The Attitudes and Beliefs of Special and General Educational Professionals Concerning Alcohol and Drug Problems

Troy Wayne Kieser

University of Nevada, Las Vegas, tkieser@interact.ccsd.net

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THE ATTITUDES AND BELIEFS OF SPECIAL AND GENERAL EDUCATIONAL PROFESSIONALS CONCERNING ALCOHOL AND DRUG PROBLEMS

By

Troy Wayne Kieser

Bachelor of Arts
University of Nevada, Las Vegas
2006

Master of Education
University of Nevada, Las Vegas
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Troy Wayne Kieser

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Department of Educational and Clinical Studies

Kyle Higgins, Ph.D., Committee Chair
Joseph Morgan, Ph.D., Committee Member
Cori More, Ph.D., Committee Member
Richard Tandy, Ph.D., Graduate College Representative
Kathryn Hausbeck Korgan, Ph.D., Interim Dean of the Graduate College

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ABSTRACT

The Attitude and Beliefs of Special and General Educational Professionals Concerning Alcohol and Drug Problems

by Troy Kieser

Dr. Kyle Higgins, Committee Chair
Professor of Special Education
University of Nevada, Las Vegas

Special education and general education teachers

Substance Use Disorder (SUD)

Drug and alcohol abuse is one of the greatest challenges of public education. Substance abuse affects student academic performance. Teacher attitudes concerning substance use are linked to drug and alcohol use by students. The purpose of this study was to assertion teacher attitudes and beliefs about drug and alcohol use. The data were collected using a questionnaire. The questionnaire was a modified version of the Addiction Belief Inventory (ABI) based on the five constructs (e.g., coping, efficacy, disease, lack of efficacy, moral weakness) of substance abuse (Broadus, Hartje, Roget, & Cahoon, 2010; Luke, Ribisi, Walton, & Davidson, 2002). The participants were special and general education teachers from a large southwestern school district. A total of 119 special education and 117 general education teachers completed the questionnaire.

The results of the analysis (e.g., ANOVA, independent t-test) indicated that there were two significant differences for the construct of efficacy. There was a significant difference in the attitudes of special education and general education teachers. The other significant difference was in the attitude of male and female general education teachers for the construct of efficacy. The results of the analysis (e.g., ANOVA, independent
$t$-tests) did not show any significant difference for the constructs: (a) coping, (b) disease, (c) lack of efficacy, and (d) moral weakness.

The findings from this study create a baseline from which to further understand teacher attitudes and beliefs concerning substance use and abuse by children and youth in educational settings. While these data are preliminary, they do provide valuable information as education begins to develop curricula for teachers and students in this very important social area.
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DEDICATION

This dissertation is dedicated to my daughter, Crystal, who introduced me the world of special education and to Jodi Joyce for her work in the field of substance abuse in public schools.
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CHAPTER ONE
INTRODUCTION

The Substance Abuse and Mental Health Services Administration (SAMHSA) (2012a) reported that 1.2 million individuals in the United States, age 12-17, indicated that they were addicted to illegal drugs (e.g., cocaine, marijuana, methamphetamines). Approximately one million adolescents also indicated that they abused alcohol or considered themselves to be an alcoholic (SAMHSA, 2012a). These large numbers may be exasperated by access. A recent national survey found that 28% of middle school students and 62% of high school students stated they attended schools in which drugs were sold, available, or used (Finn & Willert, 2006). This availability results in youth who are three times more likely to use marijuana or drink, to the point of intoxication, than those who attend schools considered drug free (Finn & Willert, 2006).

Drug and alcohol abuse is one of the greatest challenges of public education (Botvin, Griffin, Paul, & Macaulay, 2003; Fowler & Tisdale, 1992; Moss, 2013). Educational norms of drug and alcohol use as well as school administrative policies can be predictors of adolescent substance use (De Moor et al., 1992). Teacher attitudes concerning substance use also are linked to drug and alcohol use by students (De Moor et al., 1992; Maehr & Midgley, 1996). Teacher attitudes may affect the use of alcohol, cigarettes, and marijuana outside of school (Ludden & Eccles, 2007). For example, when teachers do not use substances (e.g., do not smoke, do not use marijuana, do not binge drink) and students believe the teachers care about them, there is a lower alcohol and drug usage rate among students (Guilamo-Ramos, Jaccard, Turrisi, & Johansson, 2005).
The literature indicates that teachers are aware of the impact illegal drugs have on their students (Botvin et al., 2003; Fowler & Tisdale, 1992; Moss, 2013). Because teacher attitudes concerning substance use influence the drug and alcohol use of students, it is imperative to ascertain and monitor these attitudes (Ludden & Eccles, 2007).

Substance Use Disorder Defined

Substance use is defined by the social and cultural norms that exist within a given time period as well as by academic entities (Anderson, Aromaa, & Rosenbloom, 2007). The use of drugs or alcohol changes over time through the development of new synthetic drugs, popularity of different types of alcohol, implementation of new governmental regulations, and current availability of drugs or alcohol (Anderson et al., 2007). The fields of sociology, psychology, and education provide various definitions of substance use disorder (SUD) (American Psychiatric Association [APA], 2013; Curran, 2007; Dasgupta, Sinha, & Choudhary, 2008; Flay, 2000; Johnston, O’Malley, Bauchman, & Schulenberg, 2012). Typically, these definitions are couched within the theories and philosophies of the individual fields of study.

The Field of Sociology

The field of sociology maintains that substance abuse is directly related to the effectiveness of the society upon which youth depend for support and guidance (Curran, 2007; Flay, 2000). Sociological researchers maintain that drug abuse has grown in the last decade because society is not providing adequate guidance to its children (Curran, 2007; Flay, 2000). This has resulted in a recursive cycle in which drug use impacts policy, laws, crime, and the community (Goode, 2006). Most sociologists define SUD as
the harmful consumption of mood altering substances, including alcohol and other illegal drugs, that results in decreased social ties adolescents need to develop into productive and happy adults (Allman, 2009).

**The Field of Psychology**

Psychology views SUD as heterogeneous developmental disorders comprised of multiple pathways (Townsend, Flisher, & King, 2007). The developmental course of a SUD differs, particularly when comorbid conditions (e.g., disabilities) are present (Weinberg, 2001). A SUD typically occurs early in life, generally in adolescence, and manifests different symptoms at different ages (e.g., psychiatric conditions, life experiences) (Weinberg, 2001). The disorder may be mild, moderate, or severe as defined by the *Diagnostic and Statistical Manual of Mental Disorders V* (APA, 2013).

The *Diagnostic and Statistical Manual of Mental Disorders V* (APA, 2013) defines a SUD as the chronic use of substances resulting in failure to meet work, school, or home obligations. Typically, substances are classified into ten groups: (a) alcohol, (b) caffeine, (c) cannabis, (d) hallucinogens, (e) inhalants, (f) opioids, (g) sedatives, (h) stimulants, (i) tobacco, and (j) other (or unknown) substances (APA, 2013). Any of these substances, taken in excess, activate the reward system of the brain and produce such an intense euphoria that normal activities may be neglected (Koob, 2009). Individuals with less self-control or impairments in brain inhibitory functioning may be predisposed to SUD (Moffitt et al., 2011).

Psychologists define a SUD as specific behaviors and consequences characterized by a maladaptive pattern of use of any substance for mood-altering purposes that leads to
significant impairment or distress (Dasgupta et al., 2008; Swann, 2012). The impairment may result in problems with family, work, or school.

**The Field of Education**

Education maintains that substance use is a rapidly changing phenomenon that requires assessment and reassessment (Johnston et al., 2012). Therefore, education discusses SUD in functional terms. Typically, education defines SUD as interfering with the educational process (Fritz & Carroll, 1999). Some of the scholastic variables affected by SUD are: (a) academic achievement, (b) motivation, (c) attendance, (d) conduct, and (e) graduation (Fritz & Carroll, 1999; Salm, Sevigny, Mulholland, & Greenberg, 2011; Schroeder & Johnson, 2009; Sekulic, Ostojc, Ostojc, Hajdarevic, & Ostojc, 2012). In education, substance use disorder is defined as the frequent use of a drug and/or alcohol that interferes with an individual’s education, resulting in adverse consequences (Lasser & Schmidt, 2009).

The definition of SUD will continue to change as social and cultural norms change and evolve (Johnston et al., 2012). For the purpose of this dissertation, SUD is the frequent use of drugs or alcohol impacting a person’s ability to function, maintain relationships, or meet educational objectives (Salm et al., 2011; Weinberg, 2001).

**Prevalence of Substance Use Disorders**

A variety of illegal substances can be obtained by youth with and without disabilities at school or in the community (Christian & Poling, 1997; Slayter, 2006). Because of this availability, substance use varies by geographic location, gender, age
Students Without Disabilities

In 2011, it was estimated that 22.5 million Americans (8.7% of the population), age 12 or older, used illegal drugs or misused prescription drugs (e.g., pain relievers, tranquilizers) (National Institute of Drug Abuse [NIDA], 2012). This was an increase in usage since 2002 (NIDA, 2012). This increase indicated a rise in marijuana use, the most used illegal drug (SAMHSA, 2012a). Relationally, the frequency of illegal drug use is related to the number of students who drop out of school (CBHSQ, 2013).

Binge drinking is defined as five or more alcoholic drinks on the same occasion (NIDA, 2012). In 2011, statistics for students without disabilities indicated that 30% of males (12 years and older) and 13.9% of females reported binge drinking (NIDA, 2012). Nine percent of males and 2.6% of females reported drinking heavily (binge drinking five separate days over a month long period) (NIDA, 2012).

Illegal drug use. The illegal use of drugs by youth in the United States is lowest in the southern states and highest in the western states (Office of Applied Studies [OAS], 2003; SAMHSA, 2012a). The SAMHSA (2012a) estimates that illegal drug use during an average month in the southern region of the United States impacts 9.2% of youth (ages 12-17) (SAMHSA, 2012a). During a similar month in the western region of the United States, the estimate of adolescent drug usage is 11.8% for the same age group (SAMHSA, 2012a).

Estimates of illegal substance use are higher for youth who have dropped out of school than those who remain in school (CBHSQ, 2013). This also is true for adolescents
who are male (CBHSQ, 2013). Data for 12th grade students indicate that 35.8% of males, who have dropped out of school, use illegal substances, while only 20.5% still enrolled in school do so (CBHSQ, 2013). For 12th grade females, 25.5% of those who have dropped out use illegal substances compared to 15.7% who use illegal substances and are still enrolled in school (CBHSQ, 2013). White adolescents are more likely to use illegal substances than African American or Latino youth, however, when school attendance is factored in, the numbers change (CBHSQ, 2013). Of the students who have dropped out of school, over 35% of the White youth and over 37% African American youth have used illegal substances (CBHSQ, 2013). These rates are considerably higher than the 17% illegal usage rate for Latino students who have dropped out of school (CBHSQ, 2013).

Hospital emergency room visits reflect the illegal substances being used in local areas (SAMHSA, 2012b). The emergency hospital visits for cocaine use in Denver, Colorado are 1.5 times greater than hospital visits in Phoenix, Arizona (SAMHSA, 2012b). In 2011, for every 100,000 emergency room visits in Denver, 137 were due to cocaine use compared to 81 visits in Phoenix (SAMHSA, 2012b). The Seattle, Washington emergency room visit rate for heroin use per 100,000 people is 4.3 times greater than San Francisco, California and more than two times greater than the metropolitan areas of Denver and Phoenix (SAMHSA, 2012b). In terms of individuals, this breaks down to 177 individuals in Seattle, 40 in San Francisco, 72 in Denver, and 81 in Phoenix (SAMHSA, 2012b).

While alcohol, cocaine, heroin, and marijuana overuse is seen in emergency hospital rooms, the abuse of amphetamines and methamphetamine, resulting in hospital visits, is less than 10 per 100,000 for the east coast (SAMHSA, 2012b). Conversely, for
west coast cities the number of emergency room visits involving amphetamines equals 29 people in Denver, 64 in Phoenix, 50 in San Francisco, and 39 in Seattle (SAMHSA, 2012b). This rate rises for methamphetamine usage to 53 people in Denver, 104 in Phoenix, 139 in San Francisco, and 87 in Seattle (SAMHSA, 2012b). The abuse of ecstasy, d-lysergic acid diethylamide (LSD), phencyclidine (PCP), and inhalants results in less than 16 individuals per 100,000 emergency room visits for all areas of the country (SAMHSA, 2012b).

**Binge drinking.** The rate of binge drinking is lowest in the southern states and highest in the northeastern states (SAMHSA, 2012a). The SAMHSA (2012a) estimates that 6.8% of youth, ages 12-17 years, in the southern region of the United States and 9.0% of youth in the northeast region binge drink (SAMHSA, 2012a).

