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Rural Adolescent Perceptions of the Availability and Accessibility of Substance Abuse Treatment

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RURAL ADOLESCENT PERCEPTIONS OF THE AVAILABILITY AND ACCESSIBILITY OF SUBSTANCE ABUSE TREATMENT

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The prevalence of substance abuse among rural adolescents has equaled or surpassed rates in urban youth, but rural substance abusers go untreated at rates twice that of urban populations. Cultural norms adverse to help-seeking, and low availability and accessibility of substance treatment in rural areas may effect treatment utilization. The primary purpose of this study was to assess rural adolescents' substance problem recognition and perceptions of substance abuse treatment availability and accessibility.

Participants were selected from 9th and 12th grades at Purchase Line Junior/Senior High School, in a rural county of Pennsylvania. Students were asked to complete a survey assessing their substance problem recognition, perceptions of treatment availability and accessibility, and help-seeking behavior.

Results supported the hypothesis that rural adolescents would condone relatively high levels of substance use before perceiving a need for professional help, with drug use more readily tolerated than alcohol use. However, rural adolescents had difficulty differentiating levels of substance use in vignettes. Instead, type of substance, followed closely by amount of substance used and amount of trouble that substance use caused in the life of the user, were the primary influences in determining the seriousness of a substance use problem. In accordance with hypotheses, rural adolescents also strongly

perceived obstacles to obtaining treatment, especially maintaining privacy. Support for the hypothesis that rural adolescents would choose non-professional over professional sources of help, was mixed. However, a trend toward avoiding resources associated with school was observed. Furthermore, results indicated that 12th grade participants were significantly more aware of substance treatment resources. However, overall familiarity with treatment resources was relatively low, especially for more serious medical resources, and resources not directly introduced to them in school.

Recommendations include increasing the variety of treatment resources introduced to rural adolescents in school, and emphasizing components related to rights to confidentiality. It is also recommended that future research be done to explore the approximately 25% of rural adolescents who report being least likely to seek professional treatment. Research should also be done with larger samples to better examine the effect of Short Understanding of Substance abuse Survey category on treatment-seeking and utilization.

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CHAPTER I

INTRODUCTION

Current drug and alcohol education provided to rural adolescents emphasizes abstinence, but it may leave rural youth lacking information about what routes to take when a drug or alcohol problem already exists. Coupled with perceptions of low availability and accessibility of treatment and cultural norms adverse to help-seeking, rural adolescents may be at a distinct disadvantage when it comes to utilizing treatment options.

The incidence of illegal drug and alcohol use by adolescents in rural areas matches or surpasses that of adolescents in major urban centers (Sloboda, 2002). Despite this fact, little research has been done on the perceptions rural adolescents hold about drug and alcohol treatment. Perceptions of factors such as accessibility, availability, adolescent legal rights, and the appropriateness of substance use and help-seeking may be significantly related to treatment utilization (National Center for Nursing Research, 1999). These perceptions may be especially important to rural populations who face actual deficits in the availability and accessibility of health care resources.

As stated in Schoeneberger, Leukefeld, Hiller, and Godlaski (2006), the reasons for negative relationships between living in a rural area and receiving treatment for drug abuse are still relatively undefined and warrant additional research on the availability of treatment programs in these areas, their accessibility, and rural residents' problem recognition. The purpose of this study is to examine rural adolescent perceptions of drug and alcohol treatment (problem recognition, availability, and accessibility) in the hopes

of making recommendations that will increase service awareness and treatment utilization in rural youth.

Adolescent Substance Use

Most of the information we possess regarding trends in substance abuse relies upon studies of subjects' self-reports on surveys. Self-report techniques are prone to problems such as inadequate sampling and dishonest reporting. Therefore, only a select few, widely publicized studies have been judged as superior to others based on their sample size, sampling techniques, longevity, reliability and validity (Roehrich, Meil, Simansky, Davis, & Dunne, 2006).

The Monitoring the Future Study (MTF) is an ongoing study of the behaviors, attitudes, and values of American secondary school students, college students, and young adults through age 45. This study is conducted by researchers from the University of Michigan's Institute for Social Research and is one of the most cited studies of substance use trends. MTF surveys the frequency of substance use (lifetime, past 12 months, past 30 days, and daily use), participant demographics, and attitudes towards abused substances. The results are reported in yearly summaries. While these results are not specific to rural Pennsylvania they represent some of the best data on trends in substance abuse across population density among adolescents (Roehrich et al., 2006).

In 2004 the Monitoring the Future Study reported that 51% of American adolescents have used an illicit drug at least once before graduating from high school. The study's authors call this "extraordinarily high levels [of substance use] either by historical comparisons in this country or by international comparisons" (Johnston, O'Malley, Bachman, & Schulenberg, 2004, p. 8). The study also reports that while

adolescent usage trends for individual drugs fluctuate widely, overall substance use among adolescents has remained relatively stable. MTF further shows how the majority of adolescents perceive most illegal substances to be “fairly easily” or “very easily” available to them.

Despite the general misconception that rural areas are relatively free of substance related problems, rural adolescent substance use has recently equaled or surpassed use among urban adolescents. According to Schoeneberger et al. (2006, p. 87) “ Rural areas were more sheltered from the problems of mainstream America, but now, mass communication has decreased the isolation of rural areas.” This increased interaction between rural and urban culture has allowed rural residents to become exposed to substance problems that were once found only in major urban centers. “Since the farm crisis of the 1980’s, many rural areas have been confronted with similar problems as inner-city areas” (p. 87). Population mobility, as well as the increased availability of popular media, has reduced the cultural differences that formerly kept rural adolescents separated from the problems associated with drugs and alcohol that were first found in urban youth (Sloboda, 2002).

The Monitoring the Future Study reports that a faster decline in urban substance use has left overall rural usage rates higher than urban ones (Johnston, O'Malley, Bachman, & Schulenberg, 2005). In fact, rural 8th, 10th, and 12th graders have been found in recent years to surpass urban youth in their usage of alcohol, tobacco products, cocaine, and amphetamines (Sloboda, 2002). Strong, Del Grosso, Burwick, Jethwani & Ponza (2005) agree that alcohol use and the use of some drugs, particularly among younger teens, is higher in rural than in urban populations. Sloboda (2002) observes that

variables such as ethnicity and sex, that represent significant differences in drug and alcohol use in urban adolescents, are less powerful indicators among rural populations. Instead, rural youth are using substances at a more comparable rate across demographic factors, attesting to the pervasiveness of the problem.

It is important for those involved with rural youth to realize that substance use poses a specific danger to that population. Monitoring the Future described characteristics including not being college-bound, being White, and living in the Northeast United States as particular predictors of substance usage for adolescents (Johnston et al., 2004). These characteristics can be found among much of rural Pennsylvania's youth, including those who served as participants in this study. Particular risk factors for rural youth also include a family history of drug and alcohol use, early initiation of problem behavior, and low school achievement (Sloboda, 2002).

The Purchase Line School District, from which the sample of participants for this study was derived, is located in Western Pennsylvania's Indiana County, in the Northeastern part of the United States. According to the U.S. Department of Agriculture (PA Fact Sheet, 2006) 47% of rural Pennsylvania residents do not go on to college (46.4% in Indiana County) and another 19% do not complete college (17.7% in Indiana County). Among the student population of the Purchase Line school district, approximately 98.5% are of European American descent. These statistics provide evidence that many of the students sampled were likely to have a combination of several of the risk factors for adolescent substance abuse described above.

Defining "Rural"

When conducting research on areas of low population density, one problem that exists is the unstructured and misused term "rural". The ambiguity of the term "rural" creates problems for researchers who aim to conduct studies on such populations. Definitions of rural areas include those based on location and/or overall population, such as the U.S. Census Bureau definition. Other important definitions are those used by large-scale studies such as Monitoring the Future. However, Monitoring the Future uses the term "non-metropolitan," rather that "rural," to describe areas of low population density. In this dissertation, only the term "rural" is used to cover all of the various definitions used in the prior research that inspired this study. Described below are the U.S. Census Bureau's Definition of "rural," the Monitoring the Future study's definition of "non-metropolitan" and the Center for Rural Pennsylvania's definition of "rural" that were noted most frequently in this review.

The U.S. Census Bureau defines rural areas as any area that does not meet the criteria to be an urban area. "An urban area generally consists of a large central place and adjacent densely settled census blocks that together have a total population of at least 2,500 for urban clusters, or at least 50,000 for urbanized areas. Urban classification cuts across other hierarchies and can be in metropolitan or non-metropolitan areas" (U. S. Census Bureau, 2000). States have also been classified as rural by the U.S. Census Bureau. However, states are classified according to population density rather than overall population. A rural state is defined as one that does not meet "the criterion of 50 persons per square mile." As cited in Roehrich et al. (2006), population density is defined by the Monitoring the Future survey based upon the area in which participating schools are

located. There are three mutually exclusive population density strata into which schools have been divided. The current categories, which have been used since 1994, are as follows: 1) Large metropolitan areas include the eight largest cities represented in all grade levels and the next 16 largest cities represented half by 8th and 12th graders and half by 10th. 2) Other metropolitan areas include all other metropolitan areas, except those categorized among the 24 cities defined in the large metropolitan category. 3) Non-metropolitan areas include all areas not designated above. In other words, they do not contain a town with a population of at least 50,000. The Center for Rural Pennsylvania's (2006, Rural/Urban PA section, ¶ 4) definition of rural is described as "population density within the municipality is less than 274 persons per square mile or the municipality's total population is less than 2,500 unless more than 50 percent of the population lives in an urbanized area, as defined by the U.S. Census Bureau."

Due to the differing definitions of "rural," it is possible to live in an area with a combination of conflicting rural/urban definitions by state, county, and place. Residents of Pennsylvania have this problem, because Pennsylvania is not officially designated as a rural state but has 48 of its 67 counties classified as rural, or 28% of the total population (Center for Rural Pennsylvania, 2006). However, the more conservative definitions of "rural" based on place, rather than state or county, classify only 10% of Pennsylvania's residents as rural.

Adolescent Help-Seeking

Ross-Lindsey & Kalafat (1998) state that research is needed to evaluate and identify characteristics and strategies that are associated with the provision of effective

services to those youth most in need of treatment. Among the various elements that may be important to explore, they suggest, are adolescents' attitudes toward help-seeking.

One common belief among lay-people is that adolescents seldom seek treatment for drug and alcohol problems on their own. However, this perception may be derived from the fact that many people view help-seeking as a single planned choice, rather than studying the process of multiple decisions and interactions that actually comprise help-seeking behavior (Ross-Lindsey & Kalafat, 1998). Research on rural Canadian 12-17 year-olds found that of the 47% of the sample that reported having a serious problem (including substance abuse), 15% of these perceived a need for professional help, but only 7% had sought professional help (Sears, 2004). Thus, help-seeking was broken into steps: reporting serious problems, recognizing the need for professional help, and actually obtaining professional help.

Sears (2004) found that problem reporters tended to be females who lived with someone other than a parent, and who were less likely to choose family or friends as support for their problem. These youths were also more likely to be involved with substance abuse than were non-reporters. Those who perceived a need for professional help reported higher levels of anxiety and depression, lower self-esteem, and more frequent substance abuse, school misconduct and antisocial behavior problems. Finally, those who actually obtained professional help were more likely to be in senior high school, and of these, the females were more likely to report substance abuse problems. Sears' study provides evidence that adolescents with substance abuse problems often do recognize their problem as serious, but do not as often perceive the need for professional help, and seldom obtain it. Why so many youths are lost between problem recognition

and more advanced professional help-seeking and utilization is one question this study seeks to shed light on.

When it comes to the resources they prefer to utilize for help, poor choice may be one reason that adolescents who report having a serious problem, such as substance abuse, never actually receive professional help. In a study that asked 12-18 year-olds who they would turn to for help if they had a substance abuse problem, adolescents reported that they were least likely to go to parents. Other adult helpers were also ranked low on the preference scale (Windle, Miller-Tutzaur, Barnes & Welte, 1991). When Ross-Lindsey & Kalafat (1998) conducted survey research of predominantly White high school students who had not received personal counseling in the last six months, they discovered that adolescents perceived that seeking adult help would be embarrassing, impersonal, and would not be confidential. They also perceived adult helpers to be unhelpful, judgmental, patronizing, too busy to help them, and out of touch with the experiences of teenagers.

Perhaps due to perceptions like these, twenty percent of adolescents in Windle et al.'s (1991) study reported that they would seek no adult help at all, preferring to ask a friend or go without help entirely. High proportions of those who chose not to utilize any social resources were comprised of males and minority students. A pattern also suggested that younger adolescents were more likely than older ones to elect not to utilize adult help or preferred to obtain no help at all. Yet, these younger, male, and minority adolescents are the groups that would most benefit from early intervention. The danger is that this group of non-utilizers was also the group with the highest incidence of substance consumption and substance related problems.

Melnick, DeLeon, Hawke, Jainchill & Kressel (1997) agreed that increasing age correlated with higher scores on a measure of overall willingness for treatment. The authors used the Circumstances, Motivation, Readiness, and Suitability (CMRS) scales (Adolescent Form) to explore the perceptions of a culturally diverse sample of adolescents (18 years or younger) who had been recently admitted to therapeutic community treatment for substance abuse problems. The CMRS scales assessed the adolescents' perceptions of their circumstances, motivation, readiness, and suitability for therapeutic community treatment. On this measure, circumstances were defined as legal and family pressures toward treatment. Motivation was equivalent to desire to change, whereas readiness referred to the adolescent's perception that treatment was necessary for change to occur. Finally, suitability meant the extent that the adolescent perceived the residential therapeutic community to be the appropriate treatment choice for him/her. With the exception of the circumstances scale, each of the subscale mean scores significantly increased with the age of the participant, indicating that increased willingness for treatment was correlated with increased participant age. Age was found to be the most consistent contributor to overall willingness for treatment. The authors suggested that this correlation may be related to increased emotional maturity, greater history of experience and greater knowledge of treatment options. Also of note is that higher CMRS scores were significantly correlated with longer treatment utilization.

Despite the low number of adolescents who obtain professional substance abuse treatment for themselves, the actual number of U. S. adolescents who receive treatment for drug and alcohol related disorders has increased greatly in recent years. According to www.recoverymonth.gov, a website maintained by the U.S. Department of Health and

Human Services, Center for Substance Abuse Treatment (2006), admissions to treatment programs among adolescents aged 12-17 increased 65% between the years 1992 and 2002. This is a significant percentage when compared to the overall number of people in the entire U.S. population who were admitted to treatment programs, which only increased 23% during the same years. This indicates that adolescents are over-represented among new recipients of substance abuse treatment. Despite this jump in recognition and treatment of adolescent substance abuse problems, little research has been done on the perceptions adolescents hold about such treatments. These perceptions may be one area where research can discover the reasons that adolescents who recognize their own problems do not seek out and utilize treatment options more often.

Finally, research suggests that, in general, rural populations utilize all health services significantly less than urban populations, putting rural adolescents at a double disadvantage (Strong et al. 2005). The perceptions rural adolescents hold about substance abuse treatment may significantly contribute to their lack of treatment-seeking behavior, and treatment utilization. In fact, the National Center for Nursing Research (NCNR, 1999) reports subjective perceptions of service availability were equal, or better, predictors of rural service utilization as objective measures of service availability. For example, NCNR states that although treatment services may actually exist in neighboring communities, rural residents may not consider these services accessible because they perceive that nothing is available in their own town. The authors also suggest that rural residents may experience available services in their communities being closed due to factors such as lack of funding or out-migration of appropriate professionals, and may then perceive services that still exist as fleeting and not worth becoming committed to.

Thus, despite objective availability of service providers, rural residents may not utilize these services due to subjective perceptions of services as unavailable.

Perceptions that may Decrease Help-Seeking and Utilization

Availability. Strong et al. (2005) reported that although 25% of the nation's population lives in rural areas only 14% of primary care physicians practice in rural areas. This is a significant discrepancy when one looks at the fact that most substance abuse treatment in rural areas is provided by family physicians and hospitals. More specifically, only 11% of rural substance abuse treatment providers offer youth-oriented treatment. This is also significant because it has been discovered that traditional adult programming is not as effective for substance abusing adolescents as is distinct treatment that includes family programming, psychiatric services, recreational activities, coordination of care and other health care services, and flexibility of available options (U.S. Department of Health and Human Services, 2006). Furthermore, the IMPACT study, based in Tennessee, found that only 1,227 of 24,000 youth across the state in need of substance abuse assessments received them. Service providers in rural areas especially lacked the ability to provide adequate substance abuse treatment to adolescents (Heflinger, 2002). NIMH's (2000) *Fact Sheet* on rural mental health research reported that treatments combining psychotherapy and medication (often the most effective treatment options) are often not available for rural residents.

The lack of immediate treatment availability in rural areas is a significant problem for adolescents, whose motivation for treatment may wax and wane with their immediate situation more extremely than it does in adults. In the study described above, Melnick et al. (1997) discovered that adolescents' motivation and readiness for treatment is better

predicted by dynamic situational variables, such as age and life circumstances, than by fixed characteristics of the individual (essentially a state versus trait model). This could mean that although some adolescents may have occasions in which they are ready and willing to seek substance abuse treatment, the opportunity might be lost if that treatment is not immediately available, which is often the case in rural areas.

Accessibility. The Rural Healthy People 2010 project surveyed a variety of rural health administrators and service providers about priorities in improving the health of rural populations. The project discovered that at least two thirds of survey respondents placed access to quality health services among their top five priorities. Also ranked within the top ten priorities for all respondents were access to tobacco cessation and other substance abuse treatments (Gamm & Hutchinson, 2004). The fact is that higher quality, specialized treatment programs are often located only in urban centers which make them difficult for rural residents to access on a regular basis.

