” (4), “six to nine times” (5), and “ten or more times” (5). The final item asked: “On how many occasions (if any) have you been drunk or very high from drinking alcoholic beverages in your lifetime?” The responses were: “zero occasions” (1), “one – two occasions” (2), “three – five occasions” (3), “six – nine occasions” (4), “10-19 occasions” (5), “20-39 occasions” (6), and “40 or more occasions” (7).

Procedures

Early in the fall semester of a given year each school selected and the principal is sent a letter of invitation (see Appendix B). (The details on how each school is chosen is outlined in the sample portion of this paper.) The letter describes the study and asks for approval for the school to participate in the study. In some cases the principal may not be able to give such permission and must forward the request on to a higher education official. After the initial letter of invitation the principals receive a follow-up phone call. After the school agrees to participate in the study arrangements are made for the random selection of the students.

Approximately ten days before the administration of the questionnaire the students are given a flyer explaining the study (see Appendix C). The flyer tells the students that they will be invited to participate in the study and stresses that their participation is completely voluntary as well as confidential. Also, advanced letters are sent to the parents to inform them of the study providing them with the opportunity to decline their child's participation in the study. The letter to the parents includes an implicit parental consent form (see Appendix D). The actual administration of the questionnaire is done by research assistants from the Institute for Social Research (ISR), at the University of Michigan, Ann Arbor. The questionnaires are administered in classrooms during a normal class period. The teachers are not asked to do anything except to introduce the ISR staff and to remain present in order to help promote adherence to normal classroom guidelines. The teachers are asked to not walk around the room so that the students feel free to answer the questions without fear of the teacher seeing their responses.

The students are provided with a sharpened number 2 pencil to use on the scan sheets. Most students are able to finish the questionnaire in a 45 minute class period. For those who are unable to finish in that time frame, a few extra minutes are allowed.

As noted before in this paper, ten days prior to the administration of the questionnaire students are given a flyer which stresses confidentiality and voluntary participation in the study. This is repeated again in the letter to the parents and to the students prior to the administration of the questionnaire (see Appendix E). The ISR staff verbally explains the reasons for the survey and instructions are given for filling out the questionnaire. The staff also tells the class at the start of the actual questionnaire that any student who does not wish to participate is free to work quietly on his/her own work during the class period. Also printed on the top of the questionnaire is this statement about the students' participation: "This study is completely voluntary. If there is any question you or your parents would find objectionable for any reason, just leave it blank" (Bachman, Johnston, O'Malley, 1999). No identifying information is asked of the students. Once the students are finished with the questionnaire, they turn in their scan sheets to the ISR personnel. The data are then analyzed by the ISR and results are published on the internet, journals, and periodicals.

CHAPTER FOUR

DATA ANALYSIS

This secondary analysis is of data collected in the spring of 1999. The data compilation and primary analysis was performed by the Institute for Social Research at the University of Michigan in Ann Arbor, Michigan. The research questions for this secondary analysis are: What is the relationship between church attendance and adolescent engagement in drinking alcohol and smoking? And, What is the relationship between perceived importance of religion in an adolescent's life and engagement in drinking alcohol and smoking?

From the national sample of students surveyed ($N = 14,056$), descriptive analyses of the individual questions discussed in the methods portion of this paper were performed. These items were analyzed by the Statistical Package for Social Studies (SPSS) program. For testing research hypotheses the Spearman's Rho test was used as both the independent variables (church attendance and perceived religious importance) and dependent variables (frequency of smoking, intention to smoke, drinking until high, greater than five drinks at a time, and number of times being drunk) are all measured on an ordinal scale.

In the administration of the MTF survey, six different questionnaires were used. A majority of the questions on each questionnaire were found on all forms,

representing the “core questions”. Therefore every student surveyed was given the opportunity to answer the core questions. However, there were additional questions on each form that were not addressed on the remaining forms. For this secondary analysis, three questions were utilized on form six that were not a part of the core questions. Therefore, these items were analyzed separately.

Descriptive Analysis of Smoking Variables

The first question used to assess smoking status was: “Have you ever smoked cigarettes?” (n = 13,813) If the student’s response was “none” they were directed to skip the following question: “How frequently have you smoked cigarettes in the last 30 days?” (n = 13,799) There was an additional item that addressed smoking on form six of the questionnaire that asked: “In the future do you think that you will smoke cigarettes?” (n = 2,090) The responses to these questions with the frequency reports are found respectively in Tables 1, 2, and 3. As noted in the following tables 2/3 of the students reported having tried smoking cigarettes at some point in their lifetime.

Table 1.

Report of Lifetime Experience in Smoking

Response	n (%)
Never	4,880 (34.7%)
1 – 2 X	3,064 (21.8%)
Occasionally	2,263 (16.1%)
Regularly in Past	1,087 (7.7%)
Regularly Now	2,519 (17.9%)

Table 2.

Report of Smoking Frequency in Last 30 Days

Response	n (%)
Not at all	9,102 (64.8%)
<1 cigarette per day	1,508 (11.2%)
1 – 5 per day	1,385 (9.9%)
½ pack per day	973 (6.9%)
1 pack per day	564 (4.0%)
1 ½ pack per day	129 (0.9%)
2+ pack per day	66 (0.5%)

Table 3.

Report of Future Intentions to Smoke

Response	n (%)
Definitely Will	87 (4.2%)
Probably Will	234 (11.2%)
Don't Know	212 (10.1%)
Probably Won't	353 (16.9%)
Definitely Won't	1,204 (57.6%)

While 2/3 of the participants had reported trying cigarettes, approximately 60 percent of those students had not smoked in the last 30 days. It is also encouraging to note that greater than 50 percent of the students from the sub-sample responding to Form 6, reported they had no intentions to smoke in the future.

Descriptive Analysis of Alcohol Variables

Consumption of alcohol was assessed using two questions. The first question addressed was: "On the occasions that you drink alcoholic beverages how often do you drink enough to feel pretty high?" (n = 9,139) The second question used in this secondary analysis to analyze drinking behavior was: "Think back over the last two weeks. How many times have you ever had five or more dinks in a row?" (n = 13,266) Two additional items found only on Form 6 addressed drinking habits and future intention to drink. The first question asked: "In the future do you think that you will drink alcoholic beverages?" (n = 2,091) The last question on Form 6

inquired: "On how many occasions have you been drunk or very high from drinking alcoholic beverages in your lifetime?" (n = 2,079) The responses to these items and their frequency reports are found in Tables 4, 5, 6, and 7.

Table 4.

Report of Frequency of Alcohol Intoxication

Response	n (%)
None of times when drink	2,061 (22.6%)
Few	2,350 (25.7%)
Half	1,345 (14.7%)
Most	1,964 (21.5%)
Nearly All times when drink	1,419 (15.5%)

Table 5.

Report of Alcohol Consumption in Last Two Weeks

Response	n (%)
None	9,172 (69.1%)
Once	1,381 (10.4%)
Twice	1,018 (7.7%)
3 – 5X	1,138 (8.6%)
6 – 9X	349 (2.6%)
10+ times	208 (1.6%)

Table 6.

Report of Future Intention to Drink Alcohol

Response	n (%)
Definitely Will	496 (23.7%)
Probably Will	793 (37.9%)
Don't Know	319 (15.3%)
Probably Won't	166 (7.9%)
Definitely Won't	317 (15.2%)

Table 7.

Report of Lifetime Experience Being Drunk

Response	n (%)
0 occasions	740 (35.6%)
1-2X	260 (12.5%)
3-5X	202 (9.7%)
6-9X	163 (7.8%)
10-19X	184 (8.9%)
20-39X	179 (8.6%)
40+ Occasions	351 (14.9%)

In Table 5, it is important to note that 2/3 of the respondents reported they had not had an alcoholic drink in the previous two weeks. It is also noteworthy that only 1/4 of the sub-sample reported they would definitely engage in drinking alcohol in the future (Table 6). This study, however, did not ask whether the respondents would drink only after they reach the legal drinking age, nor did the study inquire whether they intended to get drunk when they did start drinking. It also must be noted, unfortunately, that 2/3 of the 2,079 respondents to Form 6 have been drunk at one point in their life.

Descriptive Analysis of Religious Variables

Religion was evaluated by using two questions as well. The first item was worded as follows: "How often do you attend religious services?" (n = 10,944) The

second question addressed how the student viewed religious importance and was worded: “How important is religion in your life?” (n = 10,934) The responses to these items and the frequency distributions are found in Tables 8 and 9.

Table 8.

Report on Frequency of Attendance at Religious Services

Response	n (%)
Never	1,444 (13.2%)
Rarely	3,824 (34.9%)
1 – 2X per month	1,935 (17.7%)
1+ times per week	3,741 (34.2%)

Table 9.

Report on Perceived Importance of Religion

Response	n (%)
Not Important	1,396 (12.8%)
Little Importance	2,651 (24.2%)
Pretty Important	3,266 (29.9%)
Very Important	3,621 (33.1%)

It is noted in Table 9, that nearly 2/3 of the respondents reported that they felt that religion was pretty important or very important in their lives.

Analysis

As mentioned before in this chapter, the Spearman's Rho test was utilized to analyze the correlations among each of the variables. All of the relationships identified were determined to be significant.

The relationship between the smoking variables and the religion variables showed significant correlations ($p = 0.001$) as seen in Tables 10 and 11. Future intentions to smoke was addressed on Form 6 only, and was significantly correlated to the number of religious services attended and perceived importance of religion (Tables 10 and 11).