Estimates of alcohol binge drinking are higher for youth who have dropped out of school than those who remain in school (CBHSQ, 2013). This is also true for adolescents who are male (CBHSQ, 2013). Alcohol binge drinking is more prevalent than illegal substance use among adolescents (CBHSQ, 2013). Approximately 38.7% of 12<sup>th</sup> grade males, who have dropped out of school, binge drink alcohol compared to 27.5% still enrolled in school (CBHSQ, 2013). While 23.6% of 12<sup>th</sup> grade females who have dropped out of school drink heavily, only 20.0% still enrolled in school do so (CBHSQ, 2013). White adolescents are 25% more likely to binge drink than African American youth and 40% more likely to binge drink than Latinos of the same age group (CBHSQ, 2013). Alcohol binge drinking varies among cities in geographic regions as reflected in the alcohol admittance rate to hospital emergency rooms with the Denver admittance rate
being 298 individuals compared to the Phoenix area being 219 per 100,000 visits (CBHSQ, 2013; SAMHSA, 2012b).

Students With Disabilities

People with disabilities use drugs and alcohol at approximately the same rate as people without disabilities (Katims, Zapata, & Yin, 1996; McCrystal, Percy, & Higgins, 2007; McGillicuddy, 2006; Rurangirwa, Braun, Schendel, & Yeargin-Allsopp, 2006; Slayter, 2010). As youth with disabilities are included more and more in the community, they are exposed to alcohol and illegal drugs thus increasing the potential for substance abuse (Slayter, 2010; Yu, Huang, & Newman, 2008).

Illegal drug use. The NLTS2 (2009) study of young adults with disabilities (ages 21-25) found that 18% had used illegal drugs. Specifically, 20% of the young adults with learning disabilities and 8.0% of those identified with intellectual disabilities reported using illegal drugs (NLTS2, 2009). Young adult males with disabilities were 1.8 times more likely to report using drugs than young adult females with disabilities (NLTS2, 2009). Drug usage among White, Latino, and African American young adults with disabilities is similar with rates of 19%, 18%, and 16% respectively (NLTS2, 2009).

Binge drinking. Alcohol use is more common than drug use among young adults with disabilities (ages 18-21). Fifty-six percent of young adults with disabilities report drinking alcohol (NLTS2, 2009). Sixty percent of these have been identified with learning disabilities and 32% with intellectual disabilities (NLTS2, 2009). Young adult males with disabilities are twice as likely to drink alcohol 20 days or more during a 30-day period than are young females with disabilities (NLTS2, 2009). Drinking alcohol is more common among White young adults with disabilities than among Latino, African
American, or other ethnic groups with disabilities (NLTS2, 2009). Sixty-five percent of the White young adults with disabilities drank alcohol within a 30-day period compared to 45% of the Latino, 38% of the African American, and 4% of other diverse groups during the same time period (NLTS2, 2009).

Adolescents with disabilities who use illegal substances (alcohol or drugs) use the substances that are prevalent in their local area (Christian & Poling, 1997). The prevalence rates for substance use and binge drinking for people with disabilities are broken down by culture and gender. Youth with disabilities are more likely to binge drink than use illegal substances (NLTS2, 2009). However, for all students the type of substance used and the amount of abuse varies by geographic region resulting in a differential impact on the educational systems in each area (Johnston et al., 2012; SAMHSA, 2012a).

**Impact of Substance Use Disorders**

Often alcohol and drug use is viewed as a rite of passage for adolescents (Anderson et al., 2007). Research indicates that early initial use of illegal drugs or alcohol can increase the likelihood of immediate and future negative consequences (Anderson et al., 2007; Spoth, Redmond, Trudeau, & Shin, 2002). For many, initial drug and alcohol use in high school will impact academic performance, social development, and personal safety (Hollar & Moore, 2004). Failure to meet major work, school, or home obligations as well as interpersonal problems and exposure to physically hazardous situations also may occur (APA, 2013).
Students Without Disabilities

Youth without disabilities who abuse illegal substances face numerous problems in education that extend into employment and social interactions (Hollar & Moore, 2004). Students who binge drink alcohol, use marijuana, or use cocaine are: (a) less likely to earn core high school credits, (b) less likely to use birth control, (c) more likely to begin sexual relations at an earlier age, (d) more likely to drop out of high school, and (e) more likely to earn less money than those who do not binge drink or use illegal drugs (Anderson et al., 2007). McClelland, Elkington, Teplin, and Abram (2004) found that nearly 50% of the youth in juvenile detention centers had substance abuse problems and 21% had multiple substance abuse problems. Recent reports indicate that adolescents with SUD are at risk for chemically modifying their brains to the point of developing a learning or behavioral disability (National Center on Addiction and Substance Abuse [NCASA], 2000).

Illegal drug use. Adolescents who use illegal drugs demonstrate impairments in: (a) abstract thought, (b) cognitive flexibility, (c) attention, (d) working memory, and (e) goal persistence, all of which reflect deficits in executive functioning (Weinberg, 2001). Academic failure is another result of adolescent illegal drug use with usage linked to poor school attendance and negative school behaviors (e.g., low motivation, poor attitude) (Weinberg, 2001). Social skill deficits also have been linked to illegal drug use and are manifested in peer rejection and a slowing of emotional growth (Scheier, Botvin, Diaz, & Griffin, 1999). Negative impacts of adolescent illegal drug use on the family include the disruption of: (a) attachment, (b) rituals, (c) roles, (d) routines, (e) communication, (f) social life, and (g) finances (Scheier et al., 1999).
**Binge drinking.** Binge drinking is categorized into mild, moderate, severe, or potentially fatal based on the amount of alcohol consumed and level of functional impairment (APA, 2013). Each category has its own symptoms of impairment. A mild impairment involves reduced visual acuity, slower reaction time, and loss of co-ordination. A moderate impairment includes slurred speech, blurred vision, and blackouts. A severe impairment involves respiratory depression, convulsions, and cardiac arrhythmia. A potentially fatal impairment includes deep coma, respiratory arrest, and circulatory failure (Office of Alcohol and Drug Education [OADE], 2008; Wilson & Saukkonen, 2004).

Another result of alcohol binge drinking is withdrawal. The onset of withdrawal is within several hours of stopping the use of alcohol (National Library of Medicine [NLM], 2011). Some symptoms of withdrawal include: (a) tremors, (b) vomiting, (c) weakness, (d) tachycardia, (e) hypertension, (f) sweating, (g) anxiety, (h) depressed mood, (i) irritability, (j) restlessness, (k) transient hallucinations, (l) illusions, (m) headache, (n) insomnia, and (o) seizures. An extreme case may include delirium tremens (DT) occurring several days after stopping alcohol use, with 20% of the cases resulting in death if untreated (APA, 2013; NLM, 2011).

**Students With Disabilities**

Research indicates that youth with disabilities may have increased risks of SUD (Hallowell & Ratey, 1995; McCombs & Moore, 2002; Nelipovich & Buss, 1991). Adolescents with attention deficit /hyperactivity disorder (ADHD) often experience anxiety, depression, self-esteem problems, and obsessive-compulsive behaviors, making them susceptible to SUD (Hallowell & Ratey, 1995). Youth who have blindness or visual
impairments are at risk for alcohol and drug problems due to isolation, excess free time, and underemployment (Nelipovich & Buss, 1991).

**Illegal drug use.** Adolescents with disabilities use and abuse drugs at approximately the same rate as adolescents without disabilities (Taggart McLaughlin, Quinn, & McFarlane, 2007). Judgment and social skills often require more cognitive effort for adolescents with disabilities (McCombs & Moore, 2002). Therefore, the same amount of drugs that affect an adolescent without disabilities may have a more severe impact on the cognitive and motor skills of a youth with disabilities (McCombs & Moore, 2002). Another significant risk faced by adolescents with disabilities who abuse drugs is the combination of therapeutic medications and illegal drugs (Annand et al., 2005; OADE, 2008). This combination may have disastrous consequences, including death (Annand et al., 2005).

The effects of illegal drug use on individuals with disabilities create a greater risk for criminal involvement resulting from behaviors of aggression, tantrums, and self-destructive acts (McGillivray & Moore, 2001; Taggart et al., 2007; Westermeyer, Phaobtong, & Neider, 1988). Substance use among people with disabilities also increases the risk of victimization (e.g., sexual, financial, larceny) (Slayter & Steenrod, 2009).

People with disabilities may self-medicate with illegal substances to block memories of psychological traumas (e.g., death of family members, emotional abuse, financial abuse, sexual abuse) as well as feelings of social distance from the community caused by being bullied, exploited, or isolated (Taggart et al., 2007). Substance use by adolescents with intellectual disabilities effects not only their cognitive thinking ability,
but also their independence and support services (e.g., eviction from housing, placement in residential facilities) (Slayter & Steenrod, 2009; Taggart et al., 2007).

**Binge drinking.** The rate of alcohol use is relatively the same among people with disabilities and those without disabilities (Taggart et al., 2007). Youth with disabilities have access to alcohol and often use alcohol to feel accepted by their general education peers (National Institute on Alcohol Abuse and Alcoholism [NIAAA], 2005). However, the negative effects of alcohol on the person with disabilities may be greater than the effects of alcohol on the person without disabilities (McCombs & Moore, 2002). Some youth with disabilities may already have deficits in skills needed for social interactions making them easily influenced and vulnerable to exploitation (McCombs & Moore, 2002; Westermeyer et al., 1988). The risk of exploitation increases when individuals with disabilities use alcohol because of increased social skill deficits when inebriated (Slayter & Steenrod, 2009; Taggart et al., 2007).

Youth with disabilities who need therapeutic medications are also at risk of the interaction of some medications with alcohol. Youth who take psychotropic or anticonvulsant medications need training on the interaction of their prescription with alcohol (Christian & Poling, 1997; McCombs & Moore, 2002; OADE, 2008). Youth with seizure disorders may experience more intense seizures when consuming alcohol (Christian & Poling, 1997).

Many youth with disabilities who experience difficulty with recurring alcohol problems struggle in their efforts to remain sober, maintain employment, and integrate into society (Department of Health and Human Services [DHHS], n.d.). Youth with learning disabilities who abuse alcohol are five times more likely to have multiple arrests.
than teenagers without learning disabilities (Yu, Buka, Fitzmaurice, & McCormick, 2006). These youth are also twice as likely to continue drinking even when they admit they want to quit (Yu et al., 2006).

**The Attitudes of Professional Educators Concerning Substance Abuse**

Educators believe that drug usage among adolescents is a significant barrier to students meeting their educational objectives (Botvin et al., 2003). Research indicates that many students use drugs and alcohol at school, causing both legal and educational problems for teachers (Finn & Willert, 2006). Unfortunately, it appears that there is an inconsistency between educator awareness of drug use and their reaction in the classroom (DiLorenzo et al., 1991). Ultimately, the attitudes and actions of teachers affect the success of anti-drug efforts in schools (Finn & Willert, 2006).

Research indicates that educators believe that some students come to school under the influence of illegal substances (e.g., drugs), while they report never seeing a student intoxicated (e.g., drunk) at school (Salm et al., 2011). However, 35% of the students in the same study reported having been under the influence of drugs or alcohol in school within the last four months (Salm et al., 2011). This difference may be caused by the symptoms of substance use manifesting themselves as a learning disability (NCASA, 2000). The symptoms that students with learning disabilities and students who abuse substances share are: (a) low self-esteem, (b) academic problems, (c) depression, and (d) peer rejection (NCASA, 2000).

While educators indicate that they are aware students use substances in school, many maintain that as long as the drug use does not interfere with the daily routine of
teaching or classroom management they should not report the use (Finn & Willert, 2006; Salm et al., 2011). Teachers indicate that they don’t report substance use because they do not want to wrongly accuse students (Finn & Willert, 2006; Salm et al., 2011). The educators also report that they are afraid of retaliation (DeWit, Timney, Silverman, & Stevens-LaVigne, 1996).

Educators believe that school is a social institution and has a limited responsibility to fix substance abuse problems (Anderson et al., 2007). It appears that teachers do not want to be involved in prevention, intervention, or rehabilitation, even though they express compassion for students with substance abuse issues (Salm et al., 2011). Teachers maintain that the classroom is a sacred space for learning (Lawson, 1999). They feel that students who do not participate in learning in the classroom need external supports outside of the classroom and that it is not the responsibility of the teacher to fix the problem (Lawson, 1999). Educators also report a sense of helplessness and hopelessness when dealing with students who use drugs and alcohol and they see these youth as doomed no matter what the teacher may do (Salm et al., 2011). With the increasing use of substances by adolescents (SAMSHA, 2012b) and the changing social and cultural norms within any given time period (Anderson et al., 2007) the helplessness and hopelessness of the educators is understandable (Lawson, 1999; Salm et al., 2011).

**Statement of the Problem**

Substance abuse is a national health problem (Botvin et al., 2003; Fowler & Tisdale, 1992; Moss, 2013). Research indicates that the overuse of substances (e.g., illegal drugs, prescription drugs, alcohol) affects the brain reward system, disrupting
normal activities and behavior (Koob, 2009). This is reflected in the 29% increase in emergency room visits between 2009 and 2011 for illegal drug usage (SAMHSA, 2012b). In 2011, an estimated 2.5 million emergency room visits were the result of substance misuse or abuse and 51% of these involved illegal drugs (SAMHSA, 2012b). When adolescents begin using drugs and alcohol, they become part of these statistics. For one year, the number of emergency room visits involving illegal drugs for individuals 20 years of age and younger was 186,270 and 166,812 visits for young adults ages 21-24 (SAMHSA, 2012b).