The National Center for Nursing Research (1999) states that we must consider that services cost more in terms of travel, both monetarily and time-wise, for rural residents of the United States. Travel to a treatment center can mean 6-13 miles on average for a rural resident and less than half of rural residents live within 15 miles of at least two treatment facilities. This fact is doubly important for rural adolescents, as many are not yet capable of driving and do not have access to public transportation. Many more cannot afford automobiles and fuel (Strong et al. 2005). The operating hours of treatment facilities also make some treatments practically inaccessible to students or working adolescents. In fact, Strong et al. (2005) report that rural residents are less likely than their urban counterparts to have regular access to even their primary healthcare provider

during weekend and evening hours. Finally, rural youth are unlikely to be able to independently pay for treatment services. This negates the potential benefits of confidentiality from parents provided to adolescents in some states, including Pennsylvania.

Rural norms. Ross-Lindsey & Kalafat (1998) remind us that help-seeking is embedded in the social network. The norms in the larger rural culture and those within the immediate peer group of adolescents' may play a pivotal role in how rural youth perceive substance use and treatment. Consideration of these norms is important to understanding access and stigma concerns related to treatment-seeking. Though as a whole often significantly different from those in urban populations, rural norms and values are widely varied in themselves. They, however, share aspects such as isolation, dense social networks, self sufficiency, traditional values, conservatism, distrust of outsiders, emphasis on family, and fewer resources to share among the population (Harowski, Turner, LeVine, Schank, & Leichter, 2006; Schoeneberger et al. 2006).

These norms and values may contribute greatly to help-seeking patterns in rural adolescents as is suggested by research that indicates social connectedness may be a key variable in assessing distinct types of help-seeking patterns. One pattern detected by Windle et al. (1991) was that people who perceived themselves as detached from some social resources and as more self-reliant (both qualities of rural populations) were likely to show no help-seeking from people outside of a few close friends, and little help-seeking even within that group. Thus, although rural youth may recognize themselves or peers as having substance abuse problems, the norms and values of their rural culture may deter them from seeking help, especially from professional sources.

Models of Problem Perception

In a now classic article, Brickman et al. (1982) described four models of perceiving problems based on internal versus external attribution of responsibility. Under the moral model, people are responsible for both their problems and the solutions to them. Motivation is thought to be the key factor in problem resolution. In the compensatory model, people are not responsible for their problems, but are responsible for finding and implementing the solutions to those problems. Here, personal power is the main component in solving problems. In the medical model, the person is not responsible for either their problems or their solutions. The view is that people need treatment to resolve their problems. Finally, the enlightenment model posits that the person is responsible for their own problems, but is unable or unwilling to solve them on their own. It is believed that a higher power or discipline is what is needed to resolve problems from this perspective. The authors stated that people assign blame to those they attribute responsibility for causing a problem, and control to those they attribute responsibility for changing or influencing events.

Brickman et al. also declared that research has "taken for granted the form people's behavior will take when they decide to help" (p. 368, 1982). The authors believed that people's problem-solving behavior is directly related to their attributions of responsibility for problems and their solutions. Holding each of these perspectives would thus affect both the help-seeking behaviors of people with problems, and the help-giving behaviors of outside observers. Therefore, these perspectives lead to the amount and type of help sought or given.

For example, an observer using the moral model may believe that an alcoholic/addict has a character flaw that allows him/her to abuse substances, and that this person needs only to be self-motivated to cease his/her abuse. This belief would lead the observer to use helping behaviors such as attempting to increase the abuser's awareness of his/her responsibility for the problem and the need to change. Using the moral model, an observer may not feel obligated to help at all, and from this model the substance abuser may not expect or seek outside help. An observer using the compensatory model could believe that the substance abuser was a victim of his/her social environment, and might use helping behaviors such as assisting the person in obtaining resources needed to solve the problem. From the compensatory model, the substance abuser would have a strong belief in relying only on the self for problem solutions.

From the medical model, an observer may believe that the substance abuser has a disease and is likely to help by endorsing supportive treatment from professional sources. The substance abuser him/herself is also likely to depend on professional help to solve problems from the medical model. Finally, an observer using the enlightenment model will see the substance abuser as personally flawed but unable to change on his/her own, and is therefore likely to help by assisting the person in following the steps to accepting low self-efficacy and giving themselves over to social, spiritual, or professional control. From this model, the substance abuser would seek out constant attachment to this higher power in order to find and maintain problem resolution.

Brickman et al. (1982) believed there were links between education and the problem perspective model that people were likely to hold. The authors describe how

elementary and middle schools influence children to use the medical model through espousing conformity to authority, while seeing children as controlled almost entirely by outside influences. The authors claim that in high school a switch is made to a more compensatory model when children, not yet fully in control of what happens to them, are asked to take more initiative in handling themselves and their daily activities. Colleges and higher education creates another switch, often to the moral model, when students are now considered adults who have chosen their own path and are responsible for their own progress. The authors suggest that those individuals who enter reform school or military services are likely to think from the enlightenment model due to training that constantly insists on submission to higher authority. It is therefore reasonable that other variables such as class, culture, age, and area of residence, as well as the interactions these variables have with education, can also influence the problem perspective model that people hold and thus, how they provide or seek help.

Right to Privacy

One factor in low treatment utilization among rural youth may be the perceptions adolescents hold about their right to privacy in substance abuse treatment. As Windle et al. (1991) showed, adolescents are not likely to see their parents or adults in the school setting as preferred resources for help with substance abuse problems. Research has also shown that requiring traditional parental consent cuts participation in by nearly half, and limits those who do participate to youth showing fewer risk behaviors (Frissell et al., 2004). Particularly, adolescents who are required to receive parental consent are less likely to report substance use, especially high-risk substance use such as injection use.

Adolescents may hold misconceptions that all youth must obtain parental consent for substance abuse treatment, and treatment or substance use history must be reported to school and law enforcement officials. As indicated above, this may seriously deter adolescents that consider seeking treatment for themselves. Some states do allow minor adolescents to obtain confidential treatment without the consent of parents, but this may not be well known among adolescents. Another problem may be that the situations in which adolescents can obtain treatment without parental consent may be too complicated for the adolescent to understand and utilize effectively, or may be voided by other factors such as inability to pay for, or travel to, treatment by themselves.

In the state of Pennsylvania, for example, minors under the age of 18 may obtain medical care and counseling related to the diagnosis and treatment of substance abuse without the consent of a parent (American Civil Liberties Union of Pennsylvania, 2005). However, the adolescent's confidentiality is only protected for outpatient services in treatment facilities that receive federal assistance or reimbursement. This is hardly a distinction that is likely to be readily made and comprehended by adolescents. In no circumstance may a minor receive inpatient substance abuse services without the notification of a parent or guardian. Finally, treatment providers in Pennsylvania are advised to inform clients about the difference between ability to consent and ability to pay for services. Billing and insurance claims can compromise the confidentiality of services provided to minors, and many adolescents are unable to afford cash payment for treatment services.

Peer Norms

At the immediate peer level, research has shown that the perceptions adolescents hold about peer behavior correlates with the adolescents' own behavior. Social norms theory proposes that people routinely overestimate the amount of unhealthy behavior their peers engage in, and they tend to adopt these excessive behaviors that they think are norms in their environment in order to be accepted. Unfortunately, research indicates that "compared to teenagers at the beginning of the 1990's teens today are less likely to consider alcohol and marijuana use harmful and risky and more likely to believe that use of these substances is widespread and tolerated [among their peers]" (Ott & Doyle, 2005). All of this indicates that adolescents overestimate substance use among peers and may increase their own substance use to mirror their perceptions of peer usage.

Olds & Thombs (2001) found that perceived peer norms for cigarette and alcohol use correlated significantly with self-use in 7th through 12th graders in both suburban and rural areas. Adolescents commonly overestimated substance use in their peers, and the greater the overestimation, the higher the reported self-use of these substances. Martens et al. (2006) found similar significant overestimations and correlations between peer perceptions of frequency of substance use in college students and their own self-use.

The perceptions adolescents hold about substance consumption norms within their peer group may be the most influential factor for determining self-use. In a survey study of Australian college freshmen, their same-sex best friends and their parents, Wilks & Callan (1988) found that best friends held extremely similar perceptions about appropriate situations for alcohol consumption. Survey questions included those exploring background information, drinking behavior, and attitudes about drinking

contexts. Freshmen and their best friends constantly perceived a higher number of appropriate situations for alcohol consumption than did their parents. Finally, it was also found that the prominence of socializing in a situation was the main factor in considering the context appropriate for consuming alcohol. Situations that allowed for increased peer interaction and socialization, such as celebrations, were deemed most appropriate for alcohol consumption. Thus, peer groups influence consumption in an increasing spiral as youths drink and observe their peers drinking in a larger number of social situations.

Deficits in Treatment Knowledge (when a problem already exists)

NIMH (2000) reports that rural residents are left with a lack of understanding about mental illnesses (such as substance abuse) and their treatments, and a lack of information about where to go for treatment. Rural residents are most likely to turn to their physicians for substance abuse treatment due to previously established relationships. However, many of these rural physicians report themselves ill prepared to treat chronically mentally ill patients due to lack of training, heavy case loads, and lack of community support services (Harowski et al., 2006). Poor integration of services and lack of understanding by patients and providers leaves rural populations with a lack of confidence in existing services, making them less likely to seek out treatment.

Adolescents are at a second disadvantage when it comes to knowledge about mental illness and treatment procedures. Literature has shown that adolescents have a general reluctance to seek help from formal resources, and instead prefer to turn to peers for help with personal problems, such as substance abuse (Ross Lindsay & Kalafat, 1998). This behavior increases the importance of disseminating knowledge about treatment options in an effective way among adolescents.

Objective Deficits in Rural Health Care

Perceptions of substance abuse treatment are extremely important to service utilization, but unfortunately the utilization problem is compounded by actual deficits in the availability and accessibility of rural health care. Rural areas have few professional service providers to choose from, and often a single alcohol and drug treatment center services an extensive area (Strong et al. 2005). Research suggests that young people need specialized services to overcome drug and alcohol problems (U.S. Department of Health and Human Services, 2006). However, Strong et al. (2005) comment that 95% of rural counties with populations between 2, 500 and 20,000 lack a child psychiatrist. More globally, in 1993, more than 1,500 rural counties in the United States entirely lacked a practicing psychologist, psychiatrist, or social worker of any kind. Instead, most rural substance abuse treatment is provided in hospitals. Even then, only one in ten rural hospitals offer such treatment, as compared to one in three in urban areas. In fact, rural residents with substance abuse problems are only half as likely to receive treatment as those in urban counties. However, as Strong et al. (2005, p. 63) report, "the effects of these constraints on rural communities have not been examined empirically."

As NCNR (1999) clearly states, rural people are not healthier than their urban counterparts. In fact the U.S. Department of Agriculture (Rural America at a Glance, 2006) stated that 12% of rural residents rated their health as fair or poor, compared to only 9% of urban residents. However, in general, rural residents consume fewer healthcare services. Sloboda (2002) states that barriers to this healthcare include lack of funding, fewer professionals, extended distance to treatment facilities, lack of health insurance, and lack of trust in existing health care services. NCNR (1999) adds greater

poverty, reduced availability of specialized services, long waiting periods, and lower average income to the long list of treatment obstacles. They also warn that rural populations are thus less able than urban populations to cope with health concerns (such as substance abuse problems) due to the dearth of services, even though the prevalence of concerns is similar in both populations. This warning suggests that substance abuse and other health concerns may be especially dangerous to rural populations.

Poverty and Rurality

The health care, housing, and transportation problems of holding low socioeconomic status (SES) cannot be separated from those of living in a rural area. Poverty and near-poverty is a reality faced by many rural residents. In the year 2000, one in five rural children (more than 2.6 million children) lived in a poverty stricken family (O'Hare & Johnson, 2004). Another 1.6 million lived in low-income families, just above the poverty line. Clearly, poverty and rural residency are inseparable. Though there is a possibility that the results of this study will reflect perceptions held primarily by the rural poor, they are still generalizable to the majority of rural American residents because they are also poor. In fact, of the 50 counties in the United States with the highest child poverty rates, 48 are rural counties (O'Hare & Johnson, 2004).

According to the U.S. Department of Agriculture (Rural America at a Glance, 2006) even after a two-year period of nationwide economic growth, in 2005 46% of rural counties had employment rates that still fell below earlier rates from 2000. In 2004, there were only 961,808 jobs available to rural Pennsylvanians, versus 6,064,734 jobs available to urban Pennsylvanians. The greatest unemployment rates were found among rural teenagers and minorities.

Higher unemployment and greater poverty also mean less health insurance for rural residents and other poverty associated barriers to treatment. These barriers include decreased treatment accessibility due to the recently increased cost of gasoline and transportation. Rural residents have been found to use 40% more gasoline than urban residents, depending more on personal vehicles and traveling longer distances (Rural America at a Glance, 2006). Unfortunately, the rural counties found to be the most remote and isolated from urban centers (where the majority of health care services are located) are also the most poverty stricken (O'Hare & Johnson, 2004).

In Pennsylvania, the per-capita income in 2004 was $25,455 in rural areas, as compared to $34,809 in urban areas, with rural jobs paying an average of over 10,000 dollars less per year than urban jobs (USDA, PA Fact Sheet, 2006). In Indiana County, from which the study population is sampled, 14% of families fall below the poverty line, leaving 19.8% of Indiana county children in poverty. Purchase Line students are over-represented among the poverty stricken, with an average of 49.5% of 9^{th} and 12^{th} graders qualifying for free or reduced lunch.

Hypotheses

Several findings were expected based on current literature (Melnick et al., 2006; Sears, 2004; Windle et al., 1991). It was expected that older and female adolescents would perceive lower levels of substance use as warranting professional help, than would younger and male adolescents. However, adolescents would generally tolerate higher levels of substance use than is defined by research as appropriate before recognizing the need for professional treatment. It was expected that adolescents would choose non-professional over professional substance abuse treatment options, again with older and

female adolescents more likely to choose professional help compared to their younger and male counterparts. It was expected that rural adolescents would perceive themselves at a significant disadvantage to urban adolescents in surmounting obstacles to obtaining substance treatment. Finally, they would have a general lack of knowledge about available treatment options compared to the actual number of options existing in their community.

Summary

Increasing rates of rural adolescent substance use (Sloboda, 2002), coupled with the lack of knowledge adolescents may have about treatment options (NIMH, 2000), and the actual deficits in treatment availability and accessibility in rural areas (Strong et al., 2005) creates a dangerous mixture. Substance use among rural adolescents is high and is not decreasing at a rate comparable to that of more urban locations. One reason for this disparity may be the relative lack of help-seeking and treatment utilization behaviors among rural residents. The perceptions that rural adolescents, in particular, hold about the appropriateness of substance use, help-seeking, treatment utilization, and norms among their similar-age peers and their rural culture may all be factors in the lack of substance abuse service utilization by rural youth.

This problem indicates support for Ross-Lindsey and Kalafat's (1998, p. 172) statement that what is needed "are formative evaluations that identify characteristics and strategies associated with provision of effective services to those youth most in need. Among the various elements that may be important to explore are adolescents' attitudes toward help-seeking." This study aimed to discover those attitudes and the correlations

between these and other perceptions rural youth hold about problem recognition, and the availability and accessibility of substance abuse treatment.

CHAPTER II

METHOD

Participants

The participating school district was located in a rural county of Pennsylvania as defined by The Center for Rural Pennsylvania. The Center for Rural Pennsylvania (2006, Rural/Urban PA section, ¶ 3) designates a county or school district as rural when "the number of persons per square mile within the county or school district is less than 274. Counties and school districts that have 274 persons or more per square mile are considered urban." Therefore, the participant school district meets the criteria of a rural area, because of its location in a county of Pennsylvania, which has a population density of 108 people per square mile.

Participation was elicited from adolescents attending grades 9 and 12 at a rural junior/senior high school, in Western Pennsylvania. Ninth grade students returned affirmative parental consent forms at a rate lower than 12th grade students, (48.96% versus 86.81%). The final sample included 39 ninth grade participants (40.63%), and 61 twelfth grade participants (62.87%). The 100 participants ranged in age from 14 to 19, with a mean age of 14.79 for 9th graders and 17.55 for 12th graders. Both 9th and 12th grade samples consisted of approximately 50% male and 50% female students, for a total of 37 male and 59 female participants. Four participants chose not to provide their sex.

Ethnic and socioeconomic demographics were not collected for the specific sample. First, it was judged unlikely that participants would be able to provide accurate estimates of their socioeconomic status (SES), and procedures for ensuring anonymity were at odds with the possibility of identifying responder SES in another way. Second,

given the low number of ethnic minority students, knowing grade and ethnicity could easily have led some administrators to know the participant's identity. As a supplement, school administrators provided demographics for the entire 9th and 12th grades (see Table 1). The student population was predominantly Caucasian, with a mean of 1.5% minority students per grade. As a measure of SES, 40% of 12th graders qualified for free or reduced lunch, as did 59% of 9th graders. Those who qualified for free lunch consistently outnumbered those who qualified for reduced lunch (26% of 12th graders and 43% of 9th graders). It should also be noted that in each grade, a mean of 18.5% of the students are assigned to special education for at least one subject class (17.5% of 12th graders and 19.8% of 9th graders).

Table 1

Demographic Characteristics of All 9th and 12th Grade Students

Characteristic		9th grade		12th grade	
		n	Percent	*n*	Percent
Male	Total	50	52.1%	47	48.5%
	Special education	12	12.5%	8	8.2%
	Ethnic minority	0	0%	0	0%
Female	Total	46	47.9%	50	51.5%
	Special education	7	7.3%	9	9.3%
	Ethnic minority	2	1.5%	1	1.5%
Total		96		97	
	Reduced lunch	16	16.7%	14	14.4%
	Free lunch	41	42.7%	25	25.8%
	Total low SES	57	59.4%	39	40.2%

Materials

Perceptions of substance treatment survey (POSTS). To determine problem recognition and the perceptions that rural adolescents hold about the accessibility and availability of substance treatment, a survey method was employed. The POSTS (see Appendices A & B) was constructed by the author for this purpose. The POSTS begins with four vignettes describing the substance use of a hypothetical peer (see Table 2).