Table 10.

Relation of Attendance at Religious Services with Reported Smoking Behaviors

Smoking	Spearman's Rho*	n
Lifetime experience of smoking	-.190	10,853
Number of cigarettes in last 30 days	-.166	10,845
Future intentions to smoke	-.160	1,663

*All correlations are significant ($p < .001$, 2-tailed).

Table 11.

Relation of Perceived Importance of Religion with Reported Smoking Behaviors

Smoking	Spearman's Rho*	n
Lifetime experience of smoking	-.185	10,846
Number of cigarettes in last 30 days	-.159	10,839
Future intentions to smoke	-.187	1,659

***All correlations are significant ($p < .001$, 2-tailed).**

Similar results were found in regards to drinking of alcoholic beverages. Significant relationships were found among each of the items analyzed. On Form 6, the students were asked to respond to questions about lifetime experiences of being drunk and future intentions to drink, both of which were found to have significant relationships with the number of religious services attended and perceived importance of religion (Tables 12 and 13).

Table 12.

Relation of Attendance of Religious Services with Reported Alcohol Consumption

Alcohol Consumption	Spearman's Rho*	n
Number of times drank enough to feel high	-.166	10,845
Number of times 5+ drinks in a row in last 2 weeks	-.137	7,283
Number of times drunk in lifetime	-.237	1,654
Future intentions to drink	-.162	1,663

*All correlations are significant ($p < .001$, 2-tailed)

Table 13.

Relation of Perceived Importance of Religion with Reported Alcohol Consumption

Alcohol Consumption	Spearman's Rho*	n
Number of times drank enough to feel high	-.185	10,846
Number of times 5+ drinks in a row in last 2 weeks	-.159	10,839
Number of times drunk in lifetime	-.262	1,650
Future intentions to drink	-.185	10,846

* All correlations are significant ($p < .001$, 2-tailed).

Although correlation coefficients among the variables were small, all the relationships were significant. Future analyses need to be performed to validate these findings.

CHAPTER FIVE

DISCUSSION

The research questions in this study were: What is the relationship between church attendance and adolescent engagement in drinking alcohol and smoking? And, what is the relationship between perceived importance of religion in an adolescent's life and engagement in drinking alcohol and smoking?

Although there is not a large body of research on religion and adolescents, the research that does explore the relationship typically uses small, non-representative samples. Also, much of the research on adolescents focuses on the problems and negative attributes associated with risky behaviors that this group engages in. This study as well as a few others that were mentioned in the literature review, have identified some protective measures that could be taken to prevent adolescent engagement in risky behavior. This secondary analysis found that there is a relationship between the frequency of attendance of religious services and the perceived importance of religion in one's life and the engagement in smoking and drinking alcohol.

The relationship between religious attendance and religious importance and risk behaviors are weak to moderate. Nevertheless, the results of this secondary analysis are generally consistent with the conceptual framework and previous studies

of the same nature. This study used a large national sample and a broad conceptual framework hypothesizing that religion does not only simply constrain behavior, but also encourages an adolescent's involvement in behavior that can protect his or her health. On average, the students who attend church weekly and report a high perception of religious importance are less likely to engage in smoking and drinking.

Although this study's findings support the hypothesis that religion may help deter adolescents from risky behavior, and the religious component of Wallace and William's socialization model, it remains unclear as to whether religion was the only protective component in the study. For example, Resnick et al. (1997) found that parents play a pivotal role in prevention. In their study, findings suggested students who had parents frequently in the home and who frequently engaged in shared activities, engaged in smoking and drinking less often. This secondary analysis did not look at the other relationships that might play a role in preventing risky behavior. Resnick et al. (1997) found that a large part of prevention of risk behaviors in adolescents was largely due to multiple factors, not just religion. For example, students with high grade point averages and those who reported high attendance at religious services, with non-smoking, non-drinking parents who were frequently found in the home, were the least likely candidates for engaging in smoking and drinking. While this secondary analysis had a much larger sample, Resnick et al. also used a national sample. Their study had a smaller sample size ($n = 3,687$) than this secondary analysis, and in cases of larger samples a significant correlation is obtained with coefficients attaining a lower absolute value. It is noted that Resnick et al. found that having parents who did not drink or smoke ($r = 0.38$), showed a stronger

relationship to adolescent drinking than religious attendance ($r = -0.08$) or high grade point averages ($r = -0.15$). However, religion did show a stronger relationship to adolescent drinking than parental involvement in the student's life ($r = -0.06$). The relationships between GPA, religion, and parental involvement in the adolescent's life while significant, are weakly correlated in comparison to parental drinking habits.

The only study that was similar both in content as well as sample size was the 1996 study by Stark. That study also reported the findings by region of the United States. There were negative correlations in all regions, but correlations between the variables were stronger in the East, South, and Midwest. Stark compared previous studies which analyzed similar variables and found that the Mountain and Pacific regions consistently reported lower or absent correlations. It should be noted that Stark's study, like this secondary analysis, did not investigate other factors that may be related to abstinence from risky behaviors.

Bachman et al. (1993) performed a secondary analysis of the Monitoring the Future data from 1990, examining community service as a potential deterrent to engagement in risk behaviors and found there was a relationship. The Bachman study, which was similar in size to that of the current study also found that those students who refrained from engaging in smoking and drinking, and who were involved in community service, also reported being actively involved in religious activities.

Many of the studies in the literature review are different from this secondary analysis, in that they did not specifically explore religious variables, nor did many of the studies contain similar sample sizes. It is noted that while the previous studies mentioned have controlled for various factors, such as peers, school activities and

achievement, parental and community factors, this secondary analysis did not account for other influences.

Limitations

There are several limitations of the study discussed in this section. The first limitation is the amount and quality of data available from the primary study. The second limitation is that it was a self-reported questionnaire administered to adolescents in a classroom setting. The third is that a more extensive instrument would have been more efficient in qualifying religious beliefs in a quantitative measure.

The first limitation of this study is unavoidable in a secondary analysis. The only data available to analyze is that which was already collected in the primary study, and furthermore did not ask the questions in context to one another. For instance, when asking how often a respondent drank alcohol to get drunk, the questionnaire did not investigate whether religious beliefs played a role in the decision to engage or refrain from drinking. Further, the data available to the public was not the entire data set from the primary study. For example, the ages of the respondents, as well as the races of the respondents were compressed into nominal level categories due to confidentiality purposes, limiting the information available to analyze the demographics of the respondents. Additionally, this research was also limited by the variables that were omitted from the public data set. Certain variables pertinent to the research questions (denominational affiliation) were unavailable. Again, the organization that published the data on the Internet felt it would be more appropriate to omit variables that may impinge on the confidentiality agreement.

A second limitation of this study is the inability of the researcher to assure that the students answered the questionnaire truthfully. This is a limitation in all self-reported surveys. However, in the setting of a classroom it would be even more challenging to ascertain that the students responded with complete honesty due to the close proximity of peers or teachers. Also, fear of being “found out” by a principal or someone else in authority may have inhibited the student from responding truthfully. There is no way to determine if the data obtained are representative of the entire adolescent population, but a qualitative component may be beneficial in obtaining more candid responses. However, a completely qualitative study is limited by the small number of participants enrolled.

A third and final limitation discussed in this paper is the inability to qualify religious practices and perception in a quantitative study. How an individual feels about religious practices or how much the perceived importance of religion impacts daily decisions should have been addressed. The development of an instrument which better suits the investigation of the relationship between these variables is suggested. The tool should phrase questions regarding religious practices in context with the behavior being investigated. It would also be valuable to ask the respondents candidly if they feel that their religious beliefs influence their behavior. Additionally, it would be beneficial to incorporate a qualitative component to the quantitative instrument.

Recommendations

Recommendations for Nursing Practice

Nursing usually looks at the adolescent and states, "He/she has a problem" and proceeds to list all the shortcomings. The nurse is consistently seeking to "fix" all their deficits when the emphasis should be placed on the capabilities and potentials of adolescents (Salebey, 1992). When examining measures that provide protection against engagement in risky behaviors, it is important to also look at other factors such as parental involvement, scholastic achievement, community involvement, and involvement in school activities. This study has shown that religious involvement may have a positive connection to the prevention of the morbidity associated with smoking and drinking, but fails to look at other contributing factors. This finding should reiterate that nursing needs to be sure to assess the adolescent client's religious beliefs as well as determine how those beliefs shape that adolescent's choices in life. Religious practices may indeed be a protective factor in an individual's life, but nursing may need to focus energy in multiple dimensions in order to best support adolescents in making healthy choices.

Recommendations for Intervention

Intervention is used at all levels of care, including primary, secondary, and tertiary care. Intervention comes in a variety of forms as well. Two examples of primary care or prevention, which will be discussed, are education and support.

Education is beneficial in almost every avenue of nursing. Education can be multifaceted when it comes to prevention. For example, one can educate the client, but also may find it beneficial to educate the parents or family, and the community as

well. In educating the client, the parents and family, as well as the community, a inherent support system is formed to help reinforce the teaching.