Substance use is an actuality in our high schools (Botvin et al., 2003; Fowler & Tisdale, 1992; Moss, 2013). National survey data indicate that 42% of 12th grade students have used marijuana and 57% have been intoxicated (Johnston et al., 2012). Students in special education use drugs and alcohol at a rate similar to their peers in general education (Taggart et al., 2007). Finn and Willert (2006) documented that 75% of students believe it is easy or very easy to obtain alcohol and 84% of students feel it is easy or very easy to obtain marijuana at school. While drug policies set by school districts and on-site educators are important, the attitudes of educators have more impact on the selling and use of drugs and alcohol at school (De Moor et al., 1992; Ludden & Eccles, 2007; Maehr & Midgley, 1996).

Substance abuse occurs across all economic, age, cultural, and ethnic groups, and this has a negative impact on the educational system as a whole (Fowler & Tisdale, 1992). The challenges of substance abuse to public education (e.g., decreasing attendance, declining academic achievement, increasing behaviors counterproductive to educational goals) are shown in the research (Crow, 1992; Salm et al., 2011). While
school districts have no tolerance drug and alcohol policies, the impact on overall student use is negligible (De Moor et al., 1992; Ludden & Eccles, 2007). Researchers have identified teachers in general and special education as being on the frontline to change student usage of illegal substances (Graham, Phelps, Maddison, & Fitzgerald, 2011).

The purpose of this study was to measure teacher (special and general education) attitudes concerning substance use and abuse. This study provides a starting point from which to understand teacher attitudes in relation to illegal drugs and alcohol. The specific research questions addressed in this study were:

**Research Question 1**: Do the attitudes of special education and general education teachers differ concerning the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness)?

**Research Question 2**: Do the attitudes of special education and general education teachers differ concerning the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness) across grade levels (e.g., K-5, 6-8, 9-12)?

**Research Question 3**: Do the attitudes of special education and general education teachers differ concerning the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness) by gender (male vs. female)?

**Significance of the Study**

The educational system in the United States is challenged with a variety of problems related to drug and alcohol abuse both inside and outside the school environment (Botvin et al., 2003; Fowler & Tisdale, 1992; Moss, 2013). Students who struggle with SUD often fail to meet their educational goals as the behaviors necessary
for success in school are affected by their SUD (APA, 2013; Fritz & Carroll, 1999; Salm et al., 2011; Schroeder & Johnson, 2009; Sekulic et al., 2012). The attitudes of teachers in general and special education concerning substance use and abuse may impact their ability to provide adequate anti-drug education. Therefore, it is necessary to understand their beliefs, as these often directly impact their attitudes about students and illegal drug or alcohol use (Finn & Willert, 2006; Ludden & Eccles, 2007; Salm et al., 2011). Current research focuses on drug use, both the quantity and the resulting problems (Finn & Willert, 2006). However, research in the area of teacher attitudes on this national problem has been neglected (Christian & Poling, 1997; Finn & Willert, 2006). Teachers deal with students on a daily basis and as the drug and alcohol culture changes, attitudes about drugs and alcohol also change (Anderson et al., 2007). The findings of this study contributes to the research base concerning current attitudes of general and special education teachers regarding SUD. Ultimately, the data collected can be used in the creation of a curriculum to train educators in this area.

**Definitions**

**Addiction/addicted.** Compulsive drug use despite harmful consequences, including changes to the brain structure (NIDA, 2012).

**Adolescents with disabilities.** Students who are eligible to receive special education services under the provisions of P.L.108-446, *Individuals with Disabilities Education Improvement Act* of 2004 (IDEA, 2004).
**Alcohol.** A drink containing ethyl alcohol or ethanol made from fermenting yeast, sugar, and starches. Common alcoholic beverages are beer, malt liquor, wine, and liquor (NIDA, 2012).

**Alcohol abuse.** Problematic alcohol use resulting in a failure to meet obligations at work, school, or home (APA, 2013).

**Alcohol problems.** The use of alcohol despite adverse consequences and distortions in thinking (APA, 2013).

**Alcohol withdrawal.** Symptoms that occur when a person who drinks too much daily, suddenly stops drinking. Symptoms include: (a) depression, (b) fatigue, (c) mood swings, and (d) nightmares (APA, 2013).

**Alcoholic.** A person who suffers from a chronic disease that is often progressive and fatal and is characterized by impaired control over drinking alcohol despite adverse consequences and distortions in thinking (APA, 2013).

**Anti-drug education.** Factual information about drugs and alcohol presented in classrooms, lectures, pamphlets, and short films encouraging abstinence from use of illegal substances (Botvin & Griffin, n.d.).

**Binge drinking.** Consuming five or more alcoholic drinks in one sitting (SAMHSA, 2012a).

**Coping.** Using drugs or alcohol to reduce the stress of life situations (Luke, Ribisi, Walton, & Davidson, 2002).

**Disease.** An allergy or medical condition (Luke et al., 2002).

**Drug abuse.** The illegal use of a controlled substance that results in failure to meet obligations at work, school or home (APA, 2013).
**Drug problems.** Drug use despite harmful consequences (NIDA, 2012).

**Drug withdrawal.** Symptoms that occur when a person stops or sharply reduces the chronic use of a drug (e.g., nausea, vomiting, evidence of weightlessness, muscular weakness, respiratory depression, coma) (National Institute on Drug Abuse [NIDA], 2014)

**Efficacy.** Internal feelings causing inability to regulate alcohol/drug use (Luke et al., 2002).

**Illegal drugs/substances.** Substances not used as directed (Controlled Substances Act, 1970).

**Lack of efficacy.** Internal feelings causing inability to recover without help from experts and professionals (Luke et al., 2002).

**Marijuana.** A dry mix of shredded green and brown leaves from the Cannabis Sativa plant. The main psychoactive chemical in marijuana is delta-9 tetrahydrocannabinol (THC) (NIDA, 2012).

**Moral weakness.** A limitation or failure that could be prevented by the use of stronger willpower (Luke et al., 2002).

**Prevention.** Measures to limit the availability of drugs as well as educational programs and societal changes to limit the risks associated with drug use (Bryan, Moran, Farrell, & O’Brien, 2000).

**Recovery.** A voluntarily maintained lifestyle characterized by sobriety, personal health, and citizenship (NCADD, 2014).

**Self-medication.** Medicating of oneself without professional supervision to alleviate perceived or real negative life experiences (Taggart et al., 2007).
**Substance use disorder.** The use of alcohol or the illegal use of a controlled substance so that it impacts a person’s ability to function at work, home, or school (Salm et al., 2011; Weinberg, 2001).

**Synthetic drugs.** An artificially produced drug with a slightly altered molecular structure to avoid classification as an illegal drug (Merriam-Webster Dictionary, 2013).

**Teacher attitudes.** The beliefs that teachers bring to the classroom that affect the social environment of the classroom (Maehr & Midgley, 1996).

**Therapeutic medications.** A prescribed medication that, when mixed with drugs or alcohol, creates complications (e.g., psychotropic, anticonvulsant drugs) (McCombs & Moore, 2002).

**Treatment.** An activity to improve the psychological, medical, or social status of an individual seeking help for their problem with drugs or alcohol (Bryan et al., 2000).

**Victimization.** Exploitation of an individual for personal gain: (e.g., money, food, control) (Taggart et al., 2007).

**Limitations**

Limitations of the study:

1. Data were collected via an online questionnaire. This may have impacted the participation rate, as no face-to-face contact occurred with the participants.

2. The questionnaire required participants to report their attitude about illegal substance use and alcohol usage. Because attitude is couched in social desirability, participants may have responded in a manner they felt they should, rather than the way they actually believed.
3. Educators who are interested in the topic may have been more likely to complete the questionnaire. Thus, the configuration of the population may have been a limitation of the study.

4. The questionnaire was developed using the *Addiction Belief Inventory* (ABI) (Luke et al., 2002) incorporating modifications suggested by researchers (Broadus, Hartje, Roget, & Cahoon, 2010). The reliability and validity of the resulting questionnaire may have changed due to the modifications made for this study.

5. Respondents were enrolled in graduate studies at a university. Therefore they may not represent the entire school district population of teachers.

6. The distribution of male and female respondents may skew the analytical results.
CHAPTER TWO
REVIEW OF RELATED LITERATURE

The Substance Abuse and Mental Health Services Administration (SAMHSA) (2012a) reported that over one million adolescents in the United States indicated they were dependent on illegal drugs (e.g., cocaine, marijuana, methamphetamines). Approximately one million adolescents also stated that they abused alcohol or considered themselves to be an alcoholic (SAMHSA, 2012a). Because of these data, drug and alcohol use and abuse continues to be a challenge for the public education system. It appears that the drug free school zone is not a reality (Salm et al., 2011). Society considers schools to be a safe haven for learning and developing, but too often drugs are in our nation’s schools (Salm et al., 2011). In a nationwide study, Finn and Willert (2006) found that students in middle and high school reported that drugs were available at their school. This availability may result in youth being more likely to use illegal drugs and alcohol (Finn & Willert, 2006).

Adolescent substance users are a heterogeneous group. They can be grouped by the risk factor subtypes of: (a) individual and family factors, (b) associated problems, and (c) substance use severity (Rowe, Liddle, Caruso, & Dakof, 2004). Adolescents and youth with disabilities who use and abuse substances are slightly younger, more likely to be male, non-White, and more likely to have mental health issues than adolescents and youth with disabilities without a substance abuse diagnosis (Slayter, 2010). Unfortunately, regular binge drinking and marijuana use are associated with negative
educational and employment outcomes for youth with disabilities (Hollar & Moore, 2004).

Success of anti-drug programs in the educational setting depends on the beliefs of teachers and administrators (Finn & Willert, 2006). Unfortunately, the biases of educators or administrators may influence the information transmitted from educator to student (Broadus et al., 2010). Recent research indicates that educators may benefit from understanding their personal beliefs about addiction and how their beliefs influence educational content and instructional practice (Broadus et al., 2010). However, the current research indicates a lack of information concerning the beliefs of teachers and administrators regarding substance abuse (Broadus et al., 2010).

Attempting to understand the attitudes and beliefs of teachers and administrators in the area of substance use and addiction begins with belief domains (Luke et al., 2002). A reliable and valid measure of addiction beliefs should incorporate five domains (Broadus et al., 2010; Luke et al., 2002). These domains are: (a) coping, (b) efficacy, (c) disease, (d) lack of efficacy, and (e) moral weakness (Broadus et al., 2010; Luke et al., 2002).

Factors Associated with Substance Use Disorders in Children and Youth

Social capital, family values, and expectations impact substance use of adolescents with and without disabilities (Curran, 2007). Risk factors for substance use can be offset with positive factors to assist youth in resisting offers of substances. These factors exist for adolescents with and without disabilities (Curran, 2007; Gress & Boss, 1996; Hanson & Chen, 2007).
Students Without Disabilities

It appears that the factors associated with substance use disorders are unique to each child/youth and the group or environment in which they live. Differing social and cultural practices create a divergence in substance use as well as the ability to resist the use of substances. Several factors have been identified as impacting whether or not a child/youth uses or abuses illegal or legal substances. These include: (a) social capital, (b) family financial resources, (c) parental attitudes, and (d) adult relationships (Curran, 2007; Ferguson & Xie, 2012; Hanson & Chen, 2007; Musick, Seltzer, & Schwartz, 2008).

Moon, Hecht, Jackson, and Spellers (1999) examined the resistance to drug offers by students and compared ethnicity, gender, and drug use. The purpose of the study was to validate earlier findings that showed ethnicity and gender were related to: (a) drug use, (b) type of drug offered, (c) how the drug was offered, and (d) how the offer of a drug was resisted. The participants in this study included African American, Latino, and White middle school youth. The student sample was 52.1% female and 47.9% male.

The data were collected using a 120-item questionnaire administered during school hours. The data collected included: (a) gender, (b) ethnicity, (c) whether the student had been offered drugs, (d) lifetime drug use, (e) drug use in the last month, (f) age of first drug use, (g) type of drug offer, (h) relationship between the student and the drug offerer, (i) location of the drug offer, and (j) resistance strategy.

Data from the questionnaires were analyzed using a multivariate analysis of variance (MANOVA) for ethnicity and gender and chi-square analyses to examine relationships between ethnicity and gender and the drug use/drug offer data. Univariate
analyses of variance (ANOVA) measured the variables that contributed to the multivariate effect of drug use. Logistic regressions were used to analyze interaction between ethnicity and gender.

The results of the analyses reported by Moon et al. (1999) showed that Latino youth had the highest levels of lifetime drug use and past month drug usage. African American and Latino boys had a lower age of initiation to drugs than did girls, while White girls had a lower age of initiation to drugs than White boys. Additionally, Moon et al. (1999) found that the type of drug used and where it was obtained depended on gender and ethnicity. Males were more likely to receive drug offers that appealed to their social standing and self-image while females received drug offers that minimized the negative consequences of the drug use.