Table 2

Vignettes and Level of Substance Use, Adapted from MacDonald (1984) and Comerci (1985)

Level	Description	Vignette Number & Synopsis
1. Experimentation	Use of inhalants, tobacco, marijuana, and alcohol with friends Few, if any, consequences May increase to regular weekend use Little change in behavior	#2 Recently started smoking cigarettes Tried it when he was hanging out after school with friends. Thought he could just have one cigarette a day Started having cravings Upset because he thought he could control his smoking but can't
2. Pre-Abuse	Use of other drugs, eg. Stimulants, LSD, sedatives Behavioral changes and some consequences Increased frequency of use Uses drugs alone Buying or stealing drugs	#1 Started just drinking at parties. Now she hides alcohol in her room Drinks alone a few times a week Sneaking around to drink makes her feel like a loser. Lies to her parents to cover up her unusual behavior.
3. Abuse	Daily use of drugs Loss of control Multiple consequences and risk-taking Estrangement from family and "straight" friends	#4 Got suspended for smoking pot High at practice at least once a week, but smokes more frequently If she gets caught again she will be kicked off the team.
4. Dependence	Use of multiple substances, cross-addiction Guilt, withdrawal, shame, remorse, depression Physical and mental deterioration and tolerance Increased risk-taking, self-destructive behavior, or suicidal behavior	#3 Expelled from school for buying meth Taking it regularly for a while and has recently begun to take more Asked you for money to buy meth Has also been caught stealing money from his mom's purse to buy drugs In trouble at school a lot lately and his parents are extremely upset Tells you he hates to be in so much trouble, but he can't stop using meth even if it means getting sent to juvenile detention.

The amount and type of substance involved, as well as the setting of substance use, sex of the character, and the amount of trouble substance use is causing the character were varied between the vignettes. In this way, each vignette was meant to describe a specific level of substance use. The levels of substance use (see Table 2) were based on the stage theory developed by MacDonald (1984), and expanded upon by Comerci (1985).

The vignettes in the POSTS were created with the intention that each participant could read them and closely relate to the characters therein. Two forms of the POSTS were created in order to vary the gender of the characters in the vignettes presented in the survey. However, due to the demographic differences within the chosen study sample the vignette characters were purposely left ambiguous as to race, class, and age. Instead of specifying their personal characteristics, the vignette characters were described as friends, classmates, teammates, and acquaintances of the participants in order to maximize the ability for the participants to relate to the characters in the vignettes. The vignettes were created in this way, rather than including questions about an actual peer, or personal substance use in the survey. This was done in accordance with research that suggests traditional direct methods increase socially desirable responding, including underreporting of substance use problems (Barter & Renold, 1999).

According to Barter and Renold (1999) vignettes are especially useful in researching sensitive topics with children and young people. The three main purposes for vignettes in research are to allow exploration of actions in context, to clarify people's judgements and to provide less personal and less threatening ways to explore sensitive topics. Because commenting on a story is less personal than commenting on oneself, vignettes seem less threatening to people who are being asked about sensitive topics and

thus, allow freer responding. However, the ambiguity of the characters presented in the vignettes allows the participants to define the situation presented in their own terms.

In fact, in Barter and Renold's (1999) compilation of guidelines for using vignettes in research, it is suggested that the vignette be specific enough to provide the participant with an understanding of the situation, but vague enough so that the participant must provide their own factors which influence their decisions in answering questions about the vignettes. The guidelines also suggest that vignettes must appear plausible, be engaging, use appropriate language for the participant age group and be internally consistent.

However, the authors warn that vignette research has not yet shown a consistent relationship between people's responses to the vignette and their actual behavior in that situation. That is why Barter and Renold (1999) strongly suggest that vignettes be used as a complement to other research methods. When used in this multi-method approach, vignettes can be useful as icebreakers at the beginning of a survey to elicit critical thinking, to explore a participant's own definitions and evaluations of a situation, to elicit cultural norms, and to explore sensitive topics, especially with children and young people.

Following the multi-method approach espoused by Barter and Renold (1999), each vignette was followed by a series of Likert-scale questions designed by the authors to assess opinions about the seriousness of the substance problems presented, the saliency of factors related to determining the need for professional treatment, and the likelihood of recommending a variety of treatment resources to the troubled character. The POSTS also included Likert-scale questions about the perceived difficulty of overcoming

obstacles to attaining substance abuse treatment, the participants' familiarity with several types of treatment resources, and the participants' feelings of preparedness to assist a peer with a substance abuse problem. Several demographic questions concluded the POSTS.

The questions included in the POSTS were determined by a process loosely based on Clark and Watson's (1995) model for scale development. First, the construct that was to be studied was defined as the perceptions of substance use, and the availability and accessibility of substance treatment held by rural adolescents. The author then conducted a thorough review of the literature available on related topics (see Introduction). A preliminary pool of item topics was then created and reviewed by the dissertation chair and several volunteers. Preliminary items were then written with special attention to language and understandability. These were informally piloted to volunteers and modified as needed to ensure responses were in accordance with the information desired by the author. Several versions of the POSTS were reviewed by the research team and informally piloted to volunteers before the final version was chosen.

In accordance with the recommendations of Barter and Renold (1999) that vignettes must appear plausible, be engaging, and use appropriate language for the participant age group, early versions of the POSTS were informally piloted on three male, and three female volunteers in the desired age range. This was done to insure readability and accurate understanding of questions, as well as estimate completion time. Readability of the complete survey materials was further examined through analysis with the reading level assessment tool in the Microsoft Word (2003) program. In Microsoft Word reading level is estimated by two scores. The Flesch Reading Ease score rates text on a 100-point scale; the higher the score, the easier it is to understand the document. For

most standard documents, a score of approximately 60 to 70 is recommended. The POSTS survey received a score of 71.2. The Flesch-Kincaid Grade Level score rates text on a U.S. grade-school level. For example, a score of 8.0 means that an eighth grader can understand the document. For most standard documents, a score of approximately 7.0 to 8.0 is recommended. The POSTS received a score of 6.2. In addition, definitions of some words and examples of some concepts were inserted into the survey in order to ensure accurate understanding. The final version of the POSTS was eight pages in length, including the Short Understanding of Substance Abuse Scale (see below) and took approximately 15-30 minutes to complete.

Short Understanding of Substance Abuse Scale (SUSS). The 19-item, Short Understanding of Substance Abuse Scale (SUSS) was also included within the POSTS survey to assess beliefs about substance abusers held by rural adolescents and compare them to those matching the *disease model*, the *psychosocial model*, and the *eclectic orientation model.* According to Humphries, Greenbaum, Noke and Finney (1996), the Understanding Alcoholism Scale (UAS) was originally created with the purpose of assessing beliefs about the etiology and appropriate treatment of alcoholism. It was later adapted into a briefer 19-item instrument that included assessment of beliefs about abuse of substances other than alcohol, and renamed the Short Understanding of Substance Abuse Scale (SUSS). The SUSS includes sections which assess beliefs matching the *disease model* (7 items), the *psychosocial model* (5 items), and the *eclectic orientation model* (7 items). Beliefs covered by the *disease model* include physiological factors related to the development and treatment of substance abuse. The *psychosocial model* encompasses beliefs related to environmental and social factors. Finally, the *eclectic*

orientation model includes beliefs that reflect a personalized and eclectic approach to understanding and treating substance abuse in each individual person.

Internal consistency for the SUSS, using Chronbach's alpha, was shown to be .78 for the disease subscale, .75 for the psychosocial subscale and .61 for the eclectic subscale (Humphries et al., 1996). Factor analysis also showed the three subscales to be unrelated to each other, with three factors creating the best fit for the beliefs assessed, allowing for confidence in the construct validity of the SUSS. Discriminant validity was determined by exploring whether scores on the SUSS discriminated between different types of health care professionals. As expected, it was discovered that the SUSS did significantly discriminate between medical professionals, psychological professionals, and other health care workers (including work study students) on all three subscales. Higher scores on the eclectic subscale were found to sharply distinguish those with occupations requiring higher educational attainment ($r = .19$, $p < .000$). The psychosocial subscale also had a positive correlation with education ($r = .36$, $p < .001$). The disease subscale correlated with lower educational attainment ($r = -.29$, $p < .000$).

Humphries et al. (1996) recommended that the SUSS be used in future studies to explore questions related to how peoples' beliefs about substance abuse etiology and treatment influence why particular treatment goals are established and implemented. The SUSS also has precedent for use with adolescents. It has previously been employed with adolescent substance users in order to gauge the way they think about alcoholism and drug abuse (Brzostek, 1999). Thus, it was an appropriate choice for the current study to explore how adolescents' beliefs about substance abuse etiology and treatment correlate with their reports of treatment preferences.

Procedure

Several appropriate local school districts in which to conduct this research were chosen by consulting the definition of "rural" according to The Center for Rural Pennsylvania. These districts were contacted by the authors via telephone and asked about their willingness to participate. Due to various reasons including the transferring of an administrator and a possible merger with another school district, only one district agreed to participate in the study.

The assistance of the participating junior/senior high school staff was obtained via telephone and e-mail contact in order to accommodate this dissertation research. Prior to survey administration, data collection procedures were reviewed and approved by Indiana University of Pennsylvania's Institutional Review Board and the participating junior/senior high school (see Appendix F for site approval letter). Permission to participate was then solicited from the parents of students via take-home consent packets that were distributed to the students by the teachers of their Social Studies classes. The take-home packet included a cover letter explaining the survey and the option to participate, a parent consent form, and an adolescent assent form (see Appendix C). The students were given one week to return the consent packets to their Social Studies teachers.

The following week the researchers visited the junior/senior high school. They introduced the POSTS to each participating class and administered the survey to the students, who completed it during time allotted in their Social Studies classes (see Appendix D for script). Forms A and B of the POSTS were distributed randomly to the participants. To maximize privacy all students attending the Social Studies classes were

given a survey to complete. However, the surveys of non-participants had been inconspicuously pre-marked so that they could be destroyed immediately after collection. Upon collection of the completed surveys, the researchers distributed a resource sheet to all class members, which contained local substance treatment resources and contact information for the researchers (see Appendix E). The researchers answered any remaining questions and thanked the class for their participation.

Of the completed surveys, the marked surveys were shredded and were not used for further analysis in any way. The remaining surveys were examined, and after eliminating 10 participants who reported experience living in urban settings, analyses were conducted on a total of 100 completed surveys. Early analyses showed no significant differences when the urban participants were included in the sample, however this may have been the result of the small number of them. To examine this finding further, a matched sample was created to compare the responses of the urban with the rural participants, and the results still showed no significant differences between the groups. The decision was made to exclude the urban participants despite this fact, as the original intent of the study was to examine only rural adolescents.

The next step was to determine the SUSS category of each of the 100 participant surveys. Upon scoring the SUSS portion of the survey, a total of 31 participants scored as believing in the disease model, 34 believed in the psychosocial model, and 26 believed in the eclectic model. Eight participants had SUSS scores that were tied between two or more models. One participant did not complete the questions in a way amenable to scoring (see Table 3). No significant differences in the proportion of participants scoring in each SUSS category were found for sex or grade.

Table 3

Grade by Participant Sex by SUSS Score Category Crosstabulation

SUSS category				Sex		Total
				Male	Female	
Tie Score	Grade	9	*n*	1	1	2
			% of total	12.5%	12.5%	25.0%
		12	*n*	2	4	6
			% of total	25.0%	50.0%	75.0%
	Total		*n*	3	5	8
	% of total			37.5%	62.5%	100.0%
Disease	Grade	9	*n*	0	8	8
			% of total	.0%	26.7%	26.7%
		12	*n*	11	11	22
			% of total	36.7%	36.7%	73.3%
	Total		*n*	11	19	30
	% of total			36.7%	63.3%	100.0%
Psychosocial	Grade	9	*n*	5	8	13
			% of total	15.2%	24.2%	39.4%
		12	*n*	9	11	20
			% of total	27.3%	33.3%	60.6%
	Total		*n*	14	19	33
	% of total			42.4%	57.6%	100.0%
Eclectic	Grade	9	*n*	5	7	12
			% of total	20.8%	29.2%	50.0%
		12	*n*	4	8	12
			% of total	16.7%	33.3%	50.0%
	Total		*n*	9	15	24
	% of total			37.5%	62.5%	100.0%

Regression analyses were performed in order to explore the tie scores further. The analyses revealed that the participants who scored in the three specific valid SUSS categories (disease, psychosocial, & eclectic) answered the SUSS questions in a way that was significantly different, at the .004 level or below, from those who scored in a different category. Similar to statistics reported by Humphries et al. (1996) it was found that the disease and eclectic models were significantly negatively correlated, as were the psychosocial and eclectic, but not significantly (r = -.473 and r = -1.20 respectively). However, the psychosocial and disease models were significantly positively correlated (r = .219).

The meaning of receiving a tie score was varied because scores were tied in several different ways. As explained above, there is a correlation between the beliefs covered by the disease model (which include physiological factors related to the development and treatment of substance abuse) and the psychosocial model (which encompass environmental and social factors). Ties on these two models may have indicated a more biopsychosocial perspective. The eclectic orientation model however, reflects a personalized approach to understanding and treating substance abuse in each individual. Being eclectic is different from simply tying between models. The eclectic model is negatively correlated with both other models, and indicates an individualized perspective, rather than a global perspective. Ties between the negatively correlated models may be a reflection of the developmental stage of some rural adolescents who have not yet settled on a single heuristic for the development and treatment of substance abuse. Due to the variability in the types of tie scores, the participants who received them

were excluded from analyses involving SUSS category, but were included in all other analyses.

CHAPTER III

RESULTS

The primary purpose of this study was to assess rural adolescents' substance problem recognition and perceptions of substance abuse treatment availability and accessibility. To accomplish this, first simple descriptive statistical analyses of the completed surveys were performed. Furthermore, the qualitative data collected from the surveys was analyzed for thematic content as well as frequency of responses (see Appendices H & I). Univariate one-way repeated measures were also used to assess significant differences between rural adolescent perceptions of substance problem seriousness, likelihood to utilize and familiarity with different treatment resources, and perception of difficulty in overcoming different obstacles to obtaining treatment.

Finally, MANOVA and ANOVA analyses were used to compare the responses of participants by grade and sex, and by SUSS category, to determine the significance of these factors in influencing perceptions of substance use and treatment. However, when grade, sex, and SUSS category were completely crossed, the cell sizes became quite small and unequal. In fact, as shown in Table 3, there was one cell (9^{th} grade males who endorsed the disease model) that was completely empty.

As a result of these small and unequal cell sizes, it was not appropriate to employ a completely crossed design as was originally intended. Instead, two separate sets of analyses were conducted. One set of analyses was based on a two-way design using sex and grade as the independent variables (IVs). Although the final sample included 100 completed surveys, not every participant answered each survey question. Therefore, the total sample size for each separate analysis within this set varies slightly. The second set

of analyses followed a one-way design using the three SUSS categories (disease, psychosocial, and eclectic) as the independent variable. This set of analyses was run on the 91 surveys that were completed in a valid way for SUSS category. As mentioned above, the eight surveys that were tied as to SUSS category and the one survey that was completed incorrectly were excluded from this set of analyses.

Based on current literature, (Melnick et al., 2006; Sears, 2004; Windle et al., 1991) several findings were expected for comparisons between perceptions of substance use treatment based on grade and sex. It was also expected that believing in the disease model (as assessed by the SUSS) would play a significant role in determining treatment resource preference, especially toward professional resources. Findings based on these hypotheses are described below.

Preliminary Comparisons

Preliminary comparisons were completed between responses on Forms A and B of the POSTS. These comparisons consisted of several MANOVAs all using survey form (A or B) as the IV. The individual (DVs) explored were mean seriousness rating on each of the four vignettes, and the mean rating of the participants' likelihood of utilizing each resource to help the person depicted in each vignette. These analyses were done in order to examine whether the sex of vignette characters (as presented differently in POSTS Forms A and B) affected participants' ratings of the seriousness of the substance use problem described, or the resources chosen by participants to help that character. Differences in responses by sex of the vignette character (survey form) were weak and inconsistent, suggesting that this variable did not play an important role in participants' ratings. This finding is also supported by the fact that sex was universally rated by

participants as the least important factor in determining substance problem seriousness, with a mean rating of only 1.61 (see Figure 1). Due to the triviality of differences in responses between forms of the POSTS, Forms A and B were combined for all analyses.

Opinions of Alcohol and Other Drug Use

It was hypothesized that rural adolescents would generally condone higher levels of substance use than is defined by research as appropriate before perceiving the need for professional treatment. More specifically, it was expected that older and female adolescents would perceive lower levels of substance use as warranting professional help, than would younger and male adolescents. Interestingly, different results were obtained when this topic was examined for alcohol use than for other drug use.

MANOVA analysis was first performed with only the IV of SUSS category (disease, psychosocial, eclectic) and the DVs mean drug level and mean alcohol level, where the response choice "1" was equal to experimentation, "2" was equal to pre-abuse, "3" was equal to abuse, and "4" was equal to dependence. This analysis revealed no significant multivariate effects between SUSS categories on participant opinions when rural adolescents were asked to indicate the initial level of alcohol use and drug use (from a list of level descriptions) that was appropriate for professional treatment (see Table 4). However, when the second MANOVA analysis was completed, using sex (male, female) and grade (9^{th}, 12^{th}) as the IVs, it revealed a significant multivariate effect for grade on both drug and alcohol level (see Table 5). The results of this second analysis showed that 9th graders chose significantly more severe levels of alcohol use (p = .011. partial η^2 = .107) and drug use (p = .002. partial η^2 = .076) than 12^{th} graders before recommending professional treatment.