In the literature review, information was presented which indicated that successful programs focused on educating adolescents about risky behaviors and their consequences, followed by reinforcement of that education. Both Shoppe et al. (1996) and Komro et al. (1996) found that when students were focused on helping other students they often refrained from engaging in risky behavior. The students who participated in these studies were involved in prevention by planning alternatives to parties that may influence adolescents to engage in risky behaviors. The students in turn used the activities as opportunities to educate their peers on the consequences of risky behavior.

Bachman et al. (1993) took helping others to another level and examined the relationship between community service and engagement in risk behaviors. The findings suggested that involvement in community service did deter some risky behavior. They also noted that many students who involved themselves in community service did so through religious organizations. Based on this information, it seems that having students encourage their friends to join them in participating in prevention programs, religious activities or those organization involved in community service, would act as a deterrent for risky behavior.

Support of adolescents during this tumultuous time is also important. Not only is emotional support imperative, but social support as well. This would include encouraging adolescents to develop healthy relationships with family members, peers, and their community. Nurses can also provide support in scholastic endeavors by

showing concern over academic achievements and encouraging extra-curricular activities. This secondary analysis presented data that indicated that perceived importance of religion in an adolescent's life provided protection against engagement in risky behaviors. Those involved in the lives of adolescents should also support these individuals in their religious practices.

Recommendation for Research

As mentioned in the literature review of this paper, research involving the variables studied in this secondary analysis is limited. Further research needs to be done to determine if these findings are valid and consistent, and to broaden the research available on adolescent health and religion as well.

If this study were to be replicated some modifications are recommended. Even though the data set was obtained from a national sample, one change would be to assure that students from every area of the country were included. This study had a large number of participants, but was limited to the North East, North Central, West, and South regions of the Nation. As Stark's (1996) research would indicate, it is important to incorporate all areas in the country. It would also be beneficial when exploring the findings, to differentiate between the regions of the U.S. to determine if the relationships were related to the regions. It would then be interesting to compare these data with Stark's data, to determine if the information was consistent.

Another recommendation for this study would be to provide a more private setting to administer the survey. The respondents might feel more at liberty to be honest if they were not surrounded by their peers. Although confidentiality was stressed numerous times, some students may have felt inhibited by their surroundings.

A third recommendation for expansion of this study would be to gain access to the omitted variables and compressed data. As mentioned in the limitations section of this paper, data on age and race were compressed due to confidentiality concerns. Confidentiality was also a reason why some variables were omitted from the public data set. Additionally, a qualitative component would expand the survey to include a more in depth-descriptive analysis of why adolescents engage in risk behaviors or why they refrain. It would also allow for a more comprehensive analysis of the variables in relationship to each other.

In relation to the conceptual framework, while it is broad and comprehensive, it may prove valuable to explore the relationships between the secondary socialization influences. This study looked at religion specifically, however, Wallace and William (1997) posit that religion, peer influence, and school are inter-related. A study designed to explore the inner-workings of these relationships would also examine the mechanisms by which these relationships work. For instance, religion may provide social control to some adolescents, but to others it may act as a social support. The same is true for peer and school influences.

While it is difficult to determine if religion is truly a protective factor, this study established that it does have a significant relationship to the variables of smoking and drinking alcohol. This study also identified that there is a relationship between religious beliefs and future intentions to engage in smoking and drinking. Again, it is noted that while the correlations are weak, the relationships are still significant. Further, it would be recommended to continue to explore the relationships between these variables, as well as others. It is difficult to define one's

beliefs using the data from a few questions on a large survey. A final recommendation would be to perform a study using an instrument designed with the intention to analyze religion and religious practices and beliefs and how those beliefs impact one's health.

Summary and Conclusion

This study was a secondary analysis of data from a national survey of 135 high schools throughout the nation, including both rural and urban settings. A sample of 14,056 twelfth grade students participated in the survey. This study explored the relationships between religious attendance, perceived importance of religion, and smoking and consumption of alcohol in adolescents. Very little research was found on the relationship between religion and adolescent health, indicating a need for more investigations. This study found that the greater number of times an individual attended religious services the less they reported engaging in smoking and drinking. Future intention to smoke or drink and attendance at religious services was also found to have a significant inverse relationship. Perceived importance of religion, as reported by the adolescent, although weakly correlated, was also found to be inversely related to smoking and drinking. While all relationships examined in this secondary analysis were found to be significant, the correlations were weak and may indicate overestimation due to the large sample size.

APPENDICES

Appendix A

This is an example of the entire questionnaire used for the 12th grade students during the 1999 survey. However, for this secondary analysis only the following items were analyzed:

Section B:

#2
#23
#24

Section C:

#13 b
#13 c

Section D:

#11 a
#17 a
#17 b

APPENDIX A: MTF Questionnaire Form 6

PART A

• ~~Some of the questions on this page may be repeated on other pages.~~

1. How satisfied are you with your life as a whole these days?

- 1 Completely dissatisfied
- 2 Quite dissatisfied
- 3 Somewhat dissatisfied
- 4 Neither, or mixed feelings
- 5 Somewhat satisfied
- 6 Quite satisfied
- 7 Completely satisfied

2. The next questions ask about the kinds of things you might do. How often do you do each of the following? (Mark one circle for each line.)

- a. Watch TV 1 2 3 4
- b. Go to movies 1 2 3 4
- c. Go to rock concerts 1 2 3 4
- d. Ride around in a car (or motorcycle) just for fun 1 2 3 4
- e. Participate in community affairs or volunteer work 1 2 3 4
- f. Actively participate in sports, athletics or exercising 1 2 3 4
- g. Get together with friends informally 1 2 3 4
- h. Go shopping or window-shopping 1 2 3 4
- i. Spend at least an hour of leisure time alone 1 2 3 4
- j. Read magazines 1 2 3 4
- k. Read newspapers 1 2 3 4
- l. Go to taverns, bars or nightclubs 1 2 3 4
- m. Go to parties or other social affairs 1 2 3 4
- n. Go to video arcades 1 2 3 4

The next questions ask about the kinds of things you might do. How often do you do each of the following?

3. How often do you feel that the school work you are assigned is meaningful and important?

- 1 Almost always
- 2 Often
- 3 Sometimes
- 4 Seldom
- 5 Never

4. How interesting are most of your courses to you?

- 1 Very exciting and stimulating
- 2 Quite interesting
- 3 Fairly interesting
- 4 Slightly dull
- 5 Very dull

5. How important do you think the things you are learning in school are going to be for your later life?

- 1 Very important
- 2 Quite important
- 3 Fairly important
- 4 Slightly important
- 5 Not at all important

6. Now thinking back over the past year in school, how often did you...

- a. Enjoy being in school? 1 2 3 4
- b. Hate being in school? 1 2 3 4
- c. Try to do your best work in school? 1 2 3 4
- d. Find the school work too hard to understand? 1 2 3 4
- e. Fool around in class? 1 2 3 4
- f. Fail to complete or turn in your assignments? 1 2 3 4
- g. Get good grades (the As or Bs)? 1 2 3 4
- h. Get sent to the office, or have to stay after school, because you misbehaved? 1 2 3 4
- i. Skip a day of school, or part of a day (without permission)? 1 2 3 4

7. Now thinking back to the time when you were in 7th and 8th grade, how often did you...

- a. Enjoy being in school? 1 2 3 4
- b. Hate being in school? 1 2 3 4
- c. Try to do your best work in school? 1 2 3 4
- d. Find the school work too hard to understand? 1 2 3 4
- e. Fool around in class? 1 2 3 4
- f. Fail to complete or turn in your assignments? 1 2 3 4
- g. Get good grades (the As or Bs)? 1 2 3 4
- h. Get sent to the office, or have to stay after school, because you misbehaved? 1 2 3 4
- i. Skip a day of school, or part of a day (without permission)? 1 2 3 4

1. How often do your parents (or stepparents or guardians) do the following?

- a. Check on whether you have done your homework ① ② ③ ④
- b. Provide help with your homework when it's needed ① ② ③ ④
- c. Require you to do work or chores around the home ① ② ③ ④
- d. Limit the amount of time you can spend watching TV ① ② ③ ④
- e. Limit the amount of time you can go out with friends on school nights ① ② ③ ④

2. To what extent have you participated in the following school activities during this school year?

- a. School newspaper or yearbook ① ② ③ ④ ⑤
- b. Music or other performing arts ① ② ③ ④ ⑤
- c. Athletic teams ① ② ③ ④ ⑤
- d. Academic clubs (e.g., science, math, language) ① ② ③ ④ ⑤
- e. Student council or government ① ② ③ ④ ⑤
- f. Other school clubs or activities ① ② ③ ④ ⑤

3. Have you ever had to repeat a grade in school?

- ① No
- ② Yes, one time
- ③ Yes, two or more times

4. Did you ever attend summer school to make up for poor grades or to keep from being held back?

- ① No
- ② Yes, one summer
- ③ Yes, two summers
- ④ Yes, three or more summers

5. Have you ever been suspended or expelled from school?

- ① No
- ② Yes, one time
- ③ Yes, two or more times

6. During the LAST FOUR WEEKS, on how many days (if any) did you carry a gun to school?

- ① None
- ② One day
- ③ Two days
- ④ 3-5 days
- ⑤ 6-9 days
- ⑥ 10 or more days

14. During the past 12 months, has anyone made an offer at school to sell or give you an illegal drug (or actually sold or given you one at school)?

- ① No
- ② Yes

15. In your present school, how vigorous are the teachers and administrators in their attempts to prevent students from...