Moon et al. (1999) concluded that differing social and cultural practices created a divergence in drug patterns. Latino youth were most likely to be offered drugs. In all cases, males were more likely to be offered drugs than females. The relationship of the drug offerer to the student greatly differed by ethnicity. African Americans were more likely to be offered drugs by a boyfriend, girlfriend, or parent. However, White youth were more likely to be offered drugs by an acquaintance. African American youth were more likely to be offered drugs in a park, White youth in a home, and Latino youth at a party. Moon et al. (1999) recommended that ethnic and gender training, specific to the culture of the youth, would be beneficial in drug prevention.

In a study designed to explore three factors, Curran (2007) examined the effects of social capital on the behaviors of high school youth. The purpose of the study was to:
(a) examine the relationship between social capital and substance use, (b) identify the most influential social capital predictors of substance use, and (c) determine if gender was a factor in the relationship between social capital and substance use.

The participants were students in grades 9 through 12 from two public high schools. The 590 participants were 14 years of age or older. The students were equally distributed across four grade levels: (a) 9th grade (27.5%), (b) 10th grade (26.4%), (c) 11th grade (24.4%), and (d) 12th grade (21.7%). The participants were 29.8% male, 50.2% female, and 20% unidentified. The students self-identified as: (a) 85.9% White, (b) 4.3% American Indian/Alaskan Native, (c) 2.9% Hispanic/Latino, (d) 1.7% African American, (e) 1.2% Asian American, (f) 0.5% Native Hawaiian/Pacific Islander, and (g) 3.6% other.

The data were collected using the Youth Risk and Protective Factor Survey (YRPFS) (Curran, 2007). The YRPFS is a 102-item questionnaire with 65 items focusing on risk and protective factors and 37 items asking about participation in high-risk behavior, including substance use. The questionnaire also included 10 questions about parental rules and expectations, 11 questions on human capital, 11 questions on family climate, and 7 questions on family connectedness. The drug and alcohol questions include: (a) 9 items on alcohol use, (b) 3 items on alcohol use in school, (c) 5 items on tobacco use, (d) 7 items on marijuana use, and (e) 11 questions on other drug use.

Multiple regression analyses were used to assess the relationship between social capital and substance use and to identify social capital variables of substance use for adolescents. The multiple regressions were applied on all four social capital variables (i.e., parental rules and expectations, human capital, family climate, family
connectedness) and a stepwise forward multiple regression was used to determine the order in which the social capital variables influenced the student substance use.

The results of the analyses by Curran (2007) showed statistically significant relationships between social capital (i.e., parental rules and expectations, human capital, family climate, family connectedness) and all five criteria: (a) alcohol use, (b) alcohol use in school, (c) tobacco use, (d) marijuana use, and (e) other drug use. Social capital items (e.g., family rules, expectations) were the main predictors of student substance use across all five criteria. Human capital and family climate were secondary predictors of student substance use.

Curran (2007) found a negative relationship between social capital and substance use. She concluded that as social capital increases there is a decrease in drug and alcohol use. For example, as parental rules and expectations increase, there was less substance use. Curran (2007) recommended further examination of the relationship between social capital and substance use. She maintained that schools should offer substance abuse/prevention programs in a natural environment to families and youth.

Hanson and Chen (2007) examined the socio-economic status (SES) of adolescents who reported that they used drugs and/or alcohol. The purpose of the study was to determine if an association existed between SES and substance use for adolescents and if different SES measurements resulted in different levels of substance use.

The participants in this study were 113 public high school students and their parents. The sample was comprised of: (a) 42% White families, (b) 56% African American families and (c) 2% other. The sample was economically diverse with:
(a) 21% of the students qualifying for the federal free lunch program, (b) 44% of the parents having college degrees or higher, and (c) families having incomes from $50,000-$74,999.

Data were collected from the parents using the *Hollingshead Four Factor Index of Social Status* (Hollingshead, 1975) for two SES measures: (a) family social status (e.g., parent education, parent occupation), and (b) family financial resources (e.g., family income, savings). The *Health Behaviors Questionnaire* from the Bureau of Labor Statistics (2000) was used to collect data from the students regarding their alcohol and drug use.

Data from the questionnaires were analyzed using simultaneous linear regression analyses to determine which type of SES indicators (e.g., parent education, parent occupation, family income, family savings) had the strongest relation with adolescent substance use. The regression analyses included both family social status and financial resources.

Results of the analyses found that family finances, but not social status, significantly predicted teen alcohol use. Family finances also were more predictive of drug use than family social status scores. The results of this study demonstrated that teens from high SES families reported more alcohol and drug use than teens from low SES families. Financial resources were more predictive of substance use behaviors than family social status.

Hanson and Chen (2007) concluded that family social status did not predict the likelihood of a child experimenting with drugs or alcohol. However, family financial resources were positively correlated with frequency of alcohol and drug use.
Hanson and Chen (2007) recommended that further research be conducted to determine the reasons why higher SES was related to higher alcohol and drug use among adolescents. They maintained that a better understanding of the factors contributing to teen substance use may reduce it (Hanson & Chen, 2007).

Musick et al. (2008) examined the influence of adults on teen substance abuse. The purpose of the study was to address neighborhood norms that affect drinking and drug use by teenagers as well as the relationship of those norms to social factors.

The participants in this study were 890 children, ages 12 to 17, from 65 of the 1,652 neighborhoods in Los Angeles County and 2,619 adults from the same neighborhoods. The parents of the participating children/youth were excluded to preserve the distinction between parental norms and neighborhood norms. Neighborhoods were stratified using the percentage of the residents living in poverty and whether the households included children under age 18.

In-person interviews were conducted in English and Spanish using computer-assisted, self-administered questions. The questions came from the Project on Human Development in Chicago Neighborhoods (PHDCN) (Sampson, 2012). The children/youth were asked about their substance use. The adults were asked about their beliefs regarding the behaviors of smoking, drinking, and drug use among children/youth as well as their own current or recent substance use.

Data from the interviews were analyzed using a hierarchical structure of linear models to examine the influence of neighborhood norms. Variables were analyzed from different levels simultaneously to correct for dependencies in the data due to clustering. The neighborhood norm for drug use was based on recent adult marijuana use.
Child-centered social control was the only dimension of collective efficacy studied. It was measured by averaging responses to three questions about the likelihood that neighbors would do something if children/youth were: (a) hanging out on a street corner during school hours, (b) spray-painting graffiti on a local building, or (c) showing disrespect to an adult. Musick et al. (2008) conducted a descriptive analysis to build complex hierarchical linear models (e.g., teenagers nested within neighborhoods) to examine the influence of norms on behavior and comparisons of neighborhood norms.

The data showed that the association between substance use by adolescents and the neighborhood attitudes and behavior was not statistically significant, whether examining beliefs and behaviors across neighborhoods or within a neighborhood. The influence of neighborhood norms on the drinking and drug use of the children/youth was not statistically significant whether or not they had significant social ties in their neighborhoods.

Musick et al. (2008) concluded that changes in neighborhood norms, as the result of bad behavior in the neighborhood, would not affect child/youth substance use as indicated by the hypothesized models in this study. They maintained that the assessment of child/youth substance use and neighborhood norms was not significant whether typical beliefs and behaviors or specific neighborhoods were examined. Musick et al. (2008) suggested that substance use may not be impacted by socioeconomic status or patterned by neighborhood norms. However, they felt it was possible that the relationship did exist and recommended the use of longitudinal data to further investigate these issues (Musick et al., 2008).
Ferguson and Xie (2012) examined the direct and indirect effects of risk factors (e.g., gang memberships, intimate partner violence, truancy) and protective factors (e.g., adult support) on substance use by school-attending youth who were homeless. The purpose of the study was to determine the influence of risk and protective factors on these youth as well as if the protective factors mediated and moderated the impact of risk factors.

The youth in this study were 2,146 homeless California high school students in two grades (e.g., 9, 11) who attended comprehensive or continuation schools. The participants lived in a variety of situations: (a) 964 lived in a shelter, (b) 1,130 lived in a car, van, park, or abandoned building, and (c) 52 lived in a shelter and on the street. The majority of the students (70.3%) were male. Over one-third were Latino (37.3%), 30.8% were White, 25.8% were African American, and 6.1% were other ethnicities (e.g., Asian American, American Indian, Native Hawaiian, Pacific Islander). The majority of the students (92%) attended comprehensive high schools and 8.1% attended continuation schools.

The data were collected using the California Healthy Kids Survey (CHKS) (California Department of Education [CDE], 2007) that was administered via paper-and-pencil. The proctors in the participating schools read the same introductory script and instructions to the participants. The data collected included risk factors (e.g., gang membership, partner abuse, truancy) and protective factors (e.g., adult support) as well as questions concerning substance use (e.g., type of drug, frequency of substance use).
The surveys were analyzed using frequency distributions, means, and standard deviations to describe the demographics and characteristics of the youth. Structural equation modeling (SEM) using the maximum likelihood parameter estimation on AMOS version 17.0 (Arbuckle, 2008) was used to test the theoretical model. Confirmatory factor analysis (CFA) was used to test the latent constructs (adult support and substance use). The four mediation criteria were: (a) the independent variable must predict the mediator, (b) the mediator must predict the dependent variable when the independent variable was controlled, (c) the independent variable must have a significant effect on the dependent variable, and (d) the Sobel test for mediation effects must be significant (MacKinnon, Krull, & Lockwood, 2000). These mediation criteria and the moderation effects of adult support were analyzed using SEM.

The results of the analysis by Ferguson and Xie (2012) revealed that greater substance use was reported by homeless youth who identified as gang members, had experienced partner abuse, and were truant. Substance use was reduced when the youth reported greater adult support.

Ferguson and Xie (2012) concluded that adult support in a community is a protective factor for high-risk youth, providing both tangible and potential support. Homeless youth who identified as gang members or experienced partner abuse were more likely to use substances than homeless youth who did not experience these risks. Support from caring adults in the community reduced the substance use of the youth in this study. Additionally, Ferguson and Xie (2012) found that the incidence of truancy was greater among homeless youth who used substances and this correlated with low levels of adult support or no adult support.
Ferguson and Xie (2012) recommended creating geographic stability for homeless youth in order to maintain the protective factor of adult relationships in the community and in the school. They also recommended longitudinal research to examine the relationships between substance use risk factors, adult support, and actual drug or alcohol use by students who are homeless.

The Substance Abuse and Mental Health Services Administration (SAMHSA) (2012a) annually collects data on substance use and the mental health of residents in the 50 states and the District of Columbia. The purpose of the 2010-2011 study was to provide states with estimates on the prevalence of drugs, alcohol, and tobacco use by geographic location and by age group. The participants in the 2010-2011 survey included 137,913 people, age 12 or older, residing in households and non-institutional group quarters (e.g., shelters, rooming houses, dormitories) and civilians living on military bases.

The data were collected using a survey managed by the Center for Behavioral Health Statistics and Quality (CBHSQ) (CBHSQ, 2013), under the supervision of SAMHSA. The survey was administered through face-to-face interviews with each participant at their residence.

The 2010-2011 survey included questions dealing with the past month and past year use of the following substances: (a) illicit drugs, (b) marijuana, (c) cocaine, (d) pain relievers, and (e) alcohol. Data also were collected on substance dependence, need for treatment, mental health issues, and depression.

Data from the questionnaire were used to develop response estimates based on census data provided by each state. Regional, state, and national estimates were reported.
with comparisons to prior years. The 2002 annual report was the baseline for both the national and state estimates. SAMSHA (2012a) estimated illegal drug use in the southern region of the United States impacts 9.2% of the youth and in the western region substance abuse impacts 11.8% of youth. SAMSHA (2012a) also estimated that 6.8% of adolescents in the southern region of the United States binge drink and 9% of the adolescents in the northeast binge drink.

The Substance Abuse and Mental Health Services Administration (2012a) did not draw conclusions or make recommendations based on the annual survey. However, the agency provided multiple tables and maps of the data for government agencies, universities, and businesses indicating that illegal drug use by over one million adolescents varies by geographic region SAMSMA (2012a).

A separate source of tables and maps of drug-related data was collected by the Drug Abuse Warning Network (DAWN) (SAMHSA, 2012b) through a public health system. The purpose of the DAWN program was to: (a) monitor trends in drug abuse, (b) identify new substances and drug combinations, (c) assess health hazards associated with drug abuse, and (d) estimate the impact of drug abuse on the Nation’s health care system.

The 2011 study included non-federal, short-stay, medical and surgical hospitals in the United States that had at least one emergency room open 24 hours a day. A multistage sampling design was used for the selection of the participating facilities. The data were collected by trained DAWN reporters in 233 hospitals and focused on 229,211 drug-related emergency room visits. In each hospital, all emergency medical records were reviewed to identify the hospital visits that resulted from recent drug use.
The data were used to estimate drug-related visits to hospitals by region. The estimates were based on type of substance (e.g., illegal drug, misuse of prescribed drugs, alcohol) and on treatment received (e.g., treated and released, admitted to intensive care or critical care unit, deceased prior to admission). For each type of substance and treatment received, estimates were made for each patient grouped by gender, age, and ethnicity.