Table 4

Mean Alcohol and Drug Levels by SUSS Category

SUSS Category	*n*	Alcohol *M* (SD)	Drug *M* (SD)
Disease	30	2.65 (.95)	2.26 (1.12)
Psychosocial	33	2.85 (.86)	2.88 (.81)
Eclectic	24	2.84 (.94)	2.88 (1.13)

Table 5

Mean Alcohol and Drug Levels for Grade by Sex

Grade	Sex	*n*	Alcohol Level *M* (SD)	Drug Level *M* (SD)
9	Male	11	3.1 (.88)	2.9 (.99)
	Female	24	3.14 (.94)	3.27 (.94)
12	Male	26	2.54 (.78)	2.29 (1.00)
	Female	34	2.63 (.89)	2.43 (1.01)

When looking specifically at opinions about alcohol use, the results for the ANOVA analysis using only SUSS category as the IV, and the DV mean alcohol level, revealed no significant differences between SUSS categories on participant opinions when rural adolescents were asked to indicate the initial level of alcohol use that was appropriate for professional treatment. However, the second ANOVA analysis using sex and grade as IVs revealed a significant effect for grade on initial alcohol level chosen for professional treatment. Ninth graders chose significantly more severe levels of alcohol use ($p = .011$. partial $\eta^2 = .107$) than 12^{th} graders before recommending professional treatment. Of note, the largest percentage of 9^{th} graders (39.5%) would wait until

dependence to recommend professional help to alcohol users, compared to only 18% of 12th graders, whose largest percentage (47.5%) recommended pre-abuse as the appropriate level for professional intervention.

Looking at all participants together, only 6.1% believed professional treatment was needed for alcohol use at the experimentation level. The largest percent (39.4%) believed that professional treatment was needed at the pre-abuse level, the level defined by MacDonald (1984) and Comerci (1985) as most appropriate for initiating professional treatment. Another 28.3% indicated the abuse level as the first in need of professional treatment, meaning that a total of 72.8% of participants would suggest professional help for a person by the time they were consuming alcohol at the abuse level. This left 26.3% of participants who did not recommend professional help for alcohol use until the dependence level was reached.

When drug use was specifically examined as the DV, the ANOVA analysis using sex and grade as IVs revealed a significant difference between 9th and 12th grade students ($p = .007$. partial $\eta^2 = .077$). In this case, as hypothesized, 9th graders were more likely to tolerate greater substance use than 12th graders before indicating a need for professional treatment. Specifically, the largest percent of 9th graders (42.1%) waited until dependence before recommending professional treatment, compared to only 13.1% of 12th graders, whose largest percentage (34.4%) recommended professional help at the abuse level. Multiple comparisons for the ANOVA with only SUSS category as the IV also revealed that participants in the psychosocial SUSS category tolerated significantly more drug use than those in the disease category ($p = .041$).

When examined overall, participants tolerated more drug than alcohol use before indicating a need for professional treatment, with the largest percentage (32.3%) waiting until the abuse level. However, there were still a greater number of participants who would recommend professional help at the earliest stage of drug use, experimentation (17.2%) than for alcohol use (6.1%). Another 26.3% recommended the pre-abuse level for initiating professional treatment, creating a similar percentage (75.8%) that would recommend professional treatment for drug use, as for alcohol use, by the time the abuse level was reached. Interestingly, this leaves a similar 24.2% of participants overall who did not feel a need for professional treatment until the dependence level was reached.

Substance Problem Seriousness

To examine the perceptions that rural adolescents held about the seriousness of the substance problems presented in the four POSTS vignettes, MANOVA analyses were completed using sex and grade as IVs and the mean substance abuse problem seriousness ratings for each of the survey's four vignettes as the DVs. This analysis showed no significant multivariate or between subjects differences for sex or grade on the mean seriousness ratings that participants gave to each vignette. Neither were there significant differences between SUSS categories when a second MANOVA was performed using only SUSS category as the IV.

Univariate one-way repeated measures analysis were completed, using the seriousness rating for each vignette as the IV (4 levels) to determine whether there were significant differences overall between rural adolescents' perceptions of problem seriousness depicted in each vignette (see Figure 1). The two-tailed paired samples t-tests found several significant differences at the p =.000 level.

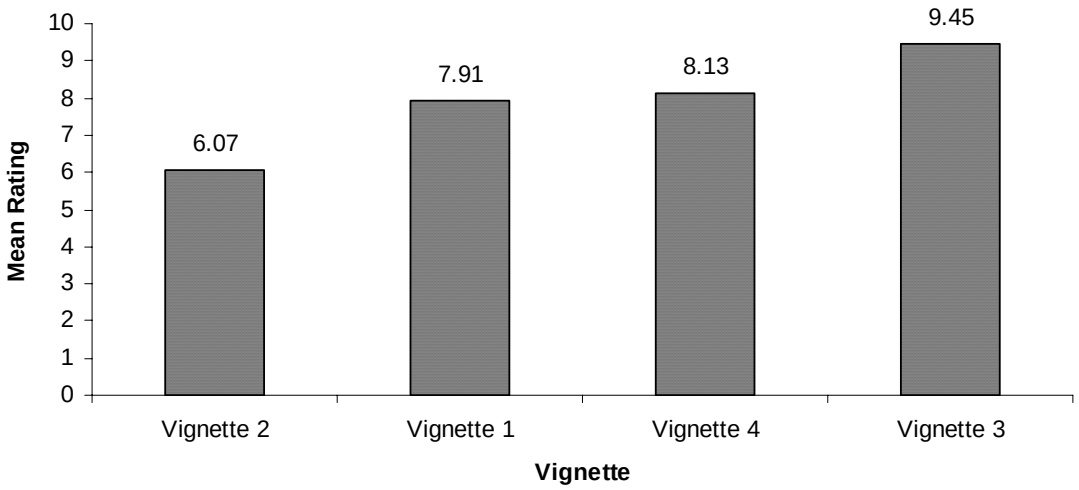

Figure 1. Mean rating (on a scale of 1-10) given by the entire sample describing the seriousness of the substance abuse problem depicted in each vignette.

Note. Vignette 1 = alcohol use at the pre-abuse level, Vignette 2 = cigarette use at the experimental level, Vignette 3 = methamphetamine use at the dependence level, Vignette 4 = marijuana use at the abuse level.

All of the participants reported Vignette 2 (cigarette use at the experimental level) as the least serious with a mean rating of 6.07 (out of 10). In fact, Vignette 2 was rated as being significantly less serious than all other vignettes at the p =.000 level. All participants also rated Vignette 3 (methamphetamine use at the dependence level) as the most serious with a mean rating of 9.45. Vignette 3 was also rated as significantly more serious than all other vignettes at the p =.000 level. However, the consensus was broken for Vignettes 1 (alcohol use at the pre-abuse level) and 4 (marijuana use at the abuse level). Among the entire sample, these two vignettes were not found to have significantly different ratings from each other, though they were both rated at the p =.000 level as being significantly more serious than Vignette 2 and significantly less serious than Vignette 3. Between the different sample groups, males and 12th graders reported that

Vignette 1 was more serious, and females and 9th graders reported that Vignette 4 was more serious. Mean ratings for these two vignettes ranged from 7.53 to 8.30.

Factor Importance

Four further MANOVA analyses were completed (one for each vignette) all of which used sex and grade as IVs and the mean importance rating given to each factor (character sex, character age, type of substance used, amount of substance used, and amount of trouble substance use was causing in the life of the user) as DVs (see Figure 2). No significant multivariate or between subjects effects were found for either sex or grade on participant opinions of the importance of different factors. When these four MANOVAs were repeated with only SUSS category as the IV no significant differences between SUSS categories were found either.

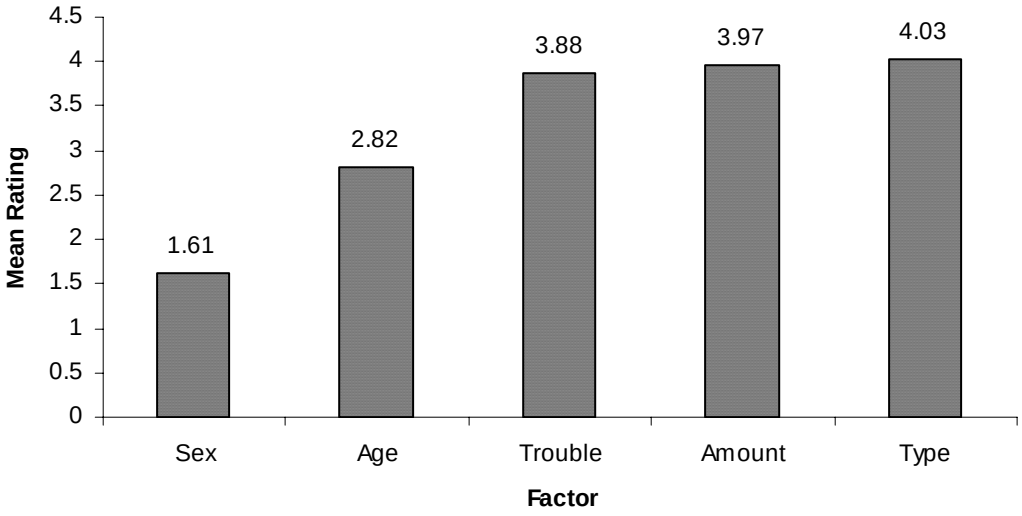

Figure 2. Mean rating (on a scale of 1-5) given by the combined 9th and 12th grade sample for each factor's influence in determining the seriousness of the substance abuse problems depicted in the vignettes.

Note. Sex = sex of the vignette character; Age = age of the vignette character; Trouble = amount of trouble substance use was causing in the life of the vignette character; Amount = amount of substance consumed by the vignette character; Type = type of substance consumed by the vignette character.

In order to make comparisons between ratings of factors participants considered important in making their vignette seriousness ratings, a univariate one-way repeated measures analysis was run using mean factor rating as the IV (5 levels). The two-tailed paired samples t-tests revealed that the differences in vignette seriousness ratings seen above were most likely due to the type of substance being used in the vignette (M = 4.03 out of 5), the amount of the substance being used (M = 3.97) and the amount of trouble substance use was causing in the life of the user (M = 3.88). These comprised the top three factors between which no significant differences in rating were found. All three of these factors were rated by the rural adolescent participants as being significantly more important at the p = .000 level than the factors of age and sex of the vignette character, which were generally described as being of little importance in determining substance problem seriousness (M = 2.82 and M = 1.61 respectively).

Resource Utilization

It was hypothesized, given earlier research studies, that rural adolescent participants would choose non-professional over professional sources of help, with older females more likely than younger males to choose professional help. The first part of the hypothesis, that rural adolescent participants would choose non-professional over professional sources of help, was not entirely supported by the results of the analyses (see Figure 3). A univariate one-way repeated measures analysis was run using mean resource utilization rating as the IV (9 levels). The two-tailed paired samples t-tests revealed the inclusion of treatment centers (M = 3.73 of 5) and support groups (M = 3.69) among the top five most often recommended (and not significantly differently rated) resources. However, the professional resource of school counselor/psychologist was rated the third

lowest ($M = 2.69$) and not statistically different from the paraprofessional or non-professional resources of teacher, religious leader, or own parents.

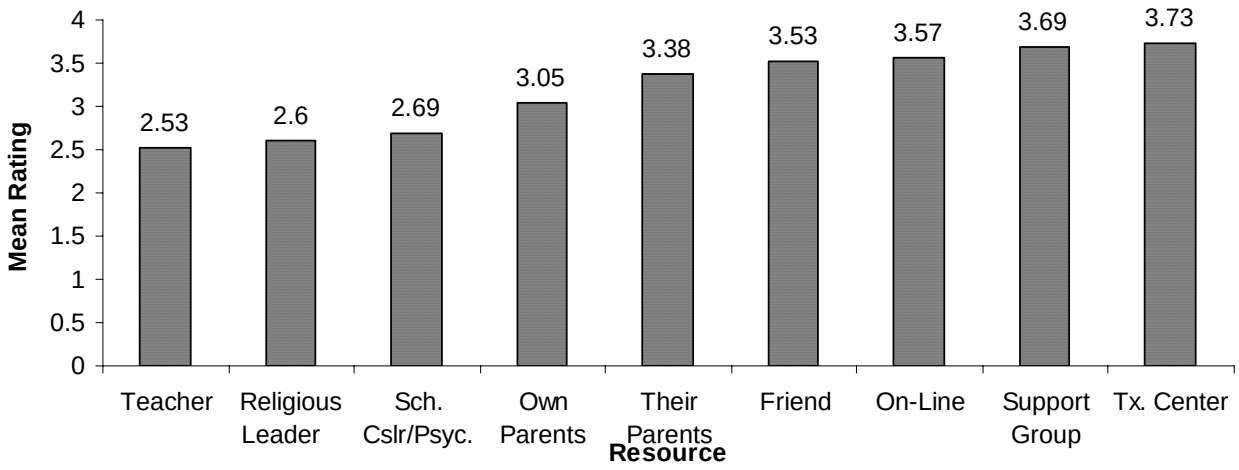

Figure 3. Mean rating (on a scale of 1-5) given by the combined 9th and 12th grade sample for the likelihood of recommending each substance use help resource to those depicted in the vignettes.

Note. Sch. Cslr/Psyc. = school counselor or psychologist; Own Parents = the participant's parents; Their Parents = the vignette character's parents; Tx Center = treatment center.

Instead of the expected professional/non-professional split, a trend was seen in which the vignette character's parents (their parents) was the resource in transition between the most and least recommended resources. The top four resources (treatment centers, support groups, on-line information, and friends) were all significantly different at the $p = .005$ level or greater from the bottom four resources (teachers, religious leaders, school counselors and psychologists, and the participant's parents). However, the resource of the vignette character's parents was found to be statistically similar to the top four resources as well as the resource of the participant's parents, but significantly different from the bottom three resources at the $p = .005$ level or greater.

The second part of the hypothesis, that older females were more likely than younger males to choose professional help, was partially supported. The mean ratings of all the resources were added across the four vignettes into a single composite help-seeking score that would reflect the likelihood of participants to use any substance treatment resource in general. This score was used as the DV in a MANOVA with sex, and grade as the IVs. In these analyses it was found that females were significantly more likely than males to seek help from any resource in general (p = .004, partial η^2 = .092).

To examine this, a MANOVA was completed with sex and grade as the IVs, and the mean ratings of likelihood to utilize each substance treatment resource as the DVs. On many occasions the between subjects results for this MANOVA revealed that females were significantly more likely than males to utilize specific help resources. However this was inconsistent across vignettes. Table 6 presents the specific instances in which females were more likely than males to use a particular resource.

In this table partial η^2 indicates effect size. According to the standards for interpreting effect size developed by Cohen (1988), .01 indicates a small effect, .06 indicates a moderate effect, and .14 indicates a large effect. It should be noted, however, that partial η^2 has a tendency to overestimate effect size, and thus should be interpreted with caution (see *Limitations* in RESULTS section for a more complete description of this phenomenon).

Table 6

Summary of Significant Differences Between Female and Male Resource Utilization

Vignette	Resource	*p*	Partial η^2
1	Tx Center	.004	.098
	Own parents	.002	.116
	Their parents	.001	.116
	Support group	.002	.106
	Religious leader	.034	.054
2	Own parents	.034	.053
	Teacher	.012	.073
	Sch.Cslr/Psyc	.024	.060
	Tx Center	.007	.084
	Their Parents	.020	.064
	Religious leader	.022	.062
3	Friend	.030	.055
	Own parents	.025	.059
	Religious	.045	.048

Note. Sch. Cslr/Psyc. = school counselor or psychologist; Own Parents = the participant's parents; Their Parents = the vignette character's parents; Tx Center = treatment center.

A second hypothesis regarding resource utilization was that rural adolescent participants in the disease SUSS category would be more likely than those in other categories to seek help, especially from professional sources. The help-seeking composite MANOVA analysis, which used only SUSS category as the IV supported this hypothesis. It revealed that participants in the disease SUSS category were more likely than those in the psychosocial category and significantly more likely than those

in the eclectic category, to seek any form of help (p = .009). Again, the between subjects results of a MANOVA performed with SUSS category as the IV and the mean ratings of likelihood to utilize each substance treatment resource as the DVs showed several specific instances in which participants in the disease category were more likely to use a particular resource than those in other SUSS categories (see Table 7).

Table 7

Summary of Significant Differences Between Disease and Other SUSS Category Resource Utilization

Vignette	Relevant Category	Resource	p	Partial η^2
1	Eclectic	Religious eader	.003	.122
	Psychosocial	Their parents	.028	.079
2	Eclectic	Own Parents	.011	.097
	Eclectic	Tx Center	.022	.083
	Eclectic	Their parents	.032	.075
4	Psychosocial	Teacher	.028.	.078
	Psychosocial	Their Parents	.043	.069

Note. Own Parents = the participant's parents; Their Parents = the vignette character's parents; Tx Center = treatment center.

Obstacle Difficulty

It was also hypothesized that rural adolescents would strongly perceive a great number of obstacles to obtaining treatment. This was indicated by the fact that average ratings of obstacle difficulty were all relatively high, ranging from 3.31 for travel distance to 4.07 for maintaining privacy (see Figure 4). A univariate one-way repeated measures analysis that was run using mean obstacle difficulty rating as the IV (9 levels) revealed a significant effect for obstacles. However, the two-tailed paired samples t-tests of adjacent

means were not significant. Instead, a more complex pattern was found than in the prior analyses. In general, obstacles that are three steps apart are significantly different from each other. Specifically, the mean rating for privacy issues does not significantly differ from that of being removed from home or cost of treatment services, but it is significantly higher than the mean rating of all the remaining obstacles. Similarly, the mean rating given to concerns over the travel distance to treatment services does not significantly differ from that of obtaining parental permission or services being provided at inconvenient times, but it is significantly lower than all the rest of the obstacles.