- a. Smoking? ① ② ③ ④ ⑤ ⑥
- b. Drinking? ① ② ③ ④ ⑤ ⑥
- c. Drug use? ① ② ③ ④ ⑤ ⑥

16. How severe do you think the consequences would be for a student in your school who gets caught...

- a. Smoking? ① ② ③ ④ ⑤ ⑥
- b. Using (or possessing) alcohol? ① ② ③ ④ ⑤ ⑥
- c. Using (or possessing) an illegal drug? ① ② ③ ④ ⑤ ⑥

17. The next questions ask for your opinions on the effects of using certain drugs and other substances. How much do you think people risk harming themselves (physically or in other ways), if they...

- a. Smoke one or more packs of cigarettes per day ① ② ③ ④ ⑤ ⑥
- b. Try marijuana once or twice ① ② ③ ④ ⑤ ⑥
- c. Smoke marijuana occasionally ① ② ③ ④ ⑤ ⑥
- d. Smoke marijuana regularly ① ② ③ ④ ⑤ ⑥
- e. Try cocaine once or twice ① ② ③ ④ ⑤ ⑥
- f. Take one or two drinks nearly every day ① ② ③ ④ ⑤ ⑥
- g. Take four or five drinks nearly every day ① ② ③ ④ ⑤ ⑥
- h. Have five or more drinks once or twice each weekend ① ② ③ ④ ⑤ ⑥
- i. Take steroids for body-building or improved athletic performance ① ② ③ ④ ⑤ ⑥
- j. Take MDMA (ecstasy) once or twice ① ② ③ ④ ⑤ ⑥

18. Individuals differ in whether or not they disapprove of people doing certain things. Do YOU disapprove of people (who are 18 or older) doing each of the following?
(Mark one circle for each line.)

- Very Disapprove
Disapprove
Strongly Disapprove
- a. Smoking one or more packs of cigarettes per day (1) (2) (3)
 - b. Trying marijuana once or twice (1) (2) (3)
 - c. Smoking marijuana occasionally (1) (2) (3)
 - d. Smoking marijuana regularly (1) (2) (3)
 - e. Trying cocaine once or twice (1) (2) (3)
 - f. Taking one or two drinks nearly every day (1) (2) (3)
 - g. Taking four or five drinks nearly every day (1) (2) (3)
 - h. Having five or more drinks once or twice each weekend (1) (2) (3)
 - i. Taking steroids for body-building or improved athletic performance (1) (2) (3)
 - j. Trying heroin once or twice without using a needle (1) (2) (3)
 - k. Taking heroin occasionally without using a needle (1) (2) (3)
 - l. Taking MDMA (ecstasy) once or twice (1) (2) (3)

19. How difficult do you think it would be for you to get each of the following types of drugs, if you wanted some?
(Mark one circle for each line.)

- Very Difficult
Difficult
Somewhat Difficult
Not Difficult
- a. Marijuana (pot, weed) (1) (2) (3) (4)
 - b. LSD (1) (2) (3) (4)
 - c. PCP (angel dust) (1) (2) (3) (4)
 - d. MDMA (ecstasy) (1) (2) (3) (4)
 - e. Crystal meth ("ice") (1) (2) (3) (4)
 - f. Steroids (1) (2) (3) (4)
 - g. Alcohol (1) (2) (3) (4)

PART B

* 1. Have you ever smoked cigarettes?

- (1) Never—GO TO QUESTION 13
- (2) Once or twice
- (3) Occasionally but not regularly
- (4) Regularly in the past
- (5) Regularly now

* 2. How frequently have you smoked cigarettes during the past 30 days?

- (1) Not at all—GO TO QUESTION 6
- (2) Less than one cigarette per day
- (3) One to five cigarettes per day
- (4) About one-half pack per day
- (5) About one pack per day
- (6) About one and one-half packs per day
- (7) Two packs or more per day

3. During the last 30 days, about how many times (if any) have you bought cigarettes...
(Mark one circle for each line.)

- a. ...by having a friend or relative buy them for you? (1) (2) (3) (4) (5) (6) (7)
- b. ...on your own from vending machines? (1) (2) (3) (4) (5) (6) (7)
- c. ...through the mail? (1) (2) (3) (4) (5) (6) (7)
- d. ...in a store where you pick up the pack (or carton) and bring it to the check-out counter? (1) (2) (3) (4) (5) (6) (7)
- e. ...in a store where the clerk has to hand you the pack or carton? (1) (2) (3) (4) (5) (6) (7)

4. During the last 30 days, about how many times (if any) did YOU buy cigarettes for your own use...

- a. ...at a big supermarket? (1) (2) (3) (4) (5) (6) (7)
- b. ...at a small grocery store? (1) (2) (3) (4) (5) (6) (7)
- c. ...at a drugstore? (1) (2) (3) (4) (5) (6) (7)
- d. ...at a convenience store (like a Hop-In or 7-11) or a gas station? (1) (2) (3) (4) (5) (6) (7)

5. What brand of cigarettes do you usually smoke?
(Brands are in alphabetical order. Mark only one.)

- | | | |
|---------------------------------------|---------------------------------|--------------------------------------|
| <input type="radio"/> Basic | <input type="radio"/> Kent | <input type="radio"/> Parliament |
| <input type="radio"/> Benson & Hedges | <input type="radio"/> Kool | <input type="radio"/> Salem |
| <input type="radio"/> Black & Whites | <input type="radio"/> Marlboro | <input type="radio"/> Vantage |
| <input type="radio"/> Cambridge | <input type="radio"/> Merit | <input type="radio"/> Virginia Slims |
| <input type="radio"/> Camel | <input type="radio"/> Misty | <input type="radio"/> Winston |
| <input type="radio"/> Capri | <input type="radio"/> Monarch | |
| <input type="radio"/> Carlton | <input type="radio"/> More | <input type="radio"/> Other |
| <input type="radio"/> Doral | <input type="radio"/> Newport | <input type="radio"/> No usual brand |
| <input type="radio"/> GPC | <input type="radio"/> Pall Mall | |

6. The last time that you tried to buy cigarettes in a store or gas station, were you asked for proof of age?

- I never tried to buy cigarettes at a store or gas station
 No, they didn't ask me and they sold me the cigarettes
 No, they didn't ask but they didn't sell me the cigarettes
 Yes, I was asked for proof of age

6a. If yes, what happened?

- I showed some ID and got the cigarettes
 I showed some ID but they refused to sell me the cigarettes
 I didn't show ID and they sold them to me anyway
 I didn't show ID and they didn't sell me any cigarettes

7. Have you ever gone to a store and bought just one or a few cigarettes (fewer than the usual pack of 20)?

- No, never
 Yes, in the past 12 months
 Yes, but not in the past 12 months

8. Have you ever tried to stop smoking and found that you could not?

- Yes No

9. How many times, if any, have you tried to stop smoking?

- None Twice 5 to 9 times
 Once 3 to 5 times 10 or more times

10. Do you want to stop smoking now?

- Yes No Don't smoke now

11. Do you (or did you) worry that quitting smoking would make you gain weight?

- No, not at all Yes, some
 Yes, a little Yes, a lot

12. Some people start to smoke because they think it will help them lose weight. Was losing weight one of the reasons you started to smoke?

- No, not at all Yes, some
 Yes, a little Yes, a lot

13. If you have never smoked, do you think you will try smoking cigarettes sometime this year?

- I have already tried cigarettes I probably will not
 I definitely will I definitely will not
 I probably will

14. Do you think you will be smoking cigarettes five years from now?

- I definitely will I probably will not
 I probably will I definitely will not

15. How much do you agree or disagree with the following statements?

- a. I will never get addicted to cigarettes ① ② ③ ④ ⑤
- b. I could smoke a pack a day for a year or more and still be able to quit if I wanted to. ① ② ③ ④ ⑤
- c. At my age, smoking is not too dangerous because you can always quit later. ① ② ③ ④ ⑤

16. Some tobacco companies make clothing, hats, bags, or other things with their brand on it. Do you have a piece of clothing, or other thing that has a tobacco brand name or logo on it?

- No Yes

16a. What brand name is on it (or on them)? (Mark all that apply.)

- Camel Newport
 Kool Virginia Slims
 Marlboro Other

17. Have you ever saved coupons from cigarettes (whether or not you bought them yourself)?

- No Yes → 17a. Are you currently saving coupons from cigarettes?

- No Yes

18. Has anyone from a tobacco company ever given you, or mailed you, a free sample of their cigarettes?

- No, never
 Yes, in the past 12 months
 Yes, but not in the past 12 months

19. Have you ever taken or used smokeless tobacco (snuff, plug, dipping tobacco, chewing tobacco)?

- ① Never—GO TO QUESTION 21
- ② Once or twice
- ③ Occasionally but not regularly
- ④ Regularly in the past
- ⑤ Regularly now

20. How frequently have you taken smokeless tobacco during the past 30 days?

- ① Not at all
- ② Once or twice
- ③ Once or twice per week
- ④ Three to five times per week
- ⑤ About once a day
- ⑥ More than once a day

21. Next we want to ask you about drinking alcoholic beverages, including beer, wine, wine coolers, and liquor.

Have you ever had any beer, wine, wine coolers, or liquor to drink—more than just a few sips?

- ① No—GO TO TOP OF NEXT COLUMN
- ② Yes

22. On how many occasions have you had alcoholic beverages to drink—more than just a few sips... (Mark one circle for each line.)