The Drug Abuse Warning Network (2012) provided tables that compared the current year with data from previous years, allowing for visibility of trends. The DAWN (2012) provided information for government, health professionals, educators, and others for better understanding of the national current drug use and the trends in drug use based on hospital emergency room visits for drug related treatment. The data showed hospital visits related to cocaine use were 1.5 times greater in Denver than in Phoenix and heroin use was 4.3 times greater in Seattle than in San Francisco (SAMHSA, 2012b). The changes in substance use by geographic region indicate rises in synthetic drug use (SAMHSA, 2012b).

Children and youth without disabilities are impacted by a variety of influences as they grow into adulthood. These have been identified as social, cultural, and environmental (Curran, 2007). Because the journey from childhood to adolescence to adulthood is a multifaceted one, the research concerning substance use and abuse has focused on risk factors and positive protective factors (Ferguson & Xie, 2012). It appears that the results of current studies are somewhat mixed, with many researchers calling for longitudinal research (Musick et al., 2008) while others call for more research concerning the interaction of culture, ethnicity, age, and gender with protective factors (e.g., positive
adult influence) (Ferguson & Xie, 2012). With the myriad of substances now available to children/youth without disabilities, research must continue in this area taking into consideration the changes that are occurring in the substances themselves and in society both socially and politically.

**Students With Disabilities**

Students who receive special education services in school are exposed to substances similar to their peers in the general education settings (Gress & Boss, 1996). Research indicates that similarities exist concerning the age, gender, ethnicity, exposure, and use of drugs and alcohol for students with and without disabilities (McGillicuddy & Blane, 1999; Titus, Schiller, & Guthmann, 2008; Westermeyer, Kemp, & Nugent, 1996). However, there appears to be less research in this area that focuses on children/youth with disabilities specifically.

Gress and Boss (1996) studied the psychological and social pressures on students receiving special education services to determine their risk factors for substance use. The purpose of the study was to identify differences in substance use between students with disabilities and students in general education and to relate those differences to the characteristics and social fragility of students in special education.

The 4,114 students participating in this study were in grades 4 through 12 in public and non-public schools. Less than 1% of the students (371) identified as receiving special education services and 3,743 students identified as not receiving special services. The students were distributed across grade levels: (a) 47% intermediate (grades 4 through 6), (b) 15% junior high (grades 7 and 8), and (c) 38% high school (grades 9 through 12).
Data were collected using the *Chemical Abuse Reduction Through Research and Services* Survey (CARES) (Toledo/Lucas County, 1994) given to students attending 11 public and one non-public school. The survey included items on the frequency of use for seven substances during three time periods: (a) in the past year, (b) in the last 30 days, and (c) during the school day. The seven substances were cigarettes, alcohol, marijuana, cocaine, amphetamines, inhalants, and acid (LSD).

The responses were analyzed using mean frequencies for the seven substances and respective time periods by grade level. Mean frequencies for each set of variables were developed for each of four groups: (a) students with severe behavior disorders (SBH), (b) students with specific learning disabilities (SLD), (c) students with developmental disabilities (DH), and (d) students not identified as having a disability (NC). Comparisons of means were made using *t*-tests.

Gress and Boss (1996) found that the patterns of reported drugs and alcohol use among the students receiving special education services were different from the patterns reported by students in general education. Intermediate elementary grade students classified as having SLD and DH were more likely to have used acid in the last 30 days than students in the NC group. Among intermediate elementary students, those classified as having SLD used more marijuana than students classified NC and students with DH used less marijuana than their peers in general education. Among junior high school students, students with SLD and students with DH used less marijuana than did students in the general education environment. These findings were similar in high school with the students with SLD and DH using less marijuana than their peers without disabilities.
However, the data indicated that students with SLD used more acid than did the students in general education.

Gress and Boss (1996) concluded that the patterns of self-reported substance use were complex and that the results of the study may be impacted by a variety of factors. They concluded that the use of substances by intermediate elementary students with disabilities may be an attempt to present a ‘with it’ social image. They maintained that the less frequent use of substances by the high school students with disabilities may be their acceptance of their inability to attach socially with their peers without disabilities. That is to say, the early use was an attempt to be accepted and the lack of use at an older age indicated an insight that the usage would not affect social acceptance. Gress and Boss (1996) acknowledged the social fragility and cognitive differences of students with emotional and behavioral disorders, students with learning disabilities, and students with developmental disabilities. They encouraged the field to continue research in this area in order to better understand the differences in substance use and abuse for these populations.

Westermeyer et al. (1996) examined the similarities and differences between individuals with intellectual disabilities (ID) and substance use disorder (ID+SUD) and individuals with only substance use disorder (SUD-ONLY). The purpose of the study was to determine if individuals with ID+SUD were similar to individuals with SUD-ONLY in three areas: (a) family history of substance abuse, (b) individual history of substance abuse, and (c) severity of substance abuse.

The participants in this study were clients in university drug centers at two universities. The clients were classified: (a) ID+SUD, (b) SUD-ONLY, and (c) other
comorbidities. Only the ID+SUD and the SUD-ONLY groups were used in this study. The participants in the ID+SUD group were classified using the full-scale intelligence quotient (IQ ≤ 70), significant deficits in functional impairments, and the occurrence of reduced intelligence before the age of 18 years.

The participants completed the Modified Michigan Alcohol/Drug Screening Test (MMADST) (Selzer, 1971). Assistance in reading and understanding the MMADST was available to all participants. A trained clinical assistant gathered information on the history of substance use, administered the Substance Abuse Problem Scale (SAPS) (Westermeyer, Crosby, & Nugent, 1998), and recorded the family history for each participant.

The data were analyzed using t-tests and chi-square tests for the two groups (i.e., ID+SUD, SUD-ONLY). Logistic regressions were performed to identify the variables most useful in distinguishing differences in the two groups. Logistic models were compared using one model that included all of the predictors (e.g., family history of substance use, participant history of substance use) and additional models that included all of the predictors except the one under observation (e.g., family history of substance use without participant history of substance use).

Analysis of the data indicated that the ID+SUD group had two years less education and were less apt to have been married than the SUD-ONLY group. The two groups were similar in age and gender composition (2/3 male, 1/3 female). However, the ID+SUD group used alcohol, tobacco, and illicit drugs on significantly fewer days than the SUD-ONLY group. The subscales on the SAPS (Westermeyer et al., 1998), showed significant pathology for the SUD-ONLY group in the areas of addiction-related
behaviors and financial problems. Westermeyer et al. (1996) determined that participants who had a history of illicit substance use were 2.94 to 20.14 times less likely to have ID and those who had a father with SUD were 2.21 to 16.10 times more likely to have ID. Therefore, indicating a possible relationship between substance use and intellectual disabilities.

Westermeyer et al. (1996) concluded that the lifetime use of illegal substances was greater in the SUD-ONLY group than in the ID+SUD group. However, the ID+SUD group encountered problems and sought treatment more quickly than did the SUD-ONLY group. Similar severity of substance use was found in the two groups, suggesting that men and women with ID experience risk and exposure to substance use similar to that of the general population. Westermeyer et al. (1996) did not make recommendations for future studies, however they did acknowledge the lack of quantitative data in their study and the lack of understanding of family members regarding substance use among the participants.

Titus et al. (2008) conducted a study comparing youth with hearing loss and their presence in substance abuse treatment centers to youth in the same treatment centers who had no hearing loss. The purpose of this study was to create a profile for youth with hearing losses who entered substance abuse treatment.

The participants in the study included 4,167 youth (28% female) from substance abuse treatment centers. Some degree of hearing loss was reported in 2.8% (118 youth) of the participants. Two percent of the youth with hearing loss reported they were deaf and 98% reported limited hearing or other hearing difficulties. The average age of the participants was 15.7 years. The ethnic breakdown of the hearing loss group was: 50%
White, 15% Native American/Alaska Native, 13% African American, 13% Multiracial, 8% Latino, and 1% other. The ethnic breakdown of the hearing group was: 47% White, 18% African American, 13% Multiracial, 12% Latino, 7% Native American/Alaska Native, 2% other, and 1% Asian American.

Data were collected using the *Global Appraisal of Individual Need -I* (GAIN-I) (Dennis, White, Titus, & Unsicker, 2003). The GAIN-I (2003) is a comprehensive intake questionnaire covering eight life domains: (a) background and treatment, (b) substance use, (c) physical health, (d) risk behaviors, (e) disease prevention, (f) mental and emotional health, (g) environment and living situations, and (h) legal and vocational history. The GAIN-I (Dennis et al., 2003) typically was administered by a trained professional and took 90 minutes to complete. The questionnaire measured demographics, social environments, substance use, and psychological characteristics using yes/no items.

The data were analyzed using 2x2 Chi-square tests to compute the variances between youth with and without hearing loss. The results showed no significant difference between the hearing loss group and hearing group in the areas of demographics and social environment. The youth in the hearing loss group were more likely to have been victimized (e.g., physical, emotional, sexual abuse), run aways, or homeless. The participants with and without hearing loss did not differ in their overall weekly drug or alcohol use. However, youth with hearing loss initiated drug and alcohol use at a younger age than those with no hearing loss. They also reported using crack/cocaine on a weekly basis more often than those with no hearing loss. The youth with hearing loss were at greater disadvantage in all areas of psychological functioning:
(a) depression, (b) traumatic stress, (c) conduct problems, and (d) behaviors indicative of attention deficit hyperactivity disorder (ADHD). They also reported more problems with anxiety and suicidal/homicidal thoughts.

Titus et al. (2008) concluded that the profile of youth with hearing disabilities encompassed: (a) early onset of substance use, (b) elevated psychological profile, (c) greater severity of substance abuse, (d) placements in a residential setting, (e) criminal activity, and (f) victimization. Titus et al. (2008) recommended further research in the area of substance abuse among youth with hearing disabilities. They believed the research should focus on using a larger sample in various settings (e.g., educational, residential, mainstream). They also recommended that the field create and implement a substance abuse assessment tailored to youth who have hearing disabilities.

Slayter (2010) examined Medicaid claims data from 49 states and the District of Columbia to compare mental health diagnoses and substance abuse disorders among people with intellectual disabilities. Medicaid claims of 9,484 recipients with and without intellectual disabilities were examined. The Medicaid recipients ranged in age from 12 to 99 years old at the time their claim was initiated. The characteristics and history of substance abuse were compared between the Medicaid claims for recipients with and without intellectual disabilities.

Slayter (2010) used eligibility and claims data from the Medicaid Statistical Information Systems (MSIS) (Health and Human Services Department, Centers for Disease Control and Prevention; and Centers for Medicare and Medicaid Services [HHSD-MSIS], 2005). Intellectual disabilities were identified by International Classification of Diseases, Ninth Revision (ICD-9) diagnostic codes. At least one
occurrence of a diagnosis of substance abuse at any time during the year identified the subject as a substance abuser. Demographic variables of gender, age, and ethnicity were also extracted from the MSIS database.

Data were categorized using four clinical diagnoses: (a) developmental delay, (b) mental health issues, (c) serious mental health issues, and (d) chronic substance abuse disorders. A logistic regression analysis was used to analyze the data. Results of the analysis indicated that people with intellectual disabilities who abused substances were more likely to have developmental delays than people with intellectual disabilities who did not abuse substances.

Slayter (2010) concluded that people with intellectual disabilities who abused substances were more likely to be: (a) young, (b) male, (c) non-White, and (d) have mental illness than people with ID who did not abuse substances. Slayter (2010) recommended that mental health clinicians and teachers, working with people with intellectual disabilities and mental illness, be aware of possible substance abuse related social problems. She suggested that special educators be taught to screen for substance use and abuse for this population. She maintained that future research must include the applicability of treatment modules or curricula targeted for use with students with ID (Slayter, 2010).

Youth with disabilities experience substance use disorder similar to their peers without disabilities (Westermeyer et al., 1996). The risk factors for youth with disabilities appear to be similar to the risks for youth without disabilities. However, factors such as victimization tend to be prevalent for youth with disabilities (Westermeyer et al., 1996).
Factors associated with substance use disorder for youth with and without disabilities include risk factors and protective factors. Social capital, family values, and environmental conditions affect youth with and without disabilities (Curran, 2007). The Department of Health and Human Services collects data yearly showing the prevalence of substance abuse around the nation (CBHSQ, 2013; SAMHSA, 2012b). These data represent a yearly national snapshot of substance use and abuse across age groups, gender, ethnic groups, and disability groups. The goal of the collection of these data is to ascertain the types of services needed as well as the areas of the nation with the most need.