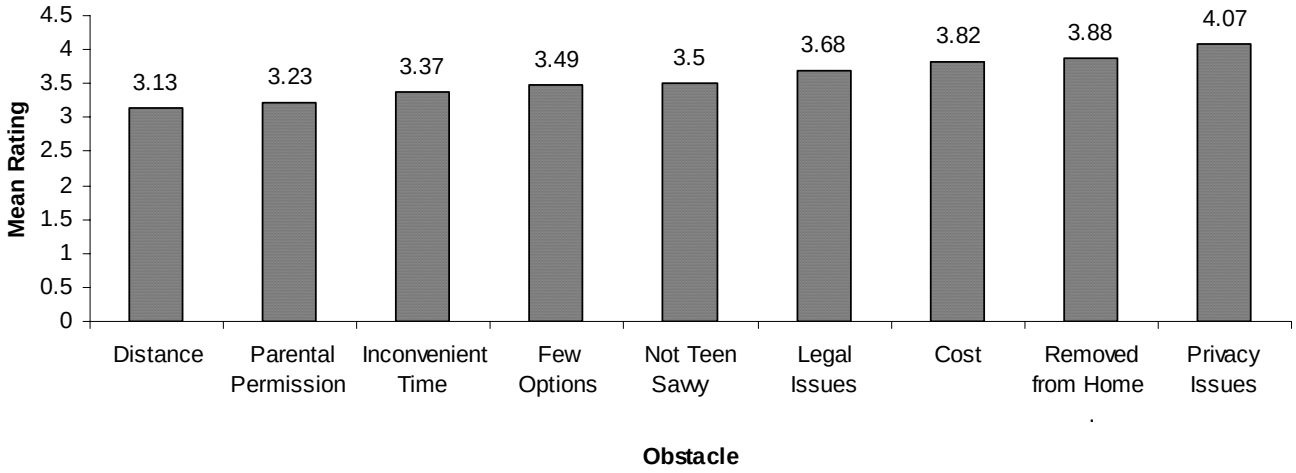

Figure 4. Mean rating (on a scale of 1-5) given by the combined 9th and 12th grade sample for the difficulty for a person their age of overcoming each obstacle in obtaining substance use treatment.

Note. Distance = travel distance to treatment services; Parental Permission = obtaining parental permission; Inconvenient Time = treatment services being held at inconvenient times; Few Options = low number of treatment service options available; Not Teen Savvy = treatment providers having a poor understanding of teen issues; Legal Issues = legal repercussions associated with seeking treatment; Cost = cost of treatment services; Removed from Home = the possibility of being removed from home for treatment, Privacy Issues = difficulties associated with maintaining privacy and confidentiality .

MANOVA analyses using grade and sex as the IVs and the mean difficulty rating for each obstacle as the DVs revealed a significant multivariate effect for grade. It should be noted that the assumption of homogeneity of error variances was violated for this test, however the result was still significant at the more stringent .01 level, which supports its validity (Tabachnick & Fidell, 2001). The between subjects results of this MANOVA indicated specifically that 9th graders believed their peers faced significantly more difficulty overcoming the obstacles of travel distance, having to obtain parental permission, having few treatment options to choose from, helpers having a poor understanding of teen issues, and legal difficulties involved with obtaining treatment, than did 12th graders (see Table 8). There was also a significant interaction between sex and grade on the obstacles of cost of treatment ($p = .003$, partial $\eta^2 = .103$) and low availability of treatment options ($p = .020$, partial $\eta^2 = .065$). Ninth grade males were significantly more worried about these two obstacles than 12th grade males.

Table 8

Summary of Significant Differences Between 9th and 12th Graders on Perceptions of Obstacle Difficulty

Obstacle	*p*	Partial η^2
Travel distance	.000	.049
Obtaining parental permission	.001	.118
Few treatment options	.002	.116
Helper's poor understanding of teen issues	.034	.054
Legal problems	.044	.049

The mean ratings of all the obstacles were then added together into a single composite obstacle-difficulty score and this score was used as the DV and in an ANOVA with sex, and grade as the IVs. It was discovered that there was a significant

difference between 9th and 12th graders overall (p = .004, partial η^2 = .092). Ninth graders perceived significantly more difficulty for their peers in overcoming obstacles in general (M = 34.42) than did 12th graders (M = 30.98). Following the trend above, a significant interaction was also found in which 9th grade males believed their peers faced significantly more difficulty overcoming obstacles to obtaining treatment in general than did 12th grade males (p = .015, partial η^2 = .066).

A MANOVA analysis using only SUSS category as the IV and the individual mean obstacle difficulty ratings as the DVs also revealed that those in the disease SUSS category were significantly less likely than those in the psychosocial category to be concerned that treatment providers did not have a good understanding of teenagers (p = .033, partial η^2 = .077). Participants in the psychosocial category were also significantly more likely than those in the eclectic category to be concerned with the possibility of being removed from their homes (p = .009, partial η^2 =.106).

Urban vs. Rural

It was also expected that rural adolescents would perceive themselves at a significant disadvantage to urban adolescents in surmounting obstacles to obtaining substance treatment. This was universally supported by the fact that the largest percentage of respondents (33%) indicated the highest level of agreement with the statement "It is more difficult for adolescents in rural than in urban areas to get substance abuse treatment for themselves." The mean agreement rating for all participants was M = 3.72, with 61% indicating a rating above the neutral level of 3. Another 26% indicated an agreement level of 3, for a total of 87% of participants who agreed at a level of 3 or more. ANOVA analyses first using sex and grade, as the IVs, and then using only SUSS category as the

IV showed no significant differences between the mean agreement rating with this statement for any group.

Rural Preparedness

Finally, it was hypothesized that rural adolescents would have a general lack of knowledge about available treatment options compared to the actual number of options in their community. Some interesting results were discovered. Universally, rural adolescents rated themselves as relatively prepared to give advice to peers who asked for help with substance use problems. The two ANOVAs, one using sex and grade as the IVs, and the other using only SUSS category as the IV, and the mean rating of preparedness as the DV, found no significant differences between any groups on their beliefs about their own preparedness to give such advice. The mean rating of preparedness for the entire sample was 3.40 of 5, with 45% feeling more than neutrally prepared to help others. Another 35% felt at least equally prepared as unprepared, leaving only 16% who felt unprepared (scores of 1 or 2).

The majority of participants (65%) also reported having experienced drug and alcohol education in the past that gave them knowledge of what to do if they already had, or knew someone their own age who had a drug or alcohol problem. Neither ANOVA using sex and grade as IVs, nor ANOVA using only SUSS as the IV found significant differences between groups on their beliefs about their past drug and alcohol education.

However, familiarity with different kinds of treatment resources was relatively low, with means ranging from 1.71 for Antabuse to 3.57 for nicotine patches or gum (see Figure 5). Neither the MANOVA using sex and grade as the IVs, nor the one using only SUSS category as the IV and the mean ratings of familiarity with each type of resource as

the DVs found significant multivariate differences between any of the groups on their familiarity with these resources. Overall then, according to a univariate one-way repeated measures analysis that was run using mean resource familiarity rating as the IV (8 levels), the two-tailed paired samples t-tests revealed that rural adolescents were most aware of nicotine patches or gum, rehabilitation, therapy or counseling, and support groups as treatments for substance abuse. They were significantly less familiar at the $p = .000$ level with the resources of on-line support groups, detoxification, Methadone, and Antabuse.

Despite finding no significant multivariate effects, the between subjects results of the MANOVA analyses using sex, and grade as the IVs indicated that 12th graders were significantly more aware of detoxification than 9th graders ($p = .038$, partial $\eta^2 = .054$).

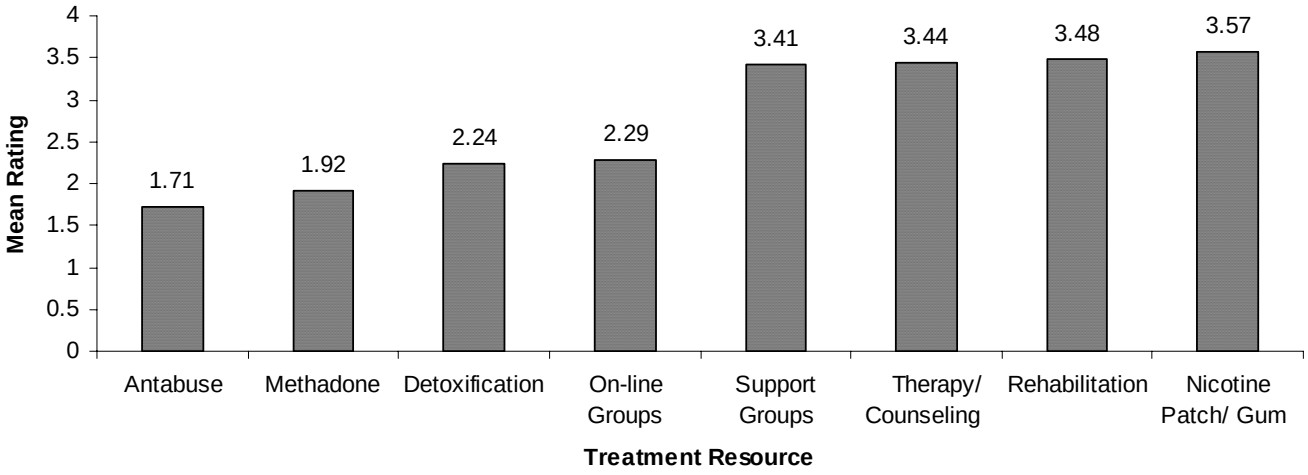

Figure 5. Mean rating (on a scale of 1-5) given by the combined 9th and 12th grade sample for familiarity with each substance use treatment resource.

MANOVA using only SUSS category as the IV and the mean ratings of familiarity with each type of resource as the DVs further found that participants who believed in the

psychosocial model were significantly more likely than eclectic participants to be familiar with the nicotine patch or gum (p = .005, partial η^2 = .147).

Although participants rated treatment centers as their resource of choice (see Figure 3), the majority of participants (49.2% of 12th and 84.6% of 9th graders) could not list even one substance use treatment center in their area. This is quite a discrepancy, as at least five treatment centers are listed in Indiana County, several of which have multiple branch offices (Roehrich et al., 2006). Although MANOVA analyses using sex and grade as IVs found 12th graders to be significantly more likely to know of centers in their area (p = .002, partial η^2 = .106) the average number of centers listed by them was still only .56. However, this is still a significant improvement over 9th graders, as 45.9% of 12th graders managed to list at least one center, compared to only 15.4% of 9th graders who did so. There were no significant differences in number of treatment centers listed found between different SUSS categories when an ANOVA was performed with only SUSS category as the IV.

The treatment center most likely to be listed by participants was The Open Door (33% of 12th and 12% of 9th graders) with ARIN and Discovery House occasionally mentioned (3-4% of 12th graders per center). See Table 9 (Appendix H) for a list of the responses given by participants to POSTS Item 22, "List the names of all the substance treatment centers that you know of in your area." Please note that responses reported in Table 9 but deemed by the author to represent non-treatment centers were not included in the percentages listed above.

CHAPTER IV

DISCUSSION

Conclusions and Recommendations

Despite the fact that not every hypothesis postulated by the author was supported, this exploratory study still lends further evidence to trends observed in previous literature regarding adolescent perceptions of substance use and help-seeking. More specifically, the results have implications for further research in the area of rural and adolescent substance use and treatment issues. There are also findings that could benefit drug and alcohol education in the participant school and could possibly be generalized to other rural school districts.

One surprising finding was the lack of significant difference in responses to POSTS Forms A and B, based on the sex differences of the vignette characters therein. It was expected that male and female responders might relate differently to vignette characters of the same or opposite sex. Based on previous literature (Blume, 1990), it was also expected that the responders might perceive substance use and treatment as differently appropriate for male and female vignette characters. However, differences in responses by sex of the vignette character were weak and inconsistent suggesting that this variable did not play a large role in participants' ratings. Furthermore, sex was universally rated by rural adolescent participants as the least important factor in determining substance use problem seriousness, with a mean rating of only 1.61 (see Figure 2). This finding may be a factor of either age, rurality, or a combination of the two. It may be that the upcoming generation of adolescents does not share sex biases in their perceptions of drug users and treatments with the previous generations. Sloboda

(2002) also observes that variables such as ethnicity and sex, that represent significant differences in drug and alcohol use in urban adolescents, are less powerful indicators among rural populations. Instead, rural youth are using substances at a more comparable rate across demographic factors. Therefore, it may also be that the more equal rate at which rural youth encounter substance use among male and female peers has created their lack of differentiated perceptions.

Though it was expected that rural adolescents would view the use of alcohol differently than that of other drugs, it was surprising that results indicated an earlier receptiveness to professional treatment for alcohol use over other drug use (see Tables 4 & 5). Two different 12th graders made the following comments: "I believe that if alcoholism runs in your family, kids are more likely to be alcoholic when they grow up. For drug abuse I think it is totally different," and "You must separate the alcoholic, addict conglomerate." These statements may reveal some of the thought process behind the differences observed. It may be that rural adolescents have come to think of alcoholism as a genetic disease that is amenable to prevention and early medical treatment, however they do not see other drug use in a similar way. As is highlighted in their responses about obstacles to treatment utilization and their choice of help resources (see Figures 3 & 4), it may also be that higher perceived risk of punishment associated with substances other than alcohol is preventing rural adolescents from recommending professional treatment sooner.

As expected, there was a significantly greater likelihood for younger participants to tolerate higher levels of substance use than older participants before recommending professional treatment (see Tables 4 & 5). This may be due to factors such as the

increased experience and maturity of older adolescents, as suggested in previous literature (Melnick, 1997; Sears, 2004; Windle et al., 1991). However, it may also be an early indicator of the changing tide that suggests the younger rural adolescents do not perceive the same risk associated with substance use as the older adolescents. Slightly over 25% of all participants indicated that they would not consider professional help for drug or alcohol use until the dependence level was reached. This is similar to the percentage of adolescents in the study by Windle et al. (1991) who indicated that they would not seek any help resources. Again, similar to his findings, the majority of this 25% were younger adolescents. Unfortunately, procedures used in this study to assure anonymity made it impossible to identify this 25% of participants for follow-up research. However, future research should be done with a particular focus toward these especially reluctant rural adolescents. This could allow for a better understanding of the reasons for that group's aversion to help-seeking and how they can be better served.

One recommendation for educators suggested by the results of this study, is to increase rural adolescents' ability to recognize the different levels of substance use problems in peers and themselves. Though participants made specific recommendations about the level of substance use at which professional help was needed, they had some difficulty recognizing these levels in the survey vignettes. This was particularly true for the grayer areas of substance problem development, such as the pre-abuse and abuse levels. This was shown by the fact that there were no significant differences found between the mean substance use problem seriousness ratings participants gave to the vignettes meant to depict these two levels (see Table 2 and Figure 1). This finding throws

into doubt the ability of rural adolescents to recognize substance problems (especially less extreme problems) in real-life scenarios.

It may be that rural adolescents do not possess a heuristic similar to MacDonald's (1984) or Comerci's (1985) which identifies several factors, (including substance type, amount, setting of use, sex and age of user, and life problems caused by use) that indicate the severity of a substance use problem. Instead, it appeared that the type of substance being used, closely followed by the amount of substance being used, and the amount of trouble that substance use caused in the life of the user overwhelmed other problem indicators in the minds of these rural adolescents (see Figure 2). The relative amount of importance allotted to this third factor also suggests that legality of the substance in question was also correlated with problem seriousness ratings. Specifically, despite the lack of significant differences between the mid-level substance problem seriousness ratings, use of methamphetamine at the dependence level was clearly seen by participants as a serious problem, whereas tobacco use at the experimentation level was of least concern. The confusion of the participants and the importance of the type of drug were observed most strongly when marijuana at the abuse level and alcohol at the pre-abuse level received very similar ratings of seriousness.

A trend observed in the Monitoring the Future survey data showed that the risk associated with a particular substance was the best predictor of that substance's usage rate fluctuations over the years. This poses an interesting insight into the thinking of rural adolescents, as tobacco and alcohol result in statistically more deaths and health problems each year than methamphetamine or marijuana (Nutt, King, Saulsbury, & Blakemore, 2007). However, the former two substances were seen by the rural adolescent participants

as equally or less serious than the latter. Perhaps making students better aware of the risk associated with different substances could help them to recognize levels of substance problems in peers and themselves. It is also clear that more than just the negative medical effects of substances need to be shared with students, as legal and quality-of-life implications may have a greater impact because participant responses suggested that these were important issues to them.

The hypothesis that rural adolescent participants would choose non-professional over professional sources of help was not entirely supported. However, a different and clinically interesting trend was observed. Participants recommend resources with higher possibilities of anonymity, such as treatment centers, support groups, and the internet most often (see Figure 3). As expected from prior research (Windle et al., 1991) the advice of a friend was also favored over going to a parent for assistance. Interestingly, significantly more so than going to their own parents for help, but asking assistance from the vignette character's parents was rated more similarly to going to a friend. Also, unlike that prior research in which parents were the lowest ranked resource, in this study school counselors or psychologists, religious leaders, and teachers were all ranked lower than the vignette character's parents, and significantly lower than the participant's own parents. It seems this finding may be due to the link that the lowest ranked resources have with academia, or other situations in which privacy is subjugated to punishment. It seems that rural adolescents do not feel safe and assured of their confidentiality in their schools, religious institutions, and possibly even within their own families. One 12th grader made this comment which may shed further light on the thinking of rural adolescents, "if the

person [with a substance problem] really was your friend you wouldn't go tell a teacher right away, you'd try other ways to keep them out of more trouble."