0 Occasions
1-2 Occasions
3-4 Occasions
5-6 Occasions
7-9 Occasions
10-12 Occasions
13-15 Occasions
16-18 Occasions
19-21 Occasions
22 or More

- a. ...in your lifetime? ① ② ③ ④ ⑤ ⑥ ⑦
- b. ...during the last 12 months? ... ① ② ③ ④ ⑤ ⑥ ⑦
- c. ...during the last 30 days? ① ② ③ ④ ⑤ ⑥ ⑦

* 23. On the occasions that you drink alcoholic beverages, how often do you drink enough to feel pretty high?

- ① On none of the occasions
- ② On few of the occasions
- ③ On about half of the occasions
- ④ On most of the occasions
- ⑤ On nearly all of the occasions

* 24. Think back over the LAST TWO WEEKS. How many times have you had five or more drinks in a row? (A "drink" is a glass of wine, a bottle of beer, a wine cooler, a shot glass of liquor, or a mixed drink.)

- ① None
- ② Once
- ③ Twice
- ④ Three to five times
- ⑤ Six to nine times
- ⑥ Ten or more times

We hope that you can answer all questions. But if you find one that you feel you cannot answer, please, we would prefer that you leave it blank.

Remember that your answers will be kept strictly confidential; they are never connected with your name or your class.

25. On how many occasions (if any) have you used marijuana (weed, pot) or hashish (hash, hash oil)... (Mark one circle for each line)

0 Occasions
1-2 Occasions
3-4 Occasions
5-6 Occasions
7-9 Occasions
10-12 Occasions
13-15 Occasions
16 or More

- a. ...in your lifetime? ① ② ③ ④ ⑤ ⑥ ⑦
- b. ...during the last 12 months? ... ① ② ③ ④ ⑤ ⑥ ⑦
- c. ...during the last 30 days? ① ② ③ ④ ⑤ ⑥ ⑦

26. On how many occasions (if any) have you used LSD ("acid")...

0 Occasions
1-2 Occasions
3-4 Occasions
5-6 Occasions
7-9 Occasions
10-12 Occasions
13-15 Occasions
16 or More

- a. ...in your lifetime? ① ② ③ ④ ⑤ ⑥ ⑦
- b. ...during the last 12 months? ... ① ② ③ ④ ⑤ ⑥ ⑦
- c. ...during the last 30 days? ① ② ③ ④ ⑤ ⑥ ⑦

27. On how many occasions (if any) have you used psychedelics other than LSD (like mescaline, peyote, psilocybin, PCP)...

0 Occasions
1-2 Occasions
3-4 Occasions
5-6 Occasions
7-9 Occasions
10-12 Occasions
13-15 Occasions
16 or More

- a. ...in your lifetime? ① ② ③ ④ ⑤ ⑥ ⑦
- b. ...during the last 12 months? ... ① ② ③ ④ ⑤ ⑥ ⑦
- c. ...during the last 30 days? ① ② ③ ④ ⑤ ⑥ ⑦

28. Amphetamines have been prescribed by doctors to help people lose weight or to give people more energy. They are sometimes called uppers, ups, speed, bennies, dexies, pep pills, and diet pills. Drugstores are not supposed to sell them without a prescription from a doctor. Amphetamines do NOT include any non-prescription drugs, such as over-the-counter diet pills (like Dexatrim®) or stay-awake pills (like No-Doz®), or any mail-order drugs. On how many occasions (if any) have you taken amphetamines on your own—that is, without a doctor telling you to take them...

0 Occasions
1-2 Occasions
3-4 Occasions
5-6 Occasions
7-9 Occasions
10-12 Occasions
13-15 Occasions
16 or More

- a. ...in your lifetime? ① ② ③ ④ ⑤ ⑥ ⑦
- b. ...during the last 12 months? ① ② ③ ④ ⑤ ⑥ ⑦
- c. ...during the last 30 days? ① ② ③ ④ ⑤ ⑥ ⑦

29. On how many occasions (if any) have you used "crack" (cocaine in chunk or rock form)...

- a. ...in your lifetime? 1 2 3 4 5 6 7
- b. ...during the last 12 months? 1 2 3 4 5 6 7
- c. ...during the last 30 days? 1 2 3 4 5 6 7

30. On how many occasions (if any) have you used cocaine in any other form...

- a. ...in your lifetime? 1 2 3 4 5 6 7
- b. ...during the last 12 months? 1 2 3 4 5 6 7
- c. ...during the last 30 days? 1 2 3 4 5 6 7

31. Barbiturates are sometimes prescribed by doctors to help people relax or get to sleep. They are sometimes called downs, downers, goofballs, yellows, reds, blues, rainbows. On how many occasions (if any) have you taken barbiturates on your own—that is, without a doctor telling you to take them...

- a. ...in your lifetime? 1 2 3 4 5 6 7
- b. ...during the last 12 months? 1 2 3 4 5 6 7
- c. ...during the last 30 days? 1 2 3 4 5 6 7

32. Tranquillizers are sometimes prescribed by doctors to calm people down, quiet their nerves, or relax their muscles. Librium, Valium, and Miltown are all tranquillizers. On how many occasions (if any) have you taken tranquillizers on your own—that is, without a doctor telling you to take them...

- a. ...in your lifetime? 1 2 3 4 5 6 7
- b. ...during the last 12 months? 1 2 3 4 5 6 7
- c. ...during the last 30 days? 1 2 3 4 5 6 7

33. On how many occasions (if any) have you taken heroin using a needle...

- a. ...in your lifetime? 1 2 3 4 5 6 7
- b. ...during the last 12 months? 1 2 3 4 5 6 7
- c. ...during the last 30 days? 1 2 3 4 5 6 7

34. On how many occasions (if any) have you taken heroin WITHOUT using a needle...

- a. ...in your lifetime? 1 2 3 4 5 6 7
- b. ...during the last 12 months? 1 2 3 4 5 6 7
- c. ...during the last 30 days? 1 2 3 4 5 6 7

35. There are a number of narcotics other than heroin, such as methadone, opium, morphine, codeine, demerol, paragoric, talwin, and laudanum. These are sometimes prescribed by doctors.

On how many occasions (if any) have you taken narcotics other than heroin on your own—that is, without a doctor telling you to take them...

- a. ...in your lifetime? 1 2 3 4 5 6 7
- b. ...during the last 12 months? 1 2 3 4 5 6 7
- c. ...during the last 30 days? 1 2 3 4 5 6 7

36. On how many occasions (if any) have you used methamphetamine (meth, speed, crank, crystal meth) by any method...

- a. ...in your lifetime? 1 2 3 4 5 6 7
- b. ...during the last 12 months? 1 2 3 4 5 6 7
- c. ...during the last 30 days? 1 2 3 4 5 6 7

In addition to the drugs we have already asked you about, have you ever used any other drug or drug for non-medical reasons? If so, please write the name(s) of this drug(s) on the inside front cover.

PART C

Provide information about yourself.

1. In what year were you born?

- 1 Before '78 2 1979 3 1981 4 1983
 5 1978 6 1980 7 1982 8 After 1983

2. In what month were you born?

- 1 January 2 April 3 July 4 October
 5 February 6 May 7 August 8 November
 9 March 10 June 11 September 12 December

3. What is your sex? 1 Male 2 Female

4. How do you describe yourself?

- Black or African American
 Mexican American or Chicano
 Cuban American
 Puerto Rican
 Other Latin American
 Asian American
 White (Caucasian)
 American Indian (Native American Indian)
 Other

5. Where did you grow up mostly?

- 1 On a farm
- 2 In the country, not on a farm
- 3 In a small city or town (under 50,000 people)
- 4 In a medium-sized city (50,000 - 100,000)
- 5 In a suburb of a medium-sized city
- 6 In a large city (100,000 - 500,000)
- 7 In a suburb of a large city
- 8 In a very large city (over 500,000)
- 9 In a suburb of a very large city
- 0 Can't say mixed

6. What is your present marital status?

- 1 Married
- 2 Separated/divorced
- 3 Engaged
- 4 Single

7. How many brothers and sisters do you have?

(Include stepbrothers and sisters and half-brothers and sisters.)

- a Older brothers and sisters ... 0 1 2 3 4 5 6
- b Younger brothers and sisters ... 0 1 2 3 4 5 6

7c. Which of the following people live in the same household with you? (Mark all that apply.)

- I live alone
- My husband/wife
- Father (or male guardian)
- My child(ren)
- Mother (or female guardian)
- Other relative(s)
- Brother(s) and/or sister(s)
- Non-relative(s)
- Grandparent(s)

The following information is required for you to be eligible for federal student aid. If you are not a U.S. citizen or permanent resident alien, you must be a national of the United States. If you are a naturalized citizen, you must have been a permanent resident in the United States for at least one year before you apply for aid.