**Impact of Substance Use Disorders on Children and Youth**

Substance abuse impacts adolescents with and without disabilities (Taggart et al., 2007; Walls, Batiste, Moore, & Loy, 2009). They experience vocational, social, and academic problems as a result of their substance use (Hollar & Moore, 2004; Walls et al., 2009). Families also are impacted by the substance abuse of their children (Young, Dembo, & Henderson, 2007). Research concerning these relationships leads to a better understanding of the behavior of youth and the impact of substance use over time (Hollar & Moore, 2004).

Young et al. (2007) examined the prevalence of substance abuse services, including drug and alcohol education, throughout the juvenile justice system. The participants in the study were directors of juvenile institutional and community correctional facilities located throughout the United States. Residential facilities were selected from the American Correctional Association (ACA) 2003 national directory of 1,017 facilities. After excluding facilities with less than 25 residents and facilities that
were diagnostic/reception centers, group homes, or community correctional facilities, a sample of 408 institutions remained. Sixty-seven facilities were selected to participate in the study. Added to this sample were 165 community correctional facilities (including local juvenile jails). Out of the total of 232 facilities selected, 141 (59.5%) actually participated.

Young et al. (2007) gathered data from sources throughout the criminal justice and drug treatment systems using a multi-level survey developed by the National Criminal Justice Treatment Practices (NCJTP) (2007) addressing correctional services and treatment practices and policies. The data included the proportion of clinical staff to residents and the correctional programs offered (e.g., boot camp, day programs, work release). Educational programs, vocational programs, and therapeutic programs also were included in the data collected.

Simple descriptive analyses using weighted data, means, and medians were used to generate national estimates of prevalence, access, and duration of specific types of programs and services. Analyses were conducted separately for juvenile residential facilities, local jails, detention centers, and community correction offices and facilities.

Young et al. (2007) reported that across all facilities the use of standardized substance abuse assessment tools occurred 47.6% of the time. Core services of mental health counseling, life skills, communication skills, and anger/stress management skills were provided to 60% - 90% of the youth in the facilities and jails. Analyses of the services provided and the number of youth attending the programs indicated that although the youth attend educational programs, relatively few participated in drug and alcohol
programs. Large numbers of youth were not attending treatment programs on a daily basis.

Young et al. (2007) concluded that inconsistencies in terminology made the interpretation of survey responses difficult. They concluded that allocation of resources across the three facility types was not equitable. While educational services were provided daily to incarcerated youth, substance abuse programs occurred less frequently and were provided to a small percent of youth. Young et al. (2007) discovered little published data regarding incarcerated substance abusing juvenile offenders and recommended that this be studied further.

Walls et al. (2009) examined the rates of successful employment outcomes of individuals with either alcoholism or drug addiction who participated in the State/Federal Vocational Rehabilitation System. The purpose of the study was to investigate employment variables and workplace accommodation issues for individuals with substance abuse disorders.

The participants in the study were selected from archived individual case data of those dealing with drug or alcohol addiction. The individual cases were selected from two databases, the Rehabilitation Services Administration (RSA) (Rehabilitation Services Administration [RSA], 2006) and the Job Accommodation Network (JAN) (Job Accommodation Network Office of Disability Employment Policy [JAN], 2006). Client records in the RSA database (2006) included all applicants for State/Federal Vocational Rehabilitation Services who had a reported primary disability of alcohol abuse or drug abuse across all 50 states and the territories of the United States. The RSA records in this study included 36,529 clients from the year 2000 and 35,473 clients from the year 2004.
Case records from the JAN database (2006) included 1,365 cases concerning accommodations for individuals with substance abuse issues.

The data collected included: (a) demographic information, (b) primary disability (e.g., alcohol abuse, drug abuse), (c) services received (e.g., technical-school training, job-search assistance), (d) overall outcomes, and (e) occupational outcomes. The data were analyzed using descriptive statistics (e.g., frequencies, percentages).

Walls et al. (2009) reported that vocational rehabilitation and the values of gainful employment lead to substance abuse recovery. Regardless of gender, age, and education, over half the participants with alcohol problems and drug addiction achieved successful employment for 90 days or more. Walls et al. (2009) concluded that although half the clients benefited from the vocational training, almost half the clients did not benefit. Walls et al. (2009) recommended further research on additional services needed to assure that more clients gain or regain productive lives.

Students without disabilities who use and abuse substances risk having many social and economic problems as the result of their behavior (Pasch, Velazquez, Cance, Moe, & Lytle, 2012; Young et al., 2007). The academic, vocational, and social choices as well as the health of adolescents may be negatively affected through the use of alcohol and drugs. Learning more about the choices adolescents make and the relationships that affect their choices may lead to improved resources for these youth (Dishion & Owen, 2002; Guo et al., 2002; Sekulic et al., 2012; Walls et al., 2009).

Students With Disabilities

Substance use disorder impacts students with disabilities, affecting their education, employment, and social outcomes (Hollar & Moore, 2004; Taggart et al.,
Additionally, students with disabilities may experience mental health and behavior problems as the result of substance use (Taggart, McLaughlin, Quinn, & Milligan, 2006; Taggart et al., 2007). Behavior problems increase with continued substance use and individuals with disabilities often end up in the criminal justice system for offenses committed while using alcohol and or illicit drugs (McGillivray & Moore, 2001).

A study by McGillivray and Moore (2001) examined the knowledge about alcohol and drugs as well as the use of substances by people identified as having an intellectual disability. The purpose of the study was to explore the relationship between substance use and unlawful behaviors of people with intellectual disabilities.

The participants in this study were adults classified as having mild intellectual disabilities who were verbal and ranged in age from 17 to 46 years. They were evenly divided into two groups, those who had been involved with the criminal justice system (e.g., assaults, burglaries) and those who had not been involved in the criminal justice system. The participants in the two groups were similar in terms of their residential history, functional level, and socio-economic background.

Individual interviews were conducted with the participants. The interviews required 20 to 60 minutes to complete. The interviewer confirmed understanding of key terms and consistency of responses by repeating and reversing selected interview items. The comprehensive questionnaire was designed to measure knowledge of illicit drugs/alcohol and patterns of use. The first section of the questionnaire included 40 multiple choice questions concerning alcohol and drugs, including possible legal consequences and the affects substances have on thinking, feelings, behavior, and health. The second section focused on the amount and frequency of alcohol and drugs used by
the participant. The last section was administered only to the offender group and addressed the alcohol and illicit substance use at the time the unlawful behavior occurred.

Data from the questionnaires were analyzed using Spearman’s correlation and Pearson’s correlation to measure the relationships between the variables. Results showed significantly greater frequencies and significantly larger quantities of alcohol used by the offender group than used by the control group. The offender group had a significantly greater use of marijuana, with 23.3% of the group using marijuana daily. Similar results were found for inhalants. Amphetamines were used by 23% of the offender group. The comparison group had minimal exposure to illicit drugs. Seven participants in the comparison group reported infrequent use of marijuana, one had sniffed inhalants on a monthly basis, and one reported some use of amphetamines. McGillivray and Moore (2001) found that the offender group was more knowledgeable about the legal consequences of illicit drug use, the detrimental impact of drugs on health, and the impact of alcohol and drugs on thinking and behavior.

McGillivray and Moore (2001) concluded that offenders with intellectual disabilities differ from their non-offending peers in their knowledge and consumption of illicit substances. In this study, the participants involved in the criminal justice system used larger quantities of alcohol and illicit drugs at a more frequent rate than non-offenders. More than half of the participants in the group of offenders were under the influence of a substance at the time they committed the offense for which they were arrested.

McGillivray and Moore (2001) recommended that substance abuse programs for students with intellectual disabilities be tailored to meet the learning requirements of this
population. They also maintained that programs be developed to intervene at the outset of substance misuse for people with intellectual disabilities in order to minimize subsequent criminal justice involvement.

Hollar and Moore (2004) examined the long-term educational, employment, and social outcomes for students with disabilities who abuse substances. The purpose of the study was to ascertain the long-term educational, employment, and social effects of marijuana, cocaine, cigarettes, or alcohol on students with disabilities.

The participants in the study were 1,021 students identified as receiving special education services in school and who had used alcohol, tobacco, marijuana, or cocaine. Data were collected using the National Longitudinal Study (NELS:88) (2000). The independent variables of this study were binge drinking in the past two weeks and alcohol, marijuana, or cocaine use either during the participant’s lifetime, within the past year, or within the past 30 days. The educational dependent variables were: (a) grade point average, (b) core credits earned, (c) vocational credits earned, (d) dropout status, (e) graduation status, (f) post-secondary education, (g) high school diploma status, and (h) number of post-secondary institutions attended. The employment dependent variables were: (a) job satisfaction, (b) number of jobs held, (c) months unemployed, (d) monthly earnings, (e) occupational level, (f) hours per week in current job, (g) weeks worked, and (h) total personal income. The social dependent variables were: (a) age of first sexual relationship, (b) use of birth control, (c) marital status, (d) number of dependent children, (e) arrest record, (f) history of victimization, (g) smoking history, (h) use of alcohol, and (i) history of binge drinking.
The data were analyzed using analyses of variance (ANOVA) and chi-square analyses. There were multiple comparisons of dependent variables with the Bonferroni correction (Dunn, 1961).

Results of the study showed that youth with disabilities who engaged in binge drinking on a daily basis earned significantly fewer high school core credits, had a significantly lower grade point average, and were more likely to drop out of school than youth with disabilities who did not binge drink. Social outcomes for youth with disabilities who engaged in binge drinking were significantly poorer than their peers who did not binge drink. The students with disabilities who used cocaine had significantly fewer high school core credits and a higher drop-out rate compared to youth with disabilities who did not use cocaine. However, the results of the analyses showed no significant differences between cocaine users and nonusers on any of the social variables studied or on the work-related variables.

Hollar and Moore (2004) concluded that cigarette smoking, binge drinking, and marijuana use were negatively related to the educational success of adolescents and resulted in negative social outcomes, both of which can hinder long term life success. There was little relationship between substance use and employment outcomes.

Hollar and Moore (2004) recommended increased substance use education in schools for students with disabilities. They maintained that the programs should target the unique needs of students with disabilities (e.g., isolation, discrimination, easy access to prescription drugs). Their recommendations included a need for longitudinal national surveys that identify the presence or absence of disabilities and casual substance use versus severe use across private, public, and alternative schools.
Taggart et al. (2006) explored substance abuse by people with intellectual disabilities (ID). The purpose of this study was to describe how alcohol and drugs affect the health of individuals with ID.

The participants in the study were 67 people with ID and substance abuse problems. The participants were 41 men and 26 women ranging in age from 18 to 50+ years. Eleven of the subjects were identified as having borderline ID, 39 with mild ID, and 17 with moderate ID.

A questionnaire was sent to community teams working with people having ID. One member from each team filled out the questionnaire for the participant with ID. The three-part questionnaire collected information concerning: (a) the team member who completed the questionnaire, (b) the participant who misused drugs and alcohol, and (c) the type of substance misused and the affect substances had on the life of the participant.

Mean and percentage analyses were done on the data. All of the participants with ID reported misusing alcohol, 13 reported using illegal drugs or misusing prescription drugs, and one participant indicated an addiction to gambling machines.

The data indicated that the continued abuse of substances for 5 years or more was significantly greater for those who misused only alcohol compared to those who abused both alcohol and drugs. One third of the participants reported suicidal thoughts, 47 reported verbal aggression, and 30 reported physical aggression. Eleven participants reported overdosing on prescribed medication. Exploitation by others (e.g., sexual, physical, psychological, financial) was reported by 46.3% of the participants.
Taggart et al. (2006) concluded that substance misuse exists more often in individuals with borderline or mild ID than in individuals with moderate ID. The study also showed that substance misuse caused significant health and social consequences for these individuals. Taggart et al. (2006) recommended a need to re-examine existing services to insure that individuals with ID who may be misusing drugs or alcohol are identified.

In 2007, Taggart revisited the misuse of drugs and alcohol by people with intellectual disabilities (ID) (Taggart et al., 2007). The purpose of this second study was to examine the insights of 10 people with ID who misused drugs and alcohol in order to determine the impact the misuse of substances had on their life and to explore the services they had received.

The participants in the study were 10 individuals with intellectual disabilities, seven were females and three were males. The age range of the participants was 28 to 52 years, nine had mild ID, and one had moderate ID. Five participants lived independently, two lived with a family member, two lived in a supported living environment, and one in a residential facility. Four individuals had a psychiatric diagnosis of an affective disorder (e.g., depression, bipolar disorder, anxiety disorder) and three were thought to have an undiagnosed mental health problem. Seven individuals reported using only alcohol and three women reported using a mixture of alcohol, illicit drugs, and prescribed medications.

Data were collected using interviews. The adults were asked questions about the frequency of use and the type of substances they used. They also were asked questions
about the cause of their substance use and their thoughts concerning the effects it might have on their mind, body, or their friends. Each interview lasted 40 to 50 minutes.

In order to assure data integrity, five steps were taken. First, the recorded interviews were transcribed verbatim. Second, the social worker for each participant was asked to verify the truthfulness of the responses received from the participant. Third, the data were analyzed using thematic content analysis. Fourth, to authenticate key themes and subthemes the transcripts were reviewed by the three member research team. All disagreements were discussed. Last, an independent expert in the field of addictions reviewed themes and subthemes and highlighted those found in the addiction literature.