When looking at the obstacles to seeking substance use treatment faced by rural adolescents, results show that although they considered all of the obstacles to be difficult to overcome, rural adolescents are primarily concerned about their privacy and possible legal punishment (see Figure 3). Statements like the one by the student above, suggest that rural adolescents perceive negative consequences will follow from others (particularly familiar adults) finding out about their substance use issues. The legal implications associated with school-based helpers may be what put them lower on the rural adolescents' list of helpers than parents, whose punishments are often not as severe. This phenomenon may also be due to the greater privacy within families, as opposed to within the school system. These factors may be the reasons that rural adolescents are least likely to go to teachers and school counselors or psychologists for help. These results indicate a need for adolescents to be educated about their rights to confidentiality. They should be told what to expect from an outside treatment center in regard to privacy and about school policies on the same issue. Policy makers may wish to examine school codes to be sure that unnecessary punitive action is not preventing rural adolescents from seeking needed treatment from what may be the only easily accessible place to get it.

One of the most interesting results was the unique perspective rural adolescent responders had on their ability to assist a peer who asked for advice in dealing with a substance use problem. The majority of participants reported that they felt more prepared than not to advise a peer, and that prior school-based education gave them useful information on this topic. However, as mentioned above, school-based helpers were the

least likely resource to be utilized, and rural adolescents reported that they were at a disadvantage to urban adolescents in their ability to access treatment resources. In addition, awareness of local treatment centers and familiarity with types of treatment were relatively low.

Further research should be done in the future to examine the factors that influence rural adolescents' perceptions of their ability to assist peers with substance use problems. It appears that the traditional factors examined here do not account for feelings of preparedness. For now, it is important for educators to note that rural adolescents are likely to be advising and receiving advice from their peers, who may feel prepared to give advice, but actually possess little knowledge about safe and useful professional resources.

These findings, along with findings about the privacy concerns and the reservations toward utilizing school-based help resources held by rural adolescents, emphasize the need for educators to make these adolescents more aware of outside resources. If this does not occur, the alternative may be that rural adolescents will choose not to seek help for substance use problems at all. Implications are that drug and alcohol education for rural adolescents should review a wider variety of treatment resources, especially those not sold over the counter, or commonly associated with academia. Rural adolescents were significantly unfamiliar with more serious, medically related resources such as detoxification, methadone, and Antabuse (see Figure 5). This may be a relic of society's fear that awareness of such resources will increase substance use. It may also be due to the misconception mentioned by Schoeneberger et al. (2006) and Sloboda (2002) that rural adolescents are not involved with such extreme substance use and would not need such serious medical interventions. Statistics imply that this is far from true and

adolescents need to be made aware of these types of treatment. Education about the existence of on-line resources, which rural adolescent were also significantly unaware of, might also be especially helpful to these adolescents, whose ability to travel is limited by both their age and location, and who express high concern about privacy and confidentiality.

Results did indicate that experiences gained between 9th and 12th grade likely made participants more aware of substance use help resources, as shown by the significant increase in the total number of treatment centers listed by 12th graders and the greater likelihood of familiarity with some treatment resources. It is likely that one type of experience which added to this difference is school-based drug and alcohol education, as 65% of participants reported having received helpful information of this type. However, despite these significant increases with grade, overall participant awareness of treatment resources was relatively low. It also appears that adolescents may be primarily familiar with substance treatment centers whose staff are directly involved with school-based education. This finding is encouraging as to the success of such programming, providing evidence that students are remembering at least the resources they have direct contact with through this programming. However, it also indicates that students would benefit from a wider variety of speakers from nearby treatment centers and resources, and that broader awareness of nearby centers should be emphasized in earlier programming.

Limitations

Finally, despite many interesting results, this study did suffer from some limitations. Perhaps the most predominant limitation was lower than desired power. Power is defined as the ability to detect an effect if there is one, (Levine & Hullett, 2002).

In other words, it is the probability of correctly rejecting the null hypothesis (Howell, 2002), and can be understood as 1-β (Cohen 1992). Power ranges from 0-1, where .80 would mean a 20% chance of failing to detect an effect that is there. Typically, a power of .08 is desired. Sample size is one factor that researchers often attempt to control in order to increase power. In this study, the fact that only one school was available to participate eliminated the utility of an a priori power analysis. Because sample size was limited by the number of students at the participating school, it was not able to be manipulated by the author. Therefore, it was impossible to plan for a study that would have a power of .08 throughout. This means that there is a higher than 20% likelihood for many of the analyses in this study that significant differences may actually be present though none were detected. Future studies with larger sample sizes should be conducted to explore this possibility.

The purpose of measuring effect size is to determine the relative importance of statistically significant effects, by judging the size of those effects. For retrospective consideration of the importance of an effect, effect size measures are often based on the degree of association between an effect and a dependent variable, and give the proportion of variance accounted for (Levine & Hullett, 2002). The partial η^2 statistic which is provided by SPSS and used in this dissertation, is one such measure of effect size. It is calculated in a slightly different way than η^2 so as to eliminate dependence on the number of factors there are. Partial η^2 is defined as "the proportion of total variation attributable to the factor, partialling out (excluding) other factors from the total nonerror variation (Pierce, Block, & Aguinis, 2004, p.917). Basically, it gives the contribution of each factor or interaction as if it were the only variable. However, its limitation is that it often

overestimates the strength of association between the independent and dependent variable (on average from 78-143%), especially when total sample size is small. This occurs in all situations other than in a one-way ANOVA, or a multifactor ANOVA that has only one nonzero source of variance. Due to this overestimation, partial η^2 may also create situations where a group of factors equal to more that 100% of the total variance.

Though most effect sizes found in this study were small or moderate, the importance of these findings is still significant as this study was exploratory in nature. As stated by Prentice & Miller (1992) small effect sizes can still be important as they may have enormous practical implications, may accumulate over time into larger effects, or may be theoretically important. The significant effects found here can be used to inform the focus of future studies, which will aid helping professionals in understanding and serving the rural adolescent population.

The most apparent limitations due to inadequate power were seen in regard to the small and uneven number of participants of each sex and grade that fell into each SUSS category (see Table 3). This limited the analyses of these groups and forced the author away from using the completely crossed analysis with sex and grade that was intended. Therefore the analysis focused entirely on main effects, as the power to detect interactions was inadequate. Due to the small and uneven cell size, significant results involving SUSS category were lacking. Only the most significant and powerful results are reported, but they should be interpreted with caution. This also means that results, which may have been significant if examined in a larger sample, were also excluded. Future research with larger samples may be able to show the influence that sex and grade

have on beliefs about substance use (SUSS category), and how all three factors affect perceptions of substance treatment.

According to prior research, it was expected that older adolescents (12th graders) would be more familiar with, and inclined to utilize, treatment resources, as well as hold different perceptions of substance use and treatment than younger adolescents (9th graders). Though there was a significant finding for the perception of obstacle difficulty between 9th and 12th graders, several limitations other than power inadequacy may have led to the surprising lack of findings in other areas. One possibility is that the average age difference between 9th (14.79 years) and 12th graders (17.55 years) may not have been great enough to show differences in response patterns. Furthermore, the 9th graders in this study may not have been representative of the "younger adolescents" mentioned in earlier studies by Sears (2004) and Windle et al., (1991) as those studies included participants starting at 12 years of age. Another possibility involved the low number of 9th grade versus 12th grade participants (40.63% versus 62.87%). It is possible that the 9th grade sample was not representative of the typical 9th grader. Those students who are less likely to seek help for substance problems or less likely to view substance use as a problem may have chosen not to participate. As Frissell et al. (2004) mentions, this effect may have been more pronounced in the 9th grade sample due to the larger number of students who required parental consent to participate. It is also possible that the parents of 9th graders were more concerned about this sensitive topic, and less inclined to allow their children to participate. Finally, the number of low SES 9th and 12th graders (as defined by qualifying for free or reduced lunch) was also quite different (see Table 1). Therefore,

some differences in the study results between grades (or lack thereof) may be due to differences in SES, rather than other factors such as maturity and experience.

Another limitation is the lack of information obtained about the personal drug use and help-seeking behavior of the rural adolescent sample. This information was not requested due to research that shows doing so increases socially desirable responding (Barter & Renold, 1999). The authors were also concerned that asking personal questions about this sensitive topic would reduce the number of willing participants. Thirdly, the purpose of this study was to examine the perceptions that rural adolescents hold about the accessibility and availability of substance treatment resources to themselves and peers. Knowledge of personal drug use history was not required to examine these perceptions. However, it is likely that personal drug use and past help-seeking experiences would have an effect on these perceptions. Future research may wish to separate groups of rural adolescents further, into those who have and have not had experience in these areas, in order to examine perceptions further.

Further limiting the study, the POSTS, minus the SUSS, was a new measure developed by the author and had not been previously proven effective at measuring the perceptions about substance use and treatment that the study wished to explore. Despite design being informed by research and piloting, it is possible that the vignettes and questions on the POSTS were interpreted differently by the rural adolescent participants than was intended. This misinterpretation could have lead to some of the significant findings, or lack thereof. Future research could be done on the psychometrics of the POSTS to ensure its validity and reliability.

Finally, an urban comparison group was not used in this study. There is a strong need for future research to directly compare urban and rural populations on many issues, including those related to substance abuse. However, given the differences in SES, obstacles to attaining treatment, and lack of treatment availability, comparing rural to urban populations is a bit like comparing apples and oranges. At this time, so little information has been gathered about rural populations that exploratory studies such as this one are still of value. Presently, this dissertation represents the only known study of rural Pennsylvanian adolescent perceptions regarding substance problems and their treatment. It is hoped that the results may inspire other researchers to focus on this underserved population.

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Appendix A: Survey-Form A

Directions: Please read the following stories, and then circle the number that best describes your opinion.

Imagine a close female friend in your grade tells you that she has a problem with alcohol. She started just drinking at parties, but now she hides alcohol in her room and drinks alone a few times a week when her parents aren't home. It was fun to drink with her friends at parties, but sneaking around to drink makes her feel like a loser. She's also had to lie to her parents to cover up her unusual behavior. Your friend tells you that she wants to get help for the problem but doesn't know what to do.

How serious do you think the substance problem is for the person in this story?

(not) 1—2—3—4—5—6—7—8—9—10(very)

How likely would you be to do each of following things to help the person

in this story if she asked you for help with her substance problem?

Ask a friend who has gone though a similar problem for advice	**(not) 1—2—3—4—5 (very)**
Ask your own parents for advice	**(not) 1—2—3—4—5 (very)**
Ask a teacher for advice	**(not) 1—2—3—4—5 (very)**
Ask a school counselor/psychologist for advice	**(not) 1—2—3—4—5 (very)**
Give the person the contact information for a drug and alcohol treatment center in your area.	**(not) 1—2—3—4—5 (very)**
Tell the person to talk to their parents	**(not) 1—2—3—4—5 (very)**
Tell the person to contact a support group like Alcoholics Anonymous or Narcotics Anonymous.	**(not) 1—2—3—4—5 (very)**
Tell the person to go on-line to find support groups and information about what kind of help she needs.	**(not) 1—2—3—4—5 (very)**
Ask a religious leader for advice	**(not) 1—2—3—4—5 (very)**

How important to you were the following factors in determining the seriousness of this person's substance problem?

Whether the person was male or female	**(not) 1—2—3—4—5 (very)**
Age of the person	**(not) 1—2—3—4—5 (very)**
Amount of the substance the person was using	**(not) 1—2—3—4—5 (very)**
Type of substance the person was using	**(not) 1—2—3—4—5 (very)**
Amount of trouble that using the substance was causing	**(not) 1—2—3—4—5 (very)**

Imagine a guy in your group of friends has recently started smoking cigarettes. He first tried it when he was hanging out after school with you and your friends. Some of the other kids were smoking, and he thought he could just have one cigarette every day after school to relax together with everyone before going home. The problem is that he started craving cigarettes at other times. He has not yet smoked at other times, but he's upset because he thought he could control his smoking and is having trouble doing so. He asks for your advice on what to do.

How serious do you think the substance problem is for the person in this story?

(not) 1—2—3—4—5—6—7—8—9—10(very)

How likely would you be to do each of following things to help the person

in this story if he asked you for help with his substance problem?

Ask a friend who has gone though a similar problem for advice	**(not) 1—2—3—4—5 (very)**
Ask your own parents for advice	**(not) 1—2—3—4—5 (very)**
Ask a teacher for advice	**(not) 1—2—3—4—5 (very)**
Ask a school counselor/psychologist for advice	**(not) 1—2—3—4—5 (very)**
Give the person the contact information for a drug and alcohol treatment center in your area.	**(not) 1—2—3—4—5 (very)**
Tell the person to talk to their parents	**(not) 1—2—3—4—5 (very)**
Tell the person to contact a support group like Alcoholics Anonymous or Narcotics Anonymous.	**(not) 1—2—3—4—5 (very)**
Tell the person to go on-line to find support groups and information about what kind of help he needs.	**(not) 1—2—3—4—5 (very)**
Ask a religious leader for advice	**(not) 1—2—3—4—5 (very)**

How important to you were the following factors in determining the seriousness of this person's substance problem?

Whether the person was male or female	**(not) 1—2—3—4—5 (very)**
Age of the person	**(not) 1—2—3—4—5 (very)**
Amount of the substance the person was using	**(not) 1—2—3—4—5 (very)**
Type of substance the person was using	**(not) 1—2—3—4—5 (very)**
Amount of trouble that using the substance was causing	**(not) 1—2—3—4—5 (very)**

Imagine a boy that you were friends with has been expelled from school. He was caught buying methamphetamine (meth) from another kid in the cafeteria. You know that he has been taking it regularly for a while and has recently begun to take more of it. In fact, he recently asked you for money because he didn't have enough to buy the meth he wanted. You know that he has also been caught stealing money from his mom's purse to buy drugs with. He has been in trouble at school a lot lately and his parents are extremely upset with him. You see him in the neighborhood and he tells you he hates to be in so much trouble, but he can't stop using meth even if it means getting sent to juvenile detention. He doesn't know what to do.

How serious do you think the substance problem is for the person in this story?

(not) 1—2—3—4—5—6—7—8—9—10(very)

How likely would you be to do each of following things to help the person

in this story if he asked you for help with his substance problem?

Ask a friend who has gone though a similar problem for advice	**(not) 1—2—3—4—5 (very)**
Ask your own parents for advice	**(not) 1—2—3—4—5 (very)**
Ask a teacher for advice	**(not) 1—2—3—4—5 (very)**
Ask a school counselor/psychologist for advice	**(not) 1—2—3—4—5 (very)**
Give the person the contact information for a drug and alcohol treatment center in your area.	**(not) 1—2—3—4—5 (very)**
Tell the person to talk to their parents	**(not) 1—2—3—4—5 (very)**
Tell the person to contact a support group like Alcoholics Anonymous or Narcotics Anonymous.	**(not) 1—2—3—4—5 (very)**
Tell the person to go on-line to find support groups and information about what kind of help he needs.	**(not) 1—2—3—4—5 (very)**
Ask a religious leader for advice	**(not) 1—2—3—4—5 (very)**

How important to you were the following factors in determining the seriousness of this person's substance problem?

Whether the person was male or female	**(not) 1—2—3—4—5 (very)**
Age of the person	**(not) 1—2—3—4—5 (very)**
Amount of the substance the person was using	**(not) 1—2—3—4—5 (very)**
Type of substance the person was using	**(not) 1—2—3—4—5 (very)**
Amount of trouble that using the substance was causing	**(not) 1—2—3—4—5 (very)**

Imagine a girl on your sports team just got suspended for smoking pot. This is the second time the coach has caught her being high during a game, but you have noticed that she is high at practice at least once a week. You have also seen her smoking pot with some other kids in the locker room before practice. The girl tells you that she likes smoking pot and does so a few times a week, but she also doesn't want to get kicked off the team. You know that if she gets caught again she will be kicked off. She doesn't know how to solve her problem.

How serious do you think the substance problem is for the person in this story?

(not) 1—2—3—4—5—6—7—8—9—10(very)

How likely would you be to do each of following things to help the person

in this story if she asked you for help with her substance problem?

Ask a friend who has gone though a similar problem for advice	**(not) 1—2—3—4—5 (very)**
Ask your own parents for advice	**(not) 1—2—3—4—5 (very)**
Ask a teacher for advice	**(not) 1—2—3—4—5 (very)**
Ask a school counselor/psychologist for advice	**(not) 1—2—3—4—5 (very)**
Give the person the contact information for a drug and alcohol treatment center in your area.	**(not) 1—2—3—4—5 (very)**
Tell the person to talk to their parents	**(not) 1—2—3—4—5 (very)**
Tell the person to contact a support group like Alcoholics Anonymous or Narcotics Anonymous.	**(not) 1—2—3—4—5 (very)**
Tell the person to go on-line to find support groups and information about what kind of help she needs.	**(not) 1—2—3—4—5 (very)**
Ask a religious leader for advice	**(not) 1—2—3—4—5 (very)**

How important to you were the following factors in determining the seriousness of this person's substance problem?