8. What is the highest level of schooling your father completed?

- 0 Completed grade school or less
- 1 Some high school
- 2 Completed high school
- 3 Some college
- 4 Completed college
- 5 Graduate or professional school after college
- 6 Don't know, or does not apply

9. What is the highest level of schooling your mother completed?

- 0 Completed grade school or less
- 1 Some high school
- 2 Completed high school
- 3 Some college
- 4 Completed college
- 5 Graduate or professional school after college
- 6 Don't know, or does not apply

10. Did your mother have a paid job (half-time or more) during the time you were growing up?

- 1 No
- 2 Yes, some of the time when I was growing up
- 3 Yes, most of the time
- 4 Yes, all or nearly all of the time

11. How would you describe your political preference? (Mark only one circle.)

- 1 Strongly Republican
- 2 Mildly Republican
- 3 Mildly Democrat
- 4 Strongly Democrat
- 5 Independent
- 6 No preference
- 7 Other
- 8 Don't know, haven't decided

12. How would you describe your political beliefs? (Mark only one circle.)

- 1 Very conservative
- 2 Conservative
- 3 Moderate
- 4 Liberal
- 5 Very liberal
- 6 Radical
- 7 None of the above, or don't know

* 13. The next three questions are about religion.

a. What is your religious preference?

- 1 Baptist
- 2 Churches of Christ
- 3 Disciples of Christ
- 4 Episcopal
- 5 Lutheran
- 6 Methodist
- 7 Presbyterian
- 8 United Church of Christ
- 9 Other Protestant
- 10 Unitarian
- 11 Roman Catholic
- 12 Eastern Orthodox
- 13 Jewish
- 14 Latter Day Saints
- 15 Muslim/Moslem
- 16 Buddhist
- 17 Other religion
- 18 None

* b. How often do you attend religious services?

- 1 Never
- 2 Rarely
- 3 Once or twice a month
- 4 About once a week or more

* c. How important is religion in your life?

- 1 Not important
- 2 A little important
- 3 Pretty important
- 4 Very important

14. When are you most likely to graduate from high school?

- 1) By this June
- 2) July to January
- 3) After next January
- 4) Don't expect to graduate

15. Which of the following best describes your present high school program?

- 1) Academic or college prep
- 2) General
- 3) Vocational, technical, or commercial
- 4) Other, or don't know

16. Compared with others your age throughout the country, how do you rate yourself on school ability?

- 1) Far Below Average
- 2) Below Average
- 3) Slightly Below Average
- 4) Average
- 5) Slightly Above Average
- 6) Above Average
- 7) Far Above Average

17. How intelligent do you think you are compared with others your age?

- 1) 1
- 2) 2
- 3) 3
- 4) 4
- 5) 5
- 6) 6
- 7) 7

18. During the LAST FOUR WEEKS, how many whole days of school have you missed...

- None
- 1 Day
- 2 Days
- 3 Days
- 4 to 5 Days
- 6 to 10 Days
- 11 or More

- a. Because of illness
- b. Because you skipped or "cut"
- c. For other reasons

19. During the last four weeks, how often have you gone to school, but skipped a class when you weren't supposed to?

- 1) Not at all
- 2) 1 or 2 times
- 3) 3-5 times
- 4) 6-10 times
- 5) 11-20 times
- 6) More than 20 times

20. Which of the following best describes your average grade so far in high school?

- 1) A (93-100)
- 2) A- (90-92)
- 3) B+ (87-89)
- 4) B (83-86)
- 5) B- (80-82)
- 6) C+ (77-79)
- 7) C (73-76)
- 8) C- (70-72)
- 9) D (69 or below)

21. How likely is it that you will do each of the following things after high school? (Mark one circle for each line.)

- a. Attend a technical or vocational school
- b. Serve in the armed forces
- c. Graduate from a two-year college program
- d. Graduate from college (four-year program)
- e. Attend graduate or professional school after college

22. Suppose you could do just what you'd like and nothing stood in your way. How many of the following things would you WANT to do? (Mark ALL that apply.)

- a. Attend a technical or vocational school
- b. Serve in the armed forces
- c. Graduate from a two-year college program
- d. Graduate from college (four-year program)
- e. Attend graduate or professional school after college
- f. None of the above

23. On the average over the school year, how many hours per week do you work in a paid or unpaid job?

- 1) None
- 2) 5 or less hours
- 3) 6 to 10 hours
- 4) 11 to 15 hours
- 5) 16 to 20 hours
- 6) 21 to 25 hours
- 7) 26 to 30 hours
- 8) More than 30 hours

24. During an average week, how much money do you get from...

- a. A job or other work
- b. Other sources (allowances, etc.)

25. During a typical week, on how many evenings do you go out for fun and recreation?

- 1) Less than one
- 2) One
- 3) Two
- 4) Three
- 5) Four or five
- 6) Six or seven

26. On the average, how often do you go out with a date (or your spouse, if you are married)?

- (1) Never
- (2) Once a month or less
- (3) 2 or 3 times a month
- (4) Once a week
- (5) 2 or 3 times a week
- (6) Over 3 times a week

27. During an average week, how much do you usually drive a car, truck, or motorcycle?

- (1) Not at all
- (2) 1 to 10 miles
- (3) 11 to 50 miles
- (4) 51 to 100 miles
- (5) 100 to 200 miles
- (6) More than 200 miles

28. Within the LAST 12 MONTHS how many times, if any, have you received a ticket (OR been stopped and warned) for moving violations, such as speeding, running a stop light, or improper passing?

- (0) None—GO TO QUESTION 30
- (1) Once
- (2) Twice
- (3) Three times
- (4) Four or more times

29. How many of these tickets or warnings occurred after you were...

- a. Drinking alcoholic beverages? (0) (1) (2) (3) (4)
- b. Smoking marijuana or hashish? (0) (1) (2) (3) (4)
- c. Using other illegal drugs? (0) (1) (2) (3) (4)

30. We are interested in any accidents which occurred while you were driving a car, truck, or motorcycle. ("Accidents" means a collision involving property damage or personal injury—not bumps or scratches in parking lots.)

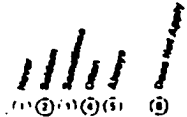
During the LAST 12 MONTHS, how many accidents have you had while you were driving (whether or not you were responsible)?

- (0) None—GO TO QUESTION 32
- (1) One
- (2) Two
- (3) Three
- (4) Four or more

31. How many of these accidents occurred after you were...

- a. Drinking alcoholic beverages? (0) (1) (2) (3) (4)
- b. Smoking marijuana or hashish? (0) (1) (2) (3) (4)
- c. Using other illegal drugs? (0) (1) (2) (3) (4)

32. When you drive a car, how often do you wear a seatbelt?



- (1) (2) (3) (4) (5) (6)

33. When you are riding in the front passenger seat of a car, how often do you wear a seatbelt?

- (1) (2) (3) (4) (5) (6)

PART D

1. The next questions are about anti-smoking commercials or "spots" that are intended to discourage cigarette smoking. In recent months, about how often have you seen such anti-smoking commercials on TV, or heard them on the radio?

- (1) Not at all
- (2) Less than once a month
- (3) 1-3 times per month
- (4) 1-3 times per week
- (5) Daily or almost daily
- (6) More than once a day

2. In recent months, about how often have you seen anti-smoking ads on billboards or in magazines and newspapers?

- (1) Not at all
- (2) Less than once a month
- (3) 1-3 times per month
- (4) 1-3 times per week
- (5) Daily or almost daily
- (6) More than once a day

3. To what extent do you think such ads on TV, radio, billboards or in magazines and newspapers have... (Mark one circle for each line.)

- a. ...made you less favorable toward smoking cigarettes? (1) (2) (3) (4) (5)
- b. ...made you less likely to smoke cigarettes? (1) (2) (3) (4) (5)
- c. ...overstated the dangers or risks of cigarette smoking? (1) (2) (3) (4) (5)



4. These days, how many people in the following groups would you guess are regular cigarette smokers?

- 0% to 10% 11% to 20% 21% to 30% 31% to 40% 41% to 50% 51% to 60% 61% to 70% 71% to 80% 81% to 90% 91% to 100% Never see them
- a. Professional athletes (1) (2) (3) (4) (5) (6)
- b. Rock music performers (1) (2) (3) (4) (5) (6)
- c. Actors and actresses (1) (2) (3) (4) (5) (6)
- d. Students in your school (1) (2) (3) (4) (5) (6)

5. How many people in the following groups would you guess use illicit drugs (like marijuana, cocaine, etc.) occasionally or regularly?

- 0% to 10% 11% to 20% 21% to 30% 31% to 40% 41% to 50% 51% to 60% 61% to 70% 71% to 80% 81% to 90% 91% to 100% Never see them
- a. Professional athletes (1) (2) (3) (4) (5) (6)
- b. Rock music performers (1) (2) (3) (4) (5) (6)
- c. Actors and actresses (1) (2) (3) (4) (5) (6)
- d. Students in your school (1) (2) (3) (4) (5) (6)

6. Think about the movie that you watched most recently in a theater. Did any of the characters in the movie smoke cigarettes?

- 1 No
 2 Yes, some
 3 Yes, a lot
 4 Don't remember

7. Think about the movie that you watched most recently on video or on TV. Did any of the characters in the movie smoke cigarettes?

- 1 No
 2 Yes, some
 3 Yes, a lot
 4 Don't remember

8. The next questions ask about anti-drug commercials or "spots" that are intended to discourage drug use. In recent months, about how often have you seen such anti-drug commercials on TV, or heard them on the radio?