Results of the analysis showed that two main themes for the use of substances emerged. These were psychological trauma and social distance from the community. The data also indicated that the 10 participants received services for their substance abuse from community intellectual disability teams or from mainstream addiction services.

The qualitative analysis by Taggart et al. (2007) showed that individuals with ID misused a range of substances to self-medicate against life’s negative experiences, similar to their peers without disabilities. Taggart et al. (2007) concluded that current service providers failed to meet the substance misuse needs of individuals with intellectual disabilities. While no recommendations for further research were provided, there was the suggestion that community disability teams needed to be trained to dissuade their clients from the use of hazardous substances.

The impact of substance use on youth and adolescents with disabilities is similar to what occurs with their peers without disabilities (Hollar & Moore, 2004; Sekulic et al., 2012). Youth with disabilities who use substances have difficulties with educational
success, social success, and avoiding illegal offenses (Hollar & Moore, 2004; McGillivray & Moore, 2001; Taggart et al., 2007). Substance abuse programs must be modified to meet the needs of adolescents with disabilities (McGillivray & Moore, 2001; Taggart et al., 2007).

Substance use may hinder the long-term life success of individuals with and without disabilities (Hollar & Moore, 2004). It affects the social skills, vocational skills, and academic skills of adolescents with and without disabilities (Sekulic et al., 2012; Taggart et al., 2006; Walls et al., 2009). The rate of alcohol and drug abuse in schools indicates that there is a need for an intervention strategy to decrease the consumption of substances among adolescents with and without disabilities (Sekulic et al., 2012).

**The Constructs of Substance Abuse**

Luke et al. (2002) used confirmatory factor analysis and structural equation modeling to reveal five constructs pertinent to the study of substance abuse: (a) coping, (b) efficacy, (c) disease, (d) lack of efficacy, and (e) moral weakness. These addiction ideologies encompass the current diverse beliefs about addiction. The belief that substances are used or abused to cope with stressful situations is perceived to be a root cause of addiction. Efficacy is the belief that people with addiction problems cannot limit or restrict the amount of their alcohol/drug use, therefore their addiction problems continue. The disease construct has evolved from the belief that addiction is an incurable disease and that relief from the symptoms of the disease comes from total abstinence. Lack of efficacy revolves around the concept that people who are addicted cannot stop drinking alcohol or using substances without professional or para-professional guidance.
(e.g., medical professionals, therapists, treatment centers, recovery organizations). The belief that people with addiction problems are morally weak supports the concept that substance abuse is simply a willful behavior. These constructs provide valid measures of addiction beliefs to be used in assessing the beliefs of professional educators (Luke et al., 2002).

**Substance Abuse as a Coping Mechanism**

Gerrard et al. (2012) examined the use of substances as a coping mechanism. They labeled this risk factor as the Stress-Coping Theory. The purpose of the study was to determine why some African Americans who experience discrimination respond with health-impairing behaviors such as substance use while others do not.

The participants in this study were selected from the Family and Community Health Study (FACHS) (Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004). The FACHS study of health behaviors in African American families in rural communities and small metropolitan and suburban areas includes attitudes about health and stressful situations. The average age of the participants was 18.5 years. There were 139 participants, 88 females and 51 males.

The procedures for this study included: (a) giving participants one of three scenarios, (b) asking the participants to imagine themselves in the situation described, and (c) asking participants to think about how they would react. The three situations described typical life situations: (a) no-stress, (b) stress-only, and (c) discrimination. Gerrard et al. (2012) collected data using the *Brief Coping Inventory* (COPE) (Carver, 1997) questionnaire measuring the willingness of the participants to use drugs. Data
collected included past use of substances and participant responses to difficult or stressful events.

Analysis of the data included hierarchical multiple regression analyses to examine the coping and discrimination interaction on willingness to use substances, controlling for gender, age, and past use. The results indicated that the drinking and drug use of the participants was similar to the rates reported in national surveys by SAMHSA (2009). The willingness to use substances was higher in the group that experienced discrimination than in the other two groups of participants (i.e., no-stress, stress-only). Gerrard et al. (2012) also found a significant main effect for discrimination and a marginal main effect for coping.

Gerrard et al. (2012) concluded that the sense of being discriminated against is more likely to lead to substance use for African Americans who use substances as a coping mechanism. African Americans who do not support substance use as a means of coping with stress are not as likely to use substances as a solution for dealing with feelings of discrimination. They recommended that future research should explore the relationships between personality development and coping mechanisms for all groups of people.

Gregg, Haddock, Emsley, and Barrowclough (2014) examined the association between substance use and psychopathology using self-reported reasons for substance use. The purpose of the study was to explore the extent to which negative and positive reinforcements affect substance use and the relationship of these reinforcements to the variables of: (a) psychopathology, (b) coping strategies, and (c) problematic drug and alcohol consumption.
The participants were 221 undergraduate and postgraduate students at a university. The majority of the participants were undergraduate students. The average age of the participants was 22.9 years.

The data were collected using questionnaires and the participants were asked to make a list of the substances they had used in the past three months and state how often they used each substance. Participants also were asked to identify their preferred substance (e.g., the drug used the most in the past three months). The Alcohol Use Disorder Identification Test (AUDIT) (Saunders, Aasland, Babor, De la Fuente, & Grant, 1993) was used to determine if the alcohol consumption had become hazardous to the health of the participants. The Drug Abuse Screening Test (DAST) (Skinner, 1982) was used to determine drug use consequences. The Reasons for Substance Use in Schizophrenia Questionnaire (RESUS) (Gregg, Barrowclough, & Haddock, 2009) was used to assess the reasons the students used their preferred drug. The RESUS (2009) contains 40 questions that describe situations in which people might use drugs or alcohol. Participants were asked if they ever used drugs or alcohol in any of the situations: (a) never, (b) sometimes, and (c) often or almost always. The COPE (Carver, 1997) was used to address coping strategies of the participants.

The data were analyzed using a structural equation modeling (SEM) software. Results of the analysis indicated that three quarters of the participants used substances when feeling stressed and half reported using alcohol or drugs when feeling anxious or tense. Very few participants reported using substances for reasons related to psychosis (e.g., hearing voices) or feeling suspicious/paranoid.
Gregg et al. (2014) concluded that coping mechanisms for substance use were positively associated with the quantity of alcohol consumed and negatively associated with the frequency of alcohol use. They believed this indicated that those who drank to cope were binge drinking. Gregg et al. (2014) recommended that further studies focus on the circle of escalation and maintenance of substance problems.

**Substance Abuse as an Efficacy Need**

Burling, Reilly, Moltzen, and Ziff (1989) examined self-efficacy among inpatients of a Veterans Administration drug and alcohol program. The purpose of the study was to determine five efficacy facts for people who abuse alcohol and drugs. These were: (a) the difference between the self-efficacy of people who abuse alcohol and those who abuse drugs, (b) the increase of self-efficacy during inpatient treatment for people who abuse drugs and alcohol, (c) the rate of relapse following treatment for patients with high self-efficacy and those with low self-efficacy, (d) self-efficacy ratings for patients who relapsed and the ratings for patients who abstained, and (e) identification of the circumstances around relapse by the patient.

The participants in the study were male substance abuse patients who were residents in the treatment center of a Veterans Administration Medical Center between October 1984 and June 1987. The participants included 262 White Americans, 120 African Americans, 30 Latino Americans, 4 Asian Americans, and 3 Native Americans. The average age of the participants was 33 years. The patients used a variety of substances: (a) 181 used alcohol, (b) 96 used cocaine, (c) 80 used heroin, (d) 31 used amphetamines, (e) 24 used marijuana, and 7 used other substances (e.g., PCP, glue).
The data were collected during intake interviews and at monthly intervals during the inpatient treatment using the *Situational Confidence Questionnaire* (SCQ) (Annis, 1982). The 100-item questionnaire asked participants to estimate on a 0% to 100% scale their confidence that they could avoid relapse in each situation presented. A confidence level of 0% indicated that the participant had no confidence that he could avoid relapse in the described situation and a confidence level of 100% indicated that the participant was absolutely certain that he would avoid relapse. Follow-up data were collected from a subgroup of 81 patients who were interviewed and asked to complete an additional self-efficacy questionnaire either at the hospital, by telephone, or by mail.

Burling et al. (1989) analyzed the data using an ANOVA as well as Spearman nonparametric correlations, *t*-tests, and Chi-square analyses. Results indicated a significant relationship between the number of days in treatment and the SCQ (Annis, 1982) scores. Significant main effects were observed across assessments for the SCQ (Annis, 1982), the number of no-confidence ratings, and a significant interaction effect was observed for the SCQ (Annis, 1982). Meaning that, the high self-efficacy at intake could be used to predict relapse.

Burling et al. (1989) concluded that the direction of the correlation indicated that patients with lower SCQ (Annis, 1982) scores remained in treatment longer. Those with a low number of no-confidence ratings tended to leave the program under negative circumstances while patients with a high number of no-confidence ratings tended to leave the program under positive circumstances. Examination of the SCQ (Annis, 1982) indicated patients who relapsed and those who abstained did not differ significantly at intake, however abstainers showed a significant increase on the SCQ (Annis, 1982) scale.
during treatment whereas those who relapsed did not. Burling et al. (1989) maintained that these findings indicated that patients with high self-efficacy at intake had unrealistic attitudes and were least interested in treatment.

Burling et al. (1989) concluded that SCQ (Annis, 1982) scores increased with treatment and were higher among patients who abstained than patients who relapsed. Low SCQ (Annis, 1982) scores at intake were positively related to two measures of treatment outcome, longer residence in treatment and better conditions at discharge. The data in the study supplemented the existing self-efficacy literature and also raised questions with respect to validity of self-efficacy reports. Burling et al. (1989) noted that future research should measure the degree of treatment implementation and the method used for matching patients to treatment.

Schell, Orlando, and Morral, (2005) examined the temporal relationships among treatment dosage, substance use severity, drug resistant self-efficacy, and perceived need for treatment (PNT). The purpose of the study was to evaluate the reciprocal causal relationships between treatment, substance use severity, self-efficacy, and PNT among adolescents receiving residential or outpatient substance abuse treatment.

The participants in the study included 476 youth receiving residential drug treatment in Adolescent Treatment Models (ATM) programs. Also included were 519 youth receiving out-patient adolescent marijuana treatment at Cannabis Youth Treatment (CYT) centers.

Data were collected from both groups using the Global Appraisal of Individual Needs-Initial (GAIN-I) (Dennis, 1998) administered by local interviewers. Baseline data were collected within 7 days of admission to residential treatment and prior to treatment.
for out-patient participants. Subsequent interviews at three, six, nine, and 12 months were conducted using the follow-up instrument the *Global Appraisal of Individual Needs* (GAIN) (Dennis, 1998).

Data were analyzed using covariance structural modeling with cross-lagged path analysis to examine the temporal relations among the participants’ substance use problem index (SPI), drug treatment exposure (TX), low drug-resistance self-efficacy (LSE), and perceived need for treatment (PNT). The results of the analysis indicated that the two samples of adolescents did not differ with respect to age, however the residential group had a larger proportion of females. The residential sample had more serious drug problems as determined by their significantly higher rates of drug use during the year prior to the study for all types of drugs except marijuana. The standard coefficients for low drug-resistance self-efficacy showed no significant difference between the residential group and the outpatient group. Relationships between SPI, TX, LSE, and PNT supported self-efficacy beliefs and the perception that treatment was helpful. The participants with a high drug problem index had lower self-efficacy beliefs. Those who believed treatment was helpful developed lower self-efficacy. Higher levels of drug treatment exposure preceded increases in perceived need for treatment in both groups.

Schell et al. (2005) concluded that reciprocal relationships exist among drug problems, drug treatment, perceptions of a need for treatment, and drug-resistance self-efficacy for adolescents undergoing treatment. Drug problems lead to reduced resistance self-efficacy which then leads to increased drug problems. Schell et al. (2005) concluded that believing treatment helped, increased the utilization of treatment and decreased drug problems. Schell et al. (2005) suggested that future research consider methods for
corroborating data sources to bolster the self-reported data concerning treatment utilization and substance use problems.

**Substance Abuse as a Disease**

Israelstam and Sykora (1988) examined the controversy regarding the viewpoint that alcoholism is a disease. The purpose of the study was to determine the opinions of specialists in the field of alcohol treatment (e.g., disease, moral weakness, genetic condition). Seven constructs of alcoholism were studied: (a) disease, (b) moral weakness, (c) genetic disposition, (d) multi-faceted syndrome, (e) physiological weakness, (f) allergy, and (g) learned behavior.

The participants were 494 people in the field of alcohol treatment. The age range of the participants was from 20 to 71 years. The vocations of the participants varied with 247 being counsellors, 93 being supervisors, 28 being consultants, 50 being nurses, 15 being assessment workers, 57 being physicians or therapists, and 4 being volunteers.