Whether the person was male or female	**(not) 1—2—3—4—5 (very)**
Age of the person	**(not) 1—2—3—4—5 (very)**
Amount of the substance the person was using	**(not) 1—2—3—4—5 (very)**
Type of substance the person was using	**(not) 1—2—3—4—5 (very)**
Amount of trouble that using the substance was causing	**(not) 1—2—3—4—5 (very)**
If they were to ask you right now, how prepared would you feel to give advice to the people from these stories about how to get substance treatment ?	**(not) 1—2—3—4—5 (very)**

How difficult to overcome are the following obstacles to someone your age getting substance treatment for themselves.	
Travel distance to the nearest substance treatment center	**(not) 1—2—3—4—5 (very)**
Cost for substance treatment services	**(not) 1—2—3—4—5 (very)**
Possibility that others would find out that the person was in substance treatment	**(not) 1—2—3—4—5 (very)**
Getting parental permission	**(not) 1—2—3—4—5 (very)**
Low number of treatment options in your area	**(not) 1—2—3—4—5 (very)**
Difficulty finding treatment for adolescents (professionals who understand teenagers)	**(not) 1—2—3—4—5 (very)**
Finding treatment that is at a convenient time	**(not) 1—2—3—4—5 (very)**
Possibility of legal problems if treatment is sought	**(not) 1—2—3—4—5 (very)**
Possibility of being removed from home for treatment	**(not) 1—2—3—4—5 (very)**
How much do you agree with the statement "It is more difficult for adolescents in rural than in urban areas to get substance abuse treatment for themselves."	**(not) 1—2—3—4—5 (very)**
How familiar are you with each of the following types of treatment for substance problems?	
Therapy/counseling	**(not) 1—2—3—4—5 (very)**
Detoxification (Detox)	**(not) 1—2—3—4—5 (very)**
Support groups like Alcoholics Anonymous and Narcotics Anonymous	**(not) 1—2—3—4—5 (very)**
On-line support groups	**(not) 1—2—3—4—5 (very)**
Methadone (for Heroin use)	**(not) 1—2—3—4—5 (very)**
Nicotine patches/gum	**(not) 1—2—3—4—5 (very)**
Antabuse (medicine that makes someone sick if they drink alcohol after taking it)	**(not) 1—2—3—4—5 (very)**
Rehabilitation centers (Rehab)	**(not) 1—2—3—4—5 (very)**

Directions: For each of the following statements rate the extent to which you agree or disagree with it by circling the number that best describes your opinion.

Every alcoholic and addict must accept that he or she is powerless over alcohol and drugs, and can never drink or use again. (**disagree)1—2—3—4—5(agree)**

Alcoholics and drug addicts have a distinct set of personality traits by which they can be identified. (example: uncaring, selfish, nervous, etc.) (**disagree)1—2—3—4—5(agree)**

Every Alcoholic or addict is one drink or one hit away from total relapse (slipping back into addiction). (**disagree)1—2—3—4—5(agree)**

The society or culture in which one grows up has a significant influence on whether or not one becomes an alcoholic or addict. (**disagree)1—2—3—4—5(agree)**

If an alcoholic or addict isn't motivated, there is not much you can do to help him or her. (**disagree)1—2—3—4—5(agree)**

People can be <u>born</u> alcoholics or addicts. (**disagree)1—2—3—4—5(agree)**

A person's environment plays an important role in determining whether he or she develops alcoholism or drug addiction. (**disagree)1—2—3—4—5(agree)**

Once a person is an alcoholic or addict, he or she will always be an alcoholic or addict. (**disagree)1—2—3—4—5(agree)**

Alcoholism and drug addiction are caused, in part, by growing up in a dysfunctional family (example: broken home, abusive home, etc.) (**disagree)1—2—3—4—5(agree)**

Usually if alcoholics and addicts fail to recover in support groups such as Alcoholics Anonymous /Narcotics Anonymous or in treatment, it is because they are unmotivated and in denial. (**disagree)1—2—3—4—5(agree)**

If an alcoholic or addict is sober or straight for five years, and then starts drinking or using drugs again, he or she is right back where he or she left off in the development of the disease. (**disagree)1—2—3—4—5(agree)**

There are "problem drinkers" who have significant problems with alcohol, but who are not alcoholic. (**disagree)1—2—3—4—5(agree)**

Alcoholism and drug addiction are caused, in part, by what one learns about alcohol and drugs and the drinking/drug use patterns of one's family and friends. (**disagree)1—2—3—4—5(agree)**

A person can develop alcoholism or drug addiction because of underlying psychological problems. (example: depression, anxiety, etc.) (**disagree)1—2—3—4—5(agree)**

Denial (not admitting to yourself that you have a problem) is part of the personality of the alcoholic or drug addict. (**disagree)1—2—3—4—5(agree)**

Alcoholics and drug addicts who are forced into treatment do just as well as those who come into treatment on their own. (**disagree)1—2—3—4—5(agree)**

Except for detoxification (medical treatment which removes

all illegal drugs or alcohol from the body) , alcoholics and addicts

should never be given psychiatric medications such as anti-depressants, lithium, or anti-anxiety drugs. (**disagree)1—2—3—4—5(agree)**

There are only two possibilities for an alcoholic or drug addict—permanent abstinence (never using drugs or alcohol again) or death. (**disagree)1—2—3—4—5(agree)**

If an alcoholic has a drink, or if an addict takes a hit, they lose control and are unable to stop from getting drunk or high. (**disagree)1—2—3—4—5(agree)**

Directions: Answer the following opinion questions.

The following are descriptions of different amounts of drug use. Please mark the first one that describes the amount at which you believe a person has a substance problem that needs **professional** help.

__Occasional drug use, usually in a social or recreational situation
__More frequent drug use that has caused some minor negative consequences for the person (i.e. trouble with parents)
__Regular frequent use of drugs with frequent negative consequences (i.e. several school suspensions, having no friends)
__Continued regular drug use despite severe negative consequences (i.e. expelled from school, arrested) tolerance, and trading or selling important items to get more drugs.

The following are descriptions of different amounts of alcohol use. Please mark the first one that describes the amounts at which you believe a person has a substance problem that needs **professional** help.

__Occasional alcohol use, usually in a social or recreational situation
__More frequent alcohol use that has caused some minor negative consequences for the person (i.e. trouble with parents, DUI)
__Regular frequent use of alcohol with frequent negative consequences (i.e. several school suspensions, lost licensee)
__Continued regular alcohol use despite severe negative consequences (i.e. expelled from school, arrested) tolerance, and trading or selling important items to get more alcohol.

Have you ever lived in an urban area/large city? (examples of urban areas are Pittsburgh, New York, Chicago, Philadelphia) **Y/N**

If so, for about how long**?**_____

List the names of all the substance treatment centers that you know of in your area.

Based on what you've learned in the drug and alcohol education that you have had in the past, do you believe that this education teaches students what to do if they already have, or know someone their own age who has, a drug or alcohol problem? **Y/N**

What is your age?_____What grade are you in?_____ Are you male or female?____

Please use the space below to provide any comments you wish to make about the survey.

THANK YOU for filling out this survey!
Your participation is appreciated.

Appendix B: Survey-Form B

Directions: Please read the following stories, and then circle the number that best describes your opinion.

Imagine a close male friend in your grade tells you that he has a problem with alcohol. He started just drinking at parties, but now he hides alcohol in his room and drinks alone a few times a week when his parents aren't home. It was fun to drink with his friends at parties, but sneaking around to drink makes him feel like a loser. He's also had to lie to his parents to cover up his unusual behavior. Your friend tells you that he wants to get help for the problem but doesn't know what to do.

How serious do you think the substance problem is for the person in this story?

(not) 1—2—3—4—5—6—7—8—9—10(very)

How likely would you be to do each of following things to help the person

in this story if he asked you for help with his substance problem?

Ask a friend who has gone though a similar problem for advice	**(not) 1—2—3—4—5 (very)**
Ask your own parents for advice	**(not) 1—2—3—4—5 (very)**
Ask a teacher for advice	**(not) 1—2—3—4—5 (very)**
Ask a school counselor/psychologist for advice	**(not) 1—2—3—4—5 (very)**
Give the person the contact information for a drug and alcohol treatment center in your area.	**(not) 1—2—3—4—5 (very)**
Tell the person to talk to their parents	**(not) 1—2—3—4—5 (very)**
Tell the person to contact a support group like Alcoholics Anonymous or Narcotics Anonymous.	**(not) 1—2—3—4—5 (very)**
Tell the person to go on-line to find support groups and information about what kind of help he needs.	**(not) 1—2—3—4—5 (very)**
Ask a religious leader for advice	**(not) 1—2—3—4—5 (very)**

How important to you were the following factors in determining the seriousness of this person's substance problem?

Whether the person was male or female	**(not) 1—2—3—4—5 (very)**
Age of the person	**(not) 1—2—3—4—5 (very)**
Amount of the substance the person was using	**(not) 1—2—3—4—5 (very)**
Type of substance the person was using	**(not) 1—2—3—4—5 (very)**
Amount of trouble that using the substance was causing	**(not) 1—2—3—4—5 (very)**

Imagine a girl in your group of friends has recently started smoking cigarettes. She first tried it when she was hanging out after school with you and your friends. Some of the other kids were smoking, and she thought she could just have one cigarette every day after school to relax together with everyone before going home. The problem is that she started craving cigarettes at other times. She has not yet smoked at other times, but she's upset because she thought she could control her smoking and is having trouble doing so. She asks for your advice on what to do.

How serious do you think the substance problem is for the person in this story?

(not) 1—2—3—4—5—6—7—8—9—10(very)

How likely would you be to do each of following things to help the person

in this story if she asked you for help with her substance problem?

Ask a friend who has gone though a similar problem for advice	**(not) 1—2—3—4—5 (very)**
Ask your own parents for advice	**(not) 1—2—3—4—5 (very)**
Ask a teacher for advice	**(not) 1—2—3—4—5 (very)**
Ask a school counselor/psychologist for advice	**(not) 1—2—3—4—5 (very)**
Give the person the contact information for a drug and alcohol treatment center in your area.	**(not) 1—2—3—4—5 (very)**
Tell the person to talk to their parents	**(not) 1—2—3—4—5 (very)**
Tell the person to contact a support group like Alcoholics Anonymous or Narcotics Anonymous.	**(not) 1—2—3—4—5 (very)**
Tell the person to go on-line to find support groups and information about what kind of help she needs.	**(not) 1—2—3—4—5 (very)**
Ask a religious leader for advice	**(not) 1—2—3—4—5 (very)**

How important to you were the following factors in determining the seriousness of this person's substance problem?

Whether the person was male or female	**(not) 1—2—3—4—5 (very)**
Age of the person	**(not) 1—2—3—4—5 (very)**
Amount of the substance the person was using	**(not) 1—2—3—4—5 (very)**
Type of substance the person was using	**(not) 1—2—3—4—5 (very)**
Amount of trouble that using the substance was causing	**(not) 1—2—3—4—5 (very)**

Imagine a girl that you were friends with has been expelled from school. She was caught buying methamphetamine (meth) from another kid in the cafeteria. You know that she has been taking it regularly for a while and has recently begun to take more of it. In fact, she recently asked you for money because she didn't have enough to buy the meth she wanted. You know that she has also been caught stealing money from her mom's purse to buy drugs with.She has been in trouble at school a lot lately and her parents are extremely upset with her. You see her in the neighborhood and she tells you she hates to be in so much trouble, but she can't stop using meth even if it means getting sent to juvenile detention. She doesn't know what to do.

How serious do you think the substance problem is for the person in this story?

(not) 1—2—3—4—5—6—7—8—9—10(very)

How likely would you be to do each of following things to help the person

in this story if she asked you for help with her substance problem?

Ask a friend who has gone though a similar problem for advice	**(not) 1—2—3—4—5 (very)**
Ask your own parents for advice	**(not) 1—2—3—4—5 (very)**
Ask a teacher for advice	**(not) 1—2—3—4—5 (very)**
Ask a school counselor/psychologist for advice	**(not) 1—2—3—4—5 (very)**
Give the person the contact information for a drug and alcohol treatment center in your area.	**(not) 1—2—3—4—5 (very)**
Tell the person to talk to their parents	**(not) 1—2—3—4—5 (very)**
Tell the person to contact a support group like Alcoholics Anonymous or Narcotics Anonymous.	**(not) 1—2—3—4—5 (very)**
Tell the person to go on-line to find support groups and information about what kind of help she needs.	**(not) 1—2—3—4—5 (very)**
Ask a religious leader for advice	**(not) 1—2—3—4—5 (very)**

How important to you were the following factors in determining the seriousness of this person's substance problem?

Whether the person was male or female	**(not) 1—2—3—4—5 (very)**
Age of the person	**(not) 1—2—3—4—5 (very)**
Amount of the substance the person was using	**(not) 1—2—3—4—5 (very)**
Type of substance the person was using	**(not) 1—2—3—4—5 (very)**
Amount of trouble that using the substance was causing	**(not) 1—2—3—4—5 (very)**

Imagine a guy on your sports team just got suspended for smoking pot. This is the second time the coach has caught him being high during a game, but you have noticed that he is high at practice at least once a week. You have also seen him smoking pot with some other kids in the locker room before practice. The boy tells you that he likes smoking pot and does so a few times a week, but he also doesn't want to get kicked off the team. You know that if he gets caught again he will be kicked off. He doesn't know how to solve his problem.

How serious do you think the substance problem is for the person in this story?

(not) 1—2—3—4—5—6—7—8—9—10(very)

How likely would you be to do each of following things to help the person

in this story if he asked you for help with him substance problem?

Ask a friend who has gone though a similar problem for advice	**(not) 1—2—3—4—5 (very)**
Ask your own parents for advice	**(not) 1—2—3—4—5 (very)**
Ask a teacher for advice	**(not) 1—2—3—4—5 (very)**
Ask a school counselor/psychologist for advice	**(not) 1—2—3—4—5 (very)**
Give the person the contact information for a drug and alcohol treatment center in your area.	**(not) 1—2—3—4—5 (very)**
Tell the person to talk to their parents	**(not) 1—2—3—4—5 (very)**
Tell the person to contact a support group like Alcoholics Anonymous or Narcotics Anonymous.	**(not) 1—2—3—4—5 (very)**
Tell the person to go on-line to find support groups and information about what kind of help he needs.	**(not) 1—2—3—4—5 (very)**
Ask a religious leader for advice	**(not) 1—2—3—4—5 (very)**

How important to you were the following factors in determining the seriousness of this person's substance problem?

Whether the person was male or female	**(not) 1—2—3—4—5 (very)**
Age of the person	**(not) 1—2—3—4—5 (very)**
Amount of the substance the person was using	**(not) 1—2—3—4—5 (very)**
Type of substance the person was using	**(not) 1—2—3—4—5 (very)**
Amount of trouble that using the substance was causing	**(not) 1—2—3—4—5 (very)**

If they were to ask you right now, how prepared would you feel to give advice to the people from these stories about how to get substance treatment ?	**(not) 1—2—3—4—5 (very)**

How difficult to overcome are the following obstacles to someone your age getting substance treatment for themselves.	
Travel distance to the nearest substance treatment center	**(not) 1—2—3—4—5 (very)**
Cost for substance treatment services	**(not) 1—2—3—4—5 (very)**
Possibility that others would find out that the person was in substance treatment	**(not) 1—2—3—4—5 (very)**
Getting parental permission	**(not) 1—2—3—4—5 (very)**
Low number of treatment options in your area	**(not) 1—2—3—4—5 (very)**
Difficulty finding treatment for adolescents (professionals who understand teenagers)	**(not) 1—2—3—4—5 (very)**
Finding treatment that is at a convenient time	**(not) 1—2—3—4—5 (very)**
Possibility of legal problems if treatment is sought	**(not) 1—2—3—4—5 (very)**
Possibility of being removed from home for treatment	**(not) 1—2—3—4—5 (very)**
How much do you agree with the statement "It is more difficult for adolescents in rural than in urban areas to get substance abuse treatment for themselves."	**(not) 1—2—3—4—5 (very)**
How familiar are you with each of the following types of treatment for substance problems?	
Therapy/counseling	**(not) 1—2—3—4—5 (very)**
Detoxification (Detox)	**(not) 1—2—3—4—5 (very)**
Support groups like Alcoholics Anonymous and Narcotics Anonymous	**(not) 1—2—3—4—5 (very)**
On-line support groups	**(not) 1—2—3—4—5 (very)**
Methadone (for Heroin use)	**(not) 1—2—3—4—5 (very)**
Nicotine patches/gum	**(not) 1—2—3—4—5 (very)**
Antabuse (medicine that makes someone sick if they drink alcohol after taking it)	**(not) 1—2—3—4—5 (very)**
Rehabilitation centers (Rehab)	**(not) 1—2—3—4—5 (very)**

Directions: For each of the following statements rate the extent to which you agree or disagree with it by circling the number that best describes your opinion.

Every alcoholic and addict must accept that he or she is powerless over alcohol and drugs, and can never drink or use again. (**disagree)1—2—3—4—5(agree)**

Alcoholics and drug addicts have a distinct set of personality traits by which they can be identified. (example: uncaring, selfish, nervous, etc.) (**disagree)1—2—3—4—5(agree)**

Every Alcoholic or addict is one drink or one hit away from total relapse (slipping back into addiction). (**disagree)1—2—3—4—5(agree)**

The society or culture in which one grows up has a significant influence on whether or not one becomes an alcoholic or addict. (**disagree)1—2—3—4—5(agree)**

If an alcoholic or addict isn't motivated, there is not much you can do to help him or her. (**disagree)1—2—3—4—5(agree)**

People can be <u>born</u> alcoholics or addicts. (**disagree)1—2—3—4—5(agree)**

A person's environment plays an important role in determining whether he or she develops alcoholism or drug addiction. (**disagree)1—2—3—4—5(agree)**

Once a person is an alcoholic or addict, he or she will always be an alcoholic or addict. (**disagree)1—2—3—4—5(agree)**

Alcoholism and drug addiction are caused, in part, by growing up in a dysfunctional family (example: broken home, abusive home, etc.) (**disagree)1—2—3—4—5(agree)**

Usually if alcoholics and addicts fail to recover in support groups such as Alcoholics Anonymous /Narcotics Anonymous, or in treatment, it is because they are unmotivated and in denial. (**disagree)1—2—3—4—5(agree)**

If an alcoholic or addict is sober or straight for five years, and then starts drinking or using drugs again, he or she is right back where he or she left off in the development of the disease. (**disagree)1—2—3—4—5(agree)**

There are "problem drinkers" who have significant problems with alcohol, but who are not alcoholic. (**disagree)1—2—3—4—5(agree)**

Alcoholism and drug addiction are caused, in part, by what one learns about alcohol and drugs and the drinking/drug use patterns of one's family and friends. (**disagree)1—2—3—4—5(agree)**

A person can develop alcoholism or drug addiction because of underlying psychological problems. (example: depression, anxiety, etc.) (**disagree)1—2—3—4—5(agree)**

Denial (not admitting to yourself that you have a problem) is part of the personality of the alcoholic or drug addict. (**disagree)1—2—3—4—5(agree)**

Alcoholics and drug addicts who are forced into treatment do just as well as those who come into treatment on their own. (**disagree)1—2—3—4—5(agree)**

Except for detoxification (medical treatment which removes

all illegal drugs or alcohol from the body), alcoholics and addicts

should never be given psychiatric medications such as anti-depressants, lithium, or anti-anxiety drugs. (**disagree)1—2—3—4—5(agree)**

There are only two possibilities for an alcoholic or drug addict—permanent abstinence (never using drugs or alcohol again) or death. (**disagree)1—2—3—4—5(agree)**

If an alcoholic has a drink, or if an addict takes a hit, they lose control and are unable to stop from getting drunk or high. (**disagree)1—2—3—4—5(agree)**

Directions: Answer the following opinion questions.