- 1 Not at all
 2 Less than once a month
 3 1-3 times per month
 4 1-3 times per week
 5 Daily or almost daily
 6 More than once a day

9. To what extent do you think such commercials have...

- 1 2 3 4 5
- a. ...made people your age less favorable toward drugs? (1) (2) (3) (4) (5)
- b. ...made you less favorable toward drugs? (1) (2) (3) (4) (5)
- c. ...made you less likely to use drugs? (1) (2) (3) (4) (5)
- d. ...overstated the dangers or risks of drug use? (1) (2) (3) (4) (5)

10. How much do you agree or disagree with each of the following statements? (Mark one circle for each line.)

- 1 2 3 4 5
- a. I take a positive attitude toward myself (1) (2) (3) (4) (5)
- b. Life often seems meaningless (1) (2) (3) (4) (5)
- c. People should do their own thing, even if other people think it's strange (1) (2) (3) (4) (5)
- d. I feel I do not have much to be proud of (1) (2) (3) (4) (5)
- e. I feel I am a person of worth, on an equal plane with others (1) (2) (3) (4) (5)
- f. I enjoy life as much as anyone (1) (2) (3) (4) (5)
- g. I get a real kick out of doing things that are a little dangerous (1) (2) (3) (4) (5)
- h. Sometimes I think that I am no good at all (1) (2) (3) (4) (5)
- i. I am able to do things as well as most other people (1) (2) (3) (4) (5)
- j. The future often seems hopeless (1) (2) (3) (4) (5)
- k. I like to test myself every now and then by doing something a little risky (1) (2) (3) (4) (5)
- l. I feel that I can't do anything right (1) (2) (3) (4) (5)
- m. On the whole, I'm satisfied with myself (1) (2) (3) (4) (5)
- n. I feel that my life is not very useful (1) (2) (3) (4) (5)
- o. It feels good to be alive (1) (2) (3) (4) (5)

The information you provide will be used in this study and will be kept confidential. The rest of this questionnaire is about your experiences and attitudes relating to alcohol and other drugs.

11. On how many occasions (if any) have you been drunk or very high from drinking alcoholic beverages?

- 0 Occasions
- 1-2 Occasions
- 3-5 Occasions
- 6-9 Occasions
- 10-15 Occasions
- 16-20 Occasions
- 21 or more

- a. ...in your lifetime?
- b. ...during the last 12 months?
- c. ...during the last 30 days?

12. Steroids, or anabolic steroids, are sometimes prescribed by doctors to promote healing from certain types of injuries. Some athletes, and others, have used them to try to increase muscle development. On how many occasions (if any) have you taken steroids on your own—that is, without a doctor telling you to take them...

- 0 Occasions
- 1-2 Occasions
- 3-5 Occasions
- 6-9 Occasions
- 10-15 Occasions
- 16-20 Occasions
- 21 or more

- a. ...in your lifetime?
- b. ...during the last 12 months? ... (1) (2) (3) (4) (5) (6)
- c. ...during the last 30 days? ... (1) (2) (3) (4) (5) (6)

13. What methods have you used for taking steroids on your own? (Mark ALL that apply.)

- Injection
- By mouth
- Haven't used steroids

14. On how many occasions (if any) have you taken any drugs by injection with a needle (like heroin, cocaine, amphetamines, or steroids)...

Do NOT include anything you took under a doctor's orders.

- 0 Occasions
- 1-2 Occasions
- 3-5 Occasions
- 6-9 Occasions
- 10-15 Occasions
- 16-20 Occasions
- 21 or more

- a. ...in your lifetime? ... (1) (2) (3) (4) (5) (6)
- b. ...during the last 12 months? ... (1) (2) (3) (4) (5) (6)
- c. ...during the last 30 days? ... (1) (2) (3) (4) (5) (6)

15. When (if ever) did you FIRST inject any drug with a needle (without a doctor's orders)?

- (1) Never
- (2) Grade 6 or below
- (3) Grade 7
- (4) Grade 8
- (5) Grade 9
- (6) Grade 10
- (7) Grade 11
- (8) Grade 12

16. When (if ever) did you FIRST do each of the following things? Don't count anything you took because a doctor told you to. (Mark one circle for each line.)

- Never
- Grade 6 or below
- Grade 7
- Grade 8
- Grade 9 (Freshman)
- Grade 10 (Sophomore)
- Grade 11 (Junior)
- Grade 12 (Senior)

- a. Smoke your first cigarette
- b. Smoke cigarettes on a daily basis
- c. Try smokeless tobacco (snuff, plug or chewing tobacco)

17. In the future, do you think that you will...

- Definitely not
- Probably not
- Don't know
- Probably yes
- Definitely yes

- a. Smoke cigarettes?
- b. Drink alcoholic beverages?
- c. Try or use marijuana?
- d. Try or use "crack" cocaine?
- e. Try or use cocaine in powder form? ... (1) (2) (3) (4) (5)
- f. Try or use any other illegal drugs? ... (1) (2) (3) (4) (5)

18. How do you think your CLOSE FRIENDS feel (or would feel) about YOU doing each of the following things? (Mark one circle for each line.)

- Definitely Disapprove
- Probably Disapprove
- Don't know
- Probably Approve
- Definitely Approve

- a. Smoking cigarettes occasionally ... (1) (2) (3)
- b. Smoking cigarettes every day ... (1) (2) (3)
- c. Smoking one or more packs of cigarettes per day ... (1) (2) (3)
- d. Using smokeless tobacco occasionally ... (1) (2) (3)
- e. Using smokeless tobacco every day ... (1) (2) (3)
- f. Using smokeless tobacco several times per day ... (1) (2) (3)
- g. Trying marijuana once or twice ... (1) (2) (3)
- h. Smoking marijuana occasionally ... (1) (2) (3)
- i. Smoking marijuana regularly ... (1) (2) (3)

- How do you think your CLOSE FRIENDS feel (or would feel) about YOU doing each of the following things? (Mark one circle for each line.)
- | | |
|--|---|
| | Don't Disapprove
Disapprove
Strongly Disapprove |
| j. Trying "crack" cocaine once or twice | ① ② ③ |
| k. Taking "crack" cocaine occasionally | ① ② ③ |
| l. Trying cocaine powder once or twice | ① ② ③ |
| m. Taking cocaine powder occasionally | ① ② ③ |
| n. Taking one or two drinks nearly every day | ① ② ③ |
| o. Taking four or five drinks nearly every day | ① ② ③ |
| p. Having five or more drinks once or twice each weekend | ① ② ③ |
| q. Driving a car after having 1-2 drinks | ① ② ③ |
| r. Driving a car after having 5 or more drinks | ① ② ③ |

19. How many of your friends would you estimate...
- | | |
|--|-----------|
| | 1 2 3 4 5 |
| a. Smoke cigarettes? | ① ② ③ ④ ⑤ |
| b. Smoke marijuana or hashish? | ① ② ③ ④ ⑤ |
| c. Take "crack" cocaine? | ① ② ③ ④ ⑤ |
| d. Take cocaine in powder form? | ① ② ③ ④ ⑤ |
| e. Use inhalants (sniff glue, aerosols, laughing gas, etc.)? | ① ② ③ ④ ⑤ |
| f. Take MDMA (ecstasy)? | ① ② ③ ④ ⑤ |
| g. Take crystal meth ("ice")? | ① ② ③ ④ ⑤ |
| h. Take steroids? | ① ② ③ ④ ⑤ |

20. How likely is it that you will use cocaine in powder form in the next 12 months?
- Definitely will — GO TO END
 - Probably will — GO TO END
 - Probably will not
 - Definitely will not

21. Here are some reasons people give for not using cocaine in powder form, or for stopping use. How important is each of the following as a reason for YOU not using powdered cocaine?
- | | |
|---|--|
| | Not At All
Somewhat
Very Important |
| a. Concerned about possible psychological damage | ① ② ③ |
| b. Concerned about possible physical damage | ① ② ③ |
| c. Concerned about getting arrested | ① ② ③ |
| d. Concerned about becoming addicted | ① ② ③ |
| e. It's against my beliefs | ① ② ③ |
| f. Concerned about loss of energy or ambition | ① ② ③ |
| g. Concerned about possible loss of control of myself | ① ② ③ |
| h. It might lead to stronger drugs | ① ② ③ |
| i. Not enjoyable, I wouldn't like it | ① ② ③ |
| j. My parents would disapprove | ① ② ③ |
| k. My boyfriend/girlfriend (or spouse) would disapprove | ① ② ③ |
| l. I wouldn't like being with the people who use it | ① ② ③ |
| m. My friends don't use it | ① ② ③ |
| n. Too expensive | ① ② ③ |
| o. Not available | ① ② ③ |
| p. Don't feel like getting high | ① ② ③ |
| q. Because the dealers are dangerous people | ① ② ③ |
| r. Because using it helps support criminal networks | ① ② ③ |



Thank you for taking the time to answer these questions. We hope you found them interesting. We are eager to tabulate your answers along with those of other high school seniors throughout the nation.

APPENDIX A(2): Cover of the Questionnaire



This questionnaire is part of a nationwide study of high school seniors, conducted each year by the University of Michigan's Institute for Social Research. The questions ask your opinions about a number of things—the way things are now and the way you think they ought to be in the future. In a sense, many of your answers on this questionnaire will count as "votes" on a wide range of important issues.

If this study is to be helpful, it is important that you answer each question as thoughtfully and frankly as possible. All your answers will be kept strictly confidential, and will never be seen by anyone who knows you.

This study is completely voluntary. If there is any question that you or your parents would find objectionable for any reason, just leave it blank.

In a few months, we would like to mail each of you a summary of the nationwide results from this study. Also, in about a year we would like to mail another questionnaire to some of you, asking about how your plans have worked out and what's happening in your lives.

In order to include you in these mailings, we ask for your name and address on a special form at the end of this questionnaire. This form is to be torn out and handed in separately. Once the address form and the questionnaire have been separated, there is no way they can be matched again, except by using a special computer tape at the University of Michigan. The only purpose for that tape is to match a follow-up questionnaire with this one.

Other seniors have said that these questionnaires are very interesting and that they enjoy filling them out. We hope you will too. Be sure to read the instructions on the other side of this cover page before you begin to answer. Thank you very much for being an important part of this project.

1986

INSTITUTE FOR SOCIAL RESEARCH
THE UNIVERSITY OF MICHIGAN
ANN ARBOR, MICHIGAN

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APPENDIX B: Letter of Invitation to Schools



The University of Michigan

MONITORING THE FUTURE PROGRAM • SURVEY RESEARCH CENTER
INSTITUTE FOR SOCIAL RESEARCH • ANN ARBOR, MI 48106-1248
TELEPHONE: 313/763-5043

800/766-2864

September 4, 1996

FAX: 313/936-0043

Mr. John Jones, Principal
Main Senior High School
600 North 10th Street
Somerset, AZ 72315

Dear Mr. Jones:

I am writing to invite your school to participate in one of the nation's most important studies of American young people, *Monitoring the Future*, now in its twenty-third year. Results from our study are used for many worthwhile purposes, including measurement of progress towards Goal 7 of the National Education Goals: "Safe, disciplined, and drug-free schools." Study findings are widely disseminated through the national media and are used extensively by policy makers at the federal, state, local, and district levels.

Your part in this nation-wide endeavor would be to allow your 12th graders to take a 45-minute self-administered questionnaire, preferably during a regular class period. Monitoring the Future's procedures minimize the impact on the normal functioning of the school. Our trained field personnel will conduct the administrations one day in the spring of 1997 and again in the spring of 1998.

Students are asked about their experiences and views on a wide range of subjects of importance to the nation, including their educational and occupational plans and experiences, life goals, use of leisure time, health and safety, alcohol and drug use, and attitudes toward major institutions. There are no questions dealing with sexual behavior, abortion, or sensitive parental behaviors. Student responses are kept in complete confidence and are reported in a statistical fashion which does not identify individual students or schools.

After the data have been collected and tabulated, you will receive the only copy of an individualized school report comparing your students' responses with national data. In addition, you will receive complimentary copies of our national report for three years following your participation.

In a few days I, or my associate, Margaret Libsch, will call you to discuss the study further and answer any questions you may have. We very much hope that you will help us to continue this important and exciting venture. In the meantime, thank you very much for your consideration.

Sincerely yours,

Lloyd D. Johnston, Ph.D.
Program Director

LDJ:pb

Enclosures

APPENDIX B(2): Fact Sheet for Principals

MONITORING THE FUTURE Fact Sheet For Principals

What is Monitoring the Future?	Monitoring the Future is a long-term, annual study of American students conducted by the University of Michigan's Survey Research Center (SRC). The SRC is part of the world's largest university-based social science research organization. Monitoring the Future is funded by the National Institutes of Health.
Importance of Your Participation	In order to obtain an accurate cross-section of all 12th graders in the United States, and to minimize the burden on schools, we use a carefully controlled sampling procedure to select only about 150 schools each year. Your school is one of the few selected by this scientific process. Therefore, your participation is very important to the representativeness of the national sample. Although the study is ongoing, no school participates more than two years in a row. We invite your school's participation in the national 12th grade sample in the spring of 1997 and the spring of 1998.
Confidentiality	Both the school's participation and student responses are kept in complete confidence. Study findings are reported only in a statistical fashion which will not identify individual students or schools. A Grant of Confidentiality from the U.S. Department of Justice fully ensures our ability to keep the data confidential. Student participation is completely voluntary.
Involvement of School Staff	Although we ask teachers to stay in their classrooms and to take attendance, they are free to do other things during the administration of the survey. We do not request access to student records. Monitoring the Future pays all costs associated with the study.
Timeline for Participation	Next January or February a member of our Ann Arbor staff will call the principal, or a designated contact person, to schedule the survey on a mutually agreeable date between February 15 and May 1. About ten days prior to the date selected, our field representative visits each school for about half an hour to provide participating classroom teachers with student flyers describing the study, and to meet the principal and/or liaison person. On the scheduled administration date, the same field representative returns, with assistants as needed, to carry out the survey during normal class periods.
Reports to Principals	We will send you an individualized <i>School Report</i> . Because this report is based on the combined responses of students in your school, we will send you the only copy by certified mail. An example of the information given in this report is enclosed.
Dissemination of Results	Findings from the study have appeared repeatedly in virtually every major newspaper in the country; the national news programming of all television networks; magazines such as <i>Newsweek</i> , <i>Time</i> , <i>Reader's Digest</i> , and the <i>NASSP Journal</i> ; and in many prestigious social science and health journals. The study contributes major measurements for assessing progress towards several national goals, including Goal 7 of the National Educational Goals, a number of National Health Objectives for the Year 2000, and some goals in the National Drug Control Strategy issued annually by the White House.



How Are the Results Used?

We believe that a study like this is successful only if it makes a difference in the way things get done. Each year, we provide the results to those who are in a position to change things. There is also an annual report to the nation as a whole which is covered by television, radio, and the press; and there are special reports to many interested groups.

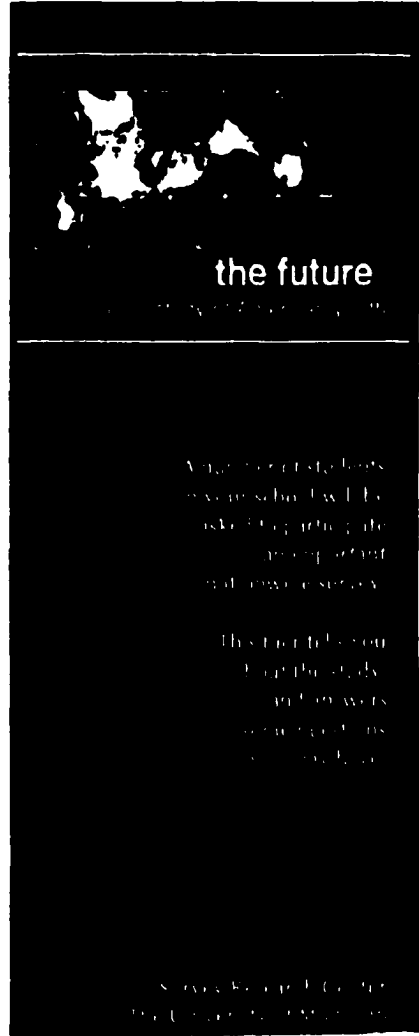
Educators want to know what students say about school and their feelings about further education. National leaders will be hearing students' thoughts on government and how it's run. Community and business leaders will also be listening to what students have to say about their hopes for the future.

Will Anyone I Know See My Answers?

No. Your individual answers are never seen by anyone in your school, or anyone else who knows you. We even have a special Grant of Confidentiality from the U.S. Government which protects all information gathered in the study.

Who Is Doing This Study?

The University of Michigan's Survey Research Center is one of the world's largest and most respected social research organizations. It has been conducting nationwide surveys for nearly 50 years.



APPENDIX C: Student Flyer

APPENDIX D: Implicit Parental Consent Form

Dear Parent/Guardian:

Main Senior High School has been selected by the University of Michigan to participate in a survey of 10th graders, entitled Monitoring the Future: A Continuing Study of American Youth. This survey is part of an annual, nationwide study of American young people which has been going on for over twenty years.


The 10th graders at Main Senior High School will be asked to complete a 45-minute questionnaire. The questions ask about school experiences, attitudes toward school and education, plans for the future, use of and attitudes about using alcohol and drugs, work experiences and preferences, health and leisure activities. There are no questions about sexual behavior or abortion. Since you have a son/daughter who is a 10th grader, I am asking your permission in advance to have him/her participate in the survey.

I can assure you that neither the school nor individual students will be identified in any report from the study. Results will be confidential, and the Main Senior High School staff will not be involved in the data collection. Reports on the national results will be provided to the school for each of the next three years.

We believe this study is a worthwhile undertaking and merits your consideration. If for any reason you do not wish your son/daughter to participate in this study, please ask your son/daughter to return the attached slip to _____ within two days.

Thank you in advance for your consideration.

Sincerely,

 _____ Mr. John Jones, Principal
IF YOU DO **NOT** WISH YOUR SON OR DAUGHTER TO PARTICIPATE IN THIS STUDY, PLEASE ASK HIM/HER TO RETURN THIS SLIP TO _____ WITHIN TWO DAYS.

Student's Name _____

I prefer that my son/daughter not participate in this study.



(Date)

Parent or Guardian signature











Appendix E

CVSU Student E-mail MORTONDI

Page 1 of 2

 Folders Compose Address book Preferences Logout
 Rules

RE: Permission to do secondary analysis

From: John Wallace <johnwall@isr.umich.edu>

Sent: Wed, 24 Oct 2001 10:24:20 -0400

Subject: RE: Permission to do secondary analysis
Dana,

You have my permission to do your proposed work. I should inform you however, that I too am using the variables that you named with the Monitoring the Future data. In fact, I am updating the analyses presented in the 1998 Health Behavior and education paper using 1999-2000 data.

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