The following are descriptions of different amounts of drug use. Please mark the first one that describes the amount at which you believe a person has a substance problem that needs **professional** help.

__Occasional drug use, usually in a social or recreational situation
__More frequent drug use that has caused some minor negative consequences for the person (i.e. trouble with parents)
__Regular frequent use of drugs with frequent negative consequences (i.e. several school suspensions, having no friends)
__Continued regular drug use despite severe negative consequences (i.e. expelled from school, arrested) tolerance, and trading or selling important items to get more drugs.

The following are descriptions of different amounts of alcohol use. Please mark the first one that describes the amounts at which you believe a person has a substance problem that needs **professional** help.

__Occasional alcohol use, usually in a social or recreational situation
__More frequent alcohol use that has caused some minor negative consequences for the person (i.e. trouble with parents, DUI)
__Regular frequent use of alcohol with frequent negative consequences (i.e. several school suspensions, lost licensee)
__Continued regular alcohol use despite severe negative consequences (i.e. expelled from school, arrested) tolerance, and trading or selling important items to get more alcohol.

Have you ever lived in an urban area/large city? (examples of urban areas are Pittsburgh, New York, Chicago, Philadelphia) **Y/N**

If so, for about how long**?**_____

List the names of all the substance treatment centers that you know of in your area.

Based on what you've learned in the drug and alcohol education that you have had in the past, do you believe that this education teaches students what to do if they already have, or know someone their own age who has, a drug or alcohol problem? **Y/N**

What is your age?_____What grade are you in?_____ Are you male or female?____

Please use the space below to provide any comments you wish to make about the survey.

THANK YOU for filling out this survey!
Your participation is appreciated.

Appendix C: Take-Home Consent Packet

Dear Parent or Guardian,

We are writing to ask for your assistance in a research project concerning high school students in your area. This project has been approved by Purchase Line Junior/Senior High School and is being conducted by Indiana University of Pennsylvania.

The purpose of this research is to better understand the way that adolescents living in rural areas think about drug and alcohol use and about treatment for drug and alcohol problems. With the knowledge gained from this research, prevention and education programs at your child's school can potentially be improved. This research will not ask about your child's personal drug or alcohol use or treatment history, and will not be used to identify adolescents in need of treatment.

We will be administering surveys to 9th and 12th grades who obtain parental permission and who wish to participate in our study. If you think you might be interested in allowing your child to participate in this study, please read the more detailed information on the next page. If you are not interested, please have your child return the blank packet. Please keep this letter for your own information.

We sincerely appreciate your consideration,

Jennifer Simansky, M. A.

Doctoral Student
xppl@iup.edu

Laurie Roehrich, Ph.D.

Dissertation Chair, Associate Professor
roehrich@iup.edu

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730).

Parental Informed Consent Form

Your child is invited to participate in this research project. The following information is provided in order to help you to make an informed decision whether or not to allow your child to participate. If you have any questions please do not hesitate to ask. Your child is eligible to participate because he/she is a 9th or 12th grade student in at Purchase Line Jr./Sr. High School.

The purpose of this study is to explore the way that adolescents who live in rural areas see drug and alcohol use. It will also ask about how rural adolescents see the ability of people their own age to receive treatment for drug and alcohol problems if it is needed. The results can potentially be used to improve substance education, treatment option awareness, and treatment utilization in rural youth.

Your child's participation in this study is voluntary. You are free to decide not to allow your child to participate in this study or to withdraw your child at any time without adversely affecting your relationship with the research investigators at IUP or staff at Purchase Line. Your decision will not result in any loss of benefits to which you and your child are otherwise entitled. If you choose to allow your child to participate, he/she may withdraw at any time up until the survey is handed-in. He/she may withdraw by notifying the researcher or informing the person administering the survey. Upon his/her request to withdraw, all information pertaining to your child will be destroyed. If you choose to allow your child to participate, all information will be held in strict confidence and will have no bearing on his/her academic standing or services you receive from Purchase Line. The survey is anonymous and will not be used to identify particular individuals in need of substance abuse treatment. The information your child provides us will be considered only in combination with that of other participants. The information obtained in the study may be published in scientific journals or presented at scientific meetings but your child's identity will be kept confidential.

If you are willing to allow your child to participate in this study, please sign the statement below. Keep one copy for your own records, and have your child return the other to Purchase Line Jr./Sr. High School. At the completion of the survey your child will be given an information sheet that provides contact information if he/she wishes to receive the results of the study, and referral sources if he/she would like to receive counseling regarding any issues that may arise from participating in this study.

_____	_____
Parent/Guardian Name (please print)	Child Participant Name (please print)
_____	_____
Parent/Guardian Signature	Date

Student Researcher:	Dissertation Chair:
Jennifer Simansky, M.A.	Laurie Roehrich, Ph.D.
Doctoral Candidate, Clinical Psychology	Associate Professor

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730).

Adolescent Assent Form

I understand the information provided in the cover letter to my parent or guardian. I know that I have been invited to participate in a research study by filling out a survey that will be given to me at school. I understand that this study has two purposes. One is to look at what adolescents living in rural areas think about people their own age who use drugs and alcohol. The other is to see what they think about the ability of people their own age to get treatment for drug or alcohol problems if they need it. If I have any questions, I know that I can ask the investigator at any time.

I know that I will not be asked about my own drug or alcohol use, and I will not be asked about the drug or alcohol use of any of my friends. I understand that my responses are completely anonymous and confidential and that my parents and teachers will not be told about my specific answers to the survey. Even if I sign this form, I have the right to withdraw from the study at any time up until I hand in my survey. I know that I will not be punished for withdrawing or choosing not to participate in this study.

I agree to volunteer to be a subject in this study.

My Name (PLEASE PRINT)_____

My Signature_____

Date_____

Student Researcher:
Jennifer Simansky, M.A.
Doctoral Candidate, Clinical Psychology

Dissertation Chair:
Laurie Roehrich, Ph.D.
Associate Professor

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730).

Appendix D: Script

Hello, my name is _____. A few weeks ago your teachers gave you permission packets inviting you to participate in the research I will be doing today. In order to insure the privacy of those students who received permission to participate in this research and those who did not, I will hand out surveys to everyone in class. However, the surveys I give out to those of you who did not receive permission have been marked in a special way. Those surveys will be destroyed immediately after I collect them today. They will not be used in this research. (Hand out unmarked and marked surveys)

The purpose of this study is to explore the way that adolescents who live in rural areas see drug and alcohol use. It will also ask about how rural adolescents see the ability of people their own age to receive treatment for drug and alcohol problems if it is needed. I want to remind you that participation is voluntary and you may choose to withdraw at any time. If you wish to withdraw during this administration you may stop answering the questions and write the word "withdrawn" across the top of your survey. You will hand your survey in along with everyone else, but your survey will be destroyed. There is no punishment for withdrawing. You may also choose to skip any question that you do not feel comfortable answering. Please remember that if you have any questions while you are taking the survey, you may raise your hand and I will come to your desk and answer your question. Feel free to ask as many questions as you like. I will also be available for a few minutes after you are finished to answer any questions about the study.

After you complete the survey I will give you a sheet with my contact information so that you can reach me if you think of any questions later or if you wish to receive a copy of the survey results. The sheet will also list contact information for your school

counselor and other local therapy resources if you wish to receive counseling for any issue that comes up because of taking the survey. Are there any questions before we begin? Please do not put your name anywhere on the survey. You may begin.

(Investigator will stay in the room for the duration of the administration to answer any questions, process any withdrawals, collect the surveys, and hand out resource sheets)

Appendix E: Resource Sheet

Researchers:

Student Researcher:
Jennifer Simansky, M.A.
Doctoral Candidate, Clinical Psychology
Psychology Department, Uhler Hall
1020 Oakland Ave
Indiana, PA 15705
Phone: (724) 357-1323
xppl@iup.edu

Dissertation Chair:
Laurie Roehrich, Ph.D.
Associate Professor
Psychology Department,
Uhler Hall 103
1020 Oakland Ave.
Indiana, PA 15705
Phone: (724) 357-1323
roehrich@iup.edu

Therapy and Counseling Resources:

Purchase Line Guidance Counselor Site
Guidance counselors attn SAP Team
PO Box 374
16559 Route 286
Commodore Pa 15729
Phone 724-254-4312 x 4016

ARC Manor
200 Oak Ave.
Kittanning PA, 16201
Phone: 724-548-7607
` Toll Free: 1-800-323-1333
www.arcmanor.org
www.iup.edu/psychology/CAP/index.html

The Open Door
334 Philadelphia Street
Indiana, PA 15701
724-465-2605
www.theopendoor.org
satellites:
155 East Market Street
Blairsville, PA 15717
or
71 South Main Street
Cherry Tree, PA 15724

Alcoholics Anonymous Official

www.alcoholics-anonymous.org

Ctr. for Applied Psychology IUP
Indiana University of Pennsylvania
210 Uhler Hall
1020 Oakland Avenue
Indiana, PA 15705-1087
Phone: 724-357-7978; 724-357-6259
Fax: 724-357-7817

Appendix F: Site Approval Letter

PURCHASE LINE SCHOOL DISTRICT

16559 Route 286 Hwy E
P.O. Box 374, Commodore, PA 15729-0374

Dr. Richard C. Makin, Superintendent

District Office	(724) 254-4312	North Elementary	(814) 277-6602
Fax	(724) 254-1621		(814) 845-7600
High School	(724) 254-4312	Fax	(814) 277-8833
Fax	(724) 254-2306	South Elementary	(724) 254-4312
		Fax	(724) 254-3113

October 17, 2006

Dr. Laurie Roehrich
203 Uhler Hall
1020 Oakland Avenue
Indiana, PA 15701

Dear Dr. Roehrich:

This letter is to confirm site approval for Jennifer Simansky to administer a survey for her doctoral program at the Purchase Line High School.

As a member of the Purchase Line SAP team, I will be excited to discover the views of our students as it relates to their perceptions of substance abuse treatment and accessibility. Our SAP team has discussed, on numerous occasions, concern that although treatment is available, it is not easily accessible for our students.

I have been in regular contact with Jennifer to discuss parental permission to participate and details regarding administration. If you have any questions or concerns, contact me at 724-254-4312 X 4012.

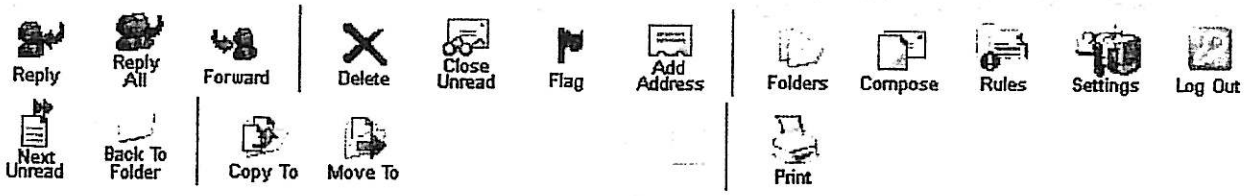
Sincerely,

Jody Rainey
Assistant Principal

Mg

Appendix G: Permission to use the SUSS

IUP I-Mail: Message from disserttion Folder



From: Keith Humphreys <knh@stanford.edu>
Subject: Re: permission to use SUSS
Date: Mon, 13 Nov 2006 17:57:01 -0800
To: Jennifer A Simansky <xppl@iup.edu>

Hello Ms. Simansky

Thank you for your email. Of course you may use the SUSS; it is free of charge and in the public domain.

You can get the scale and related info on our website

http://www.chce.info/

Click on "resources" and then go to the measures section

Good luck with your dissertation
KH

Quoting Jennifer A Simansky <xppl@iup.edu>:

> *Dr. Humphries,*
> *I am a doctoral student in clinical psychology at Indiana University of*
> *Pennsylvania. I am preparing for my dissertation regarding the perceptions that rural adolescents hold about substance abuse, and substance treatment. I discovered the SUSS published in:*
>
> *Humphries, K., Greenbaum, M. A., Noke, J. M., & Finney, J. W. (1996). Reliability,validity, and normative data for a short version of the understanding alcoholism scale. Psychology of Addictive Behaviors, 10(1). 38-44.*
> *I would like to use the SUSS as part of my survey materials. Am I able*
> *to do so, or is there some other procedure for obtaining permission?*
>
> *Thank you,*
> *Jennifer Simansky, M.A.*
> *xppl@iup.edu*

Appendix H: Summary of Responses to Item 22

Table 9

Responses to Item 22,
"List the names of all the substance treatment centers that you know of in your area."

Form	Grade	Response
A	9	School Counselor
A	9	AA
A	9	AA
A	9	Open Door, Indiana
A	9	Indiana Regional Medical Center
A	9	AA, Methadone place in Dubois
B	9	Alice Paul House
B	9	Open Door
B	9	Hospital Centers
B	9	Open Door
B	9	Guidence Office
B	9	AA , Open Door
B	9	Open Door
A	12	AA
A	12	AA, Open Door
A	12	Open Door, My Church
A	12	AA
A	12	Open Door, Hospitals
A	12	Open Door
A	12	Open Door
A	12	Methadone Clinic-Curwensville Clearfield Drug & Alcohol
B	12	AA
B	12	Open Door
B	12	AA
B	12	Open Door
B	12	ARIN, Open Door
B	12	Open Door, AA
B	12	Hospitals
B	12	Open Door, Indiana
B	12	Alice Paul House, AA
B	12	Open Door
B	12	Open Door
B	12	Discovery House? Grampian/Clearfield
B	12	Open Door, Indiana
B	12	AA
B	12	Alice Paul House, Indiana Hospital
B	12	ARIN, Open Door, AA
B	12	Open Door
B	12	Open Door
B	12	Discovery House that used to be on Rt. 219
B	12	Indiana Day Treatment, Indiana Hospital

Appendix I: Summary of Written Comments Provided by Participants

Table 10

Summary of Written Comments Provided by Participants

Form	Grade	Comment
A	9	Don't be so repetitive in some of the questions
A	9	I have never used drugs or alcohol and I don't plan to. EVER!
A	9	Cool Survey
A	9	I hope this helps! Is there a lot of Drug use in this area.
A	9	It was a good survey, you can learn things from it
B	9	You need to work on the way you ask questions! More diverse questions, then just the same kind over and over for 4 pages! Think like a High School student.
B	9	Needs To Ask More Personal Questions
B	9	It was good, and it took up class time. I liked it though.
B	9	Good Survey!
B	9	I think a lot of alcoholism and drug use has to do with where or how is brought up and what they parrents teach them at home [sic]
B	9	Your Welcome, I'm happy it is. [in response to the thanks at the end of the survey]
A	12	I believe that if alcoholism runs in your family, kids are more likely to being alcoholic when they grow up. I believe there is a greater chance. For drug abuse I think it is totally different.
A	12	Personally, I think that after one underage or illegal act from a teenager means you should go for classes for your problem, it makes you think a lot about what they did and how to change it now.
A	12	Good Survey
A	12	Things are only bad if you abuse them.
A	12	I believe this survey will widely help accomplish your goal! Yes I believe that is it getting worse and worse and younger in schools.
A	12	Pieces of paper is what it is. Drug users and alcoholocs need face to face real deal situations. This is just paper, an everyday thing.
A	12	Rural communities allow students to party and sneak around a lot easier than urban, not many cops and use woods as a place to drink and get high.
B	12	Great survey. It made me think more about the different treatments one undergoes when they have problems with substance abuse.
B	12	I think that the survey is really helpful because maybe than people will know how bad drugs and alcohol are to their bodies.
B	12	You must separate the alcoholic, addict conglomerate. A rehabilitated alcoholic can have a few drinks every once in a while, but drug abuse is like fishing with TNT, once you throw that explosive in the water the fish are yours to round up. I know many recovered alcoholics that still have drinks now & again.
B	12	Just because ppl. Drink and may get high does not mean they have problems, or they're bad kids. A lot of kids do both now a days. It means nothing. You can't judge someone from that.
B	12	Good Survey
B	12	This survey has made me realize how big of a problem drugs and alcohol are in this area and it made me want to be able to help the addicts even more

Table 10 (*Continued)*

Summary of Written Comments Provided by Participants

Form	Grade	Comment
B	12	It is unrealistic that after being caught with pot twice that a kid would still be on the team. He should have been gone long ago. Also all the problems are serious problems. And if the person really was your friend you wouldn't go tell a teacher right away, you'd try other ways to keep them out of more trouble.
B	12	I think health classes in High School need to be more in detail about a lot of these cases.
B	12	I think more students should be aware of what types of help are out there. Also that their friends should also help them get through their problems.