The participants were asked to respond to questions regarding alcoholism and the seven constructs: (a) disease, (b) moral weakness, (c) genetic disposition, (d) multi-faceted syndrome, (e) physiological weakness, (f) allergy, and (g) learned behavior. They responded by circling a number on a 7-point Likert scale ranging from 1-totally agree to 7-totally disagree.

To obtain the mean and standard deviation for all concepts the raw 7-point score was used. To understand how the concepts related to each other Pearson correlations were obtained from the raw scores of all pairs of variables. When age of the participant was combined with the pairs of variables, an ANOVA was used to analyze the three variables. If a significant difference was found between the three groups, *The Student,*
Newman, and Keuls (SNK) multiple comparison procedure was used to determine which subgroup was responsible for the difference.

The results indicated positive correlations between disease and two constructs, genetic and allergy. A positive correlation also was found among learned behavior and moral weakness, physiological weakness, and multi-faceted syndrome. The largest positive correlation was between moral weakness and physiological weakness. The only negative correlation was between the constructs of disease and learned behavior, supporting the belief that alcoholism is a disease or a behavior, but not both.

The majority of the participants believed that alcoholism is a multi-faceted syndrome. Israelstam and Sykora (1988) concluded the participants found categorizing alcoholism to be a complicated issue. The only group to consistently reject the disease concept was the group of people with doctorates. Israelstam and Sykora (1988) did not recommend areas for future research, however they did recommend research continues as opinions regarding alcoholism as a disease continues to change.

Moyers and Miller (1993) explored the attitudes and beliefs of therapists regarding the cause of alcoholism, the moral character of people who abuse alcohol, and the role of the person in recovery. The purpose of this study was to investigate the impact of the disease model on beliefs.

The participants in the study included 170 people in the field of alcohol and drug addiction, 33 therapists treating patients, 61 students taking drug and alcohol classes for counselors, and 76 treatment providers who responded to a mailed questionnaire. Forty-five percent of the sample self-identified as recovering from addiction to alcohol or another drug.
Participants were asked to complete the *Understanding of Alcoholism Scale* (UAS) created by Moyers and Miller (1993) for this study. The UAS is a 50-item questionnaire designed to assess beliefs about the etiology of alcoholism. The scale also included questions that assessed beliefs about the character of people with addiction problems and the desirability of recovery for effective treatment. The participants answered the 50 questions using a 5-point Likert scale, ranging from 1- weakest agreement to 5- strongest agreement.

The data were analyzed using a set of multiple regression equations. The results indicated that therapists, who highly endorsed the disease model of addiction, had a tendency to pursue their own treatment goals for the client rather than those desired by the client. Therapists who strongly believed in the disease model of addiction were less likely to offer controlled drinking as a recovery option to their clients.

Moyers and Miller (1993) concluded that the traditional beliefs of the disease model of addiction, recognized and endorsed by treatment providers, had changed little since the early Jellinek description of this model (Jellinek, 1952; Jellinek, 1960). Moyers and Miller (1993) found that all items reflecting moralistic and negative character attributes appeared to be intertwined with the traditional disease model. The therapists who endorsed the disease model tended to believe that people with addiction problems: (a) were liars, (b) could not make good decisions, (c) had personal deficiencies before they started using substances, (d) had spiritual deficits, and (e) needed strong confrontation. These beliefs are reflected in the moral model of addiction.

Moyers and Miller (1993) maintained that the findings of this study suggested an amalgamation of the disease and moral models of addiction. The treatment providers in
this study tended to support an amalgamation of the disease and moral models similar to beliefs of the general public. They also concluded that the recovering therapists may endorse the amalgamated disease concept because their life experiences gave them a wider view of the problem of addiction or because of indoctrination during their own treatment. Moyers and Miller (1993) recommended further studies of the conceptual models that guide treatment providers in their treatment judgments, choices, and outcomes.

Palm (2004) examined the responsibility of the individual in connection with their alcohol and drug dependency. The purpose of the study was to show how the staff in a treatment facility viewed the responsibility of the individual in connection to drug and alcohol problems and the effect of these attitudes on treatment.

The staff in a health-based treatment facility for alcohol and drug problems participated in this study. The treatment system included detoxification units, local outpatient clinics, and methadone treatment units. Staff who worked with alcohol and drug problems in the social service system also participated in this study. A total of 918 employees participated in the study, 344 from the health system and 574 from social services.

Data were collected using a questionnaire with items asking about treatment, the treatment system, their workplace, their view of the patients, and the problems of their patients (Room, Palm, Romelsjo, Stenius, & Storbjork, 2003). Palm (2004) focused on the questions pertaining to individual responsibility for alcohol and drug problems and questions about the nature of alcohol and drug problems. The participants answered questions using Likert-type responses: (a) 1-not responsible, (b) 2-partially responsible,
and (c) 3-fully responsible or (a) 1-agree completely, (b) 2-agree partly, (c) 3-disagree partly, and (d) 4-disagree completely.

The data were analyzed using Pearson’s correlation matrix. A positive significant relationship was found between the social and moral statements. The disease and social statements showed a negative and significant correlation, but no significant correlation was found between the disease and moral statements. Approximately one half of the participants agreed to both the disease and social statements and 21% agreed to the disease and moral statements. Palm (2004) found a significant difference in the views on drug problems. A person dependent on drugs was more likely to be seen as responsible for becoming dependent and less likely to be seen as responsible for recovering from their dependency than a person addicted to alcohol.

Palm (2004) concluded that the majority of the staff viewed the individuals in treatment as partially responsible for their alcohol and drug problems and fully responsible for solving their problems. The respondents overall supported the fact that alcohol and drug problems are a disease, however the social services staff supported the social problem theory. Palm (2004) concluded that the models seemed more useful when describing trends in different societies or at a macro level. Palm (2004) recommended future studies focus on the inconsistencies in the views of staff working in treatment centers in order to ascertain the origin of their beliefs and the impact of these beliefs on their patients.

Rassool, Villar-Luis, Carraro, and Lopes (2006) examined drug and alcohol addiction and the impact of it on society in terms of physical problems, social problems,
economic problems, and legal problems. The purpose of the study was to examine the
knowledge and attitudes of undergraduate nursing students towards substance misuse.

The participants in the study were 227 undergraduate nursing students. Data were
collected using The Nurse Education in Alcohol and Drug Education Faculty Survey
(NEADA, 1995), a 30-item survey. The participants completed the survey using a 5-point
Likert scale: (a) 1-Strongly Agree, (b) 2-Agree, (c) 3-Not Sure, (d) 4-Disagree, and
(e) 5-Strongly Disagree. The five categories were combined into three major categories:
(a) Agreement (Strongly Agree and Agree), (b) Not sure, and (c) Disagreement (Strongly
Disagree and Disagree).

The data were analyzed using non-parametric statics. The findings indicated that
59% of the nursing students regarded alcoholism as a genetic disease, 89% did not view
alcohol misuse as a moral weakness, and that it was not an invasion of privacy to ask
patients about their alcohol and drug use. Two hundred sixteen participants viewed early
diagnosis as a predictor of successful treatment for alcohol misuse.

Rassool et al. (2006) concluded that even though the nursing students had
opinions about drug and alcohol use, their basic education about drugs and alcohol was
inadequate. Rassool et al. (2006) recommended that future research should involve
exploring the attitudes, beliefs, and competencies of undergraduate nurses who
themselves misuse drugs and alcohol.

**Substance Abuse as a Lack of Efficacy**

Blomqvist (2002) examined data regarding people who recovered from substance
use problems without professional assistance and compared the differences between
alcohol and drug unassisted and assisted recovery. The 96 participants in the study

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included 25 participants who recovered from drug use without professional help, 23 who recovered from drug use with professional help, 28 who recovered from excessive alcohol use without professional help, and 20 who recovered from excessive alcohol use with professional help.

All participants were screened by telephone and each person who met the inclusion criteria and agreed to participate received a letter of consent and a description of the research. All participants who returned the letter of consent were mailed a questionnaire. The questionnaire was intended to be used as a recall aid during the data collection interviews regarding the drinking or drug use histories of the participants (Sobell, Cunningham, & Sobell, 1996). The questionnaire included: (a) a check list of stressful life events, (b) the recall of harmful drinking and drug use consequences, and (c) a year-by-year screening of the severity of the substance misuse. The data collection interviews included three sessions. The first session included a 10-minute introductory summary of the participant’s life story. They were asked to give spontaneous autobiographical accounts involving the role of alcohol or drugs in their life. If the interviewee had stopped using substances, they were asked to disclose how they had resolved their drinking or drug problem. Subjects also were asked for a concluding 5-minute summary of their current recovery solution. In the second session, the participants completed a modified version of the Lifetime Drinking History (Skinner & Sheu, 1982) questionnaire to assess their drinking patterns and asked to define their drinking and abstinence patterns. In the third session, the consequences and life event forms were reviewed and evaluated. Finally, participants who recovered with
professional help were asked for detailed accounts of their treatment experience. All interviewees were asked about their perceived risk of relapse and future life prospects.

The data were analyzed using an ANOVA to examine differing drinking and drug patterns between groups over time, including average drinking frequency and average drinking consumption per day. Simple paired t-tests indicated a continuous increase, during the last 3 years, in alcohol use by the group who recovered with professional assistance. Whereas, those who recovered without professional help actually reduced their drinking during the last year.

Blomqvist (2002) concluded that all participants who had recovered from their substance use problems experienced improvements in their living conditions. This occurred at different times during their recovery both for those who experienced professional assistance and those who recovered without assistance. The motivation for recovery was often influenced by a combination of positive and negative incentives. Initial recovery without assistance was often related to resolution of work or financial problems and recovery with professional assistance was often initiated by rock bottom experiences.

Blomqvist (2002) recommended future research be conducted to address the common double standard regarding drinking and drug use among men and women. This research should include a separate analysis for men and women.

Substance Abuse as a Moral Weakness

Ronzani, Higgins-Briddle, and Furtado (2009) examined the stereotypes and moral attributions concerning alcohol and drug usage. The purpose of the study was to confirm the theory that alcohol and drugs are morally judged behaviors more often than
other health conditions (e.g., obesity, depression, schizophrenia). The hypothesis was that this moral judgment made it more difficult for health professionals to work with the person who abused substances.

The participants in this study were 609 public health professionals. The majority of the participants were female and were community health workers, nursing assistants, nurses, physicians, dental care professionals, social workers, psychologists, technicians, and students.

The data were collected using a self-administered set of questions from the *Judgment Scale Regarding Alcoholism* (Babor et al., 1986) that included five stereotypical statements. The scale uses Likert-type responses from 1-strongly disagree to 7-strongly agree. The five statements were: (a) alcoholism is a sign of weakness in character, (b) alcoholics do not care about their problems, (c) alcoholics are morally weak people, (d) alcoholics are people with no will-power, and (e) alcoholics do not want to quit drinking. There also were two questions regarding a person’s responsibility for their appearance and/or the development and resolution of their medical condition. The final question concerned the personal difficulty health care professionals had dealing with patients who abused alcohol.

The data were analyzed using descriptive analyses that included frequency, percentage, mean, and standard deviations. A Chi-square test was used for the comparison of the distribution between groups and variables.

The results of the analysis showed a statistically significant difference when comparing the moral judgment among professional categories in relation to people labeled as alcoholics. The nursing assistants scored highest on the judgment scale and
physicians scored lowest on the judgment scale. The age of the individuals affected their judgment, with older professionals having greater moral judgment. Analysis of the difficulty in dealing with patients with alcohol problems and moral judgment showed no significant difference.

Ronzani et al. (2009) concluded that nurses and nurse assistants demonstrated high levels of moral judgment concerning alcohol abuse. They concluded from this finding that the sociocultural elements involved in the judgments made by care givers, impact the care of patients or the exclusion of patients from care by health professionals. Ronzani et al. (2009) recommended that further research be conducted to establish adequate strategies for changing the attitudes of health professionals in order to improve the quality of service for users of alcohol and other drugs.

The five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness) provide a basis for understanding substance abuse addiction. These constructs have been used in analysis of alcohol and drug problems of students with and without disabilities, juveniles in the justice system, veterans, nurses, and others. As the drug culture changes the beliefs of these constructs will change; it is important that the field of education be cognizant of these changes in order to provide appropriate interventions for all students within educational settings.

**The Attitudes of Professional Educators Toward Substance Use**

More studies concerning substance use have been conducted with general education teachers than with special education teachers or administrators. The available studies show most teachers believe it is their responsibility to educate students who are
able to learn and to provide an atmosphere suitable for learning, rather than to solve substance use problems (Salm et al., 2011; Van Hout & Connor, 2008). However, students with substance use problems are interfering with the learning environment (Salm et al., 2011). Therefore, teachers need adequate training on substance use and the support of the administrators in order to effectively deal with the substance use of their students (Finn & Willert, 2006; Van Hout & Connor, 2008).

**The Attitudes of General Education Teachers**

Substance use among children and adolescents causes problems in America’s schools (Finn & Willert, 2006). Many general education teachers feel it is not their responsibility to solve the problem of substance use among students, however these teachers are in classrooms with the students who are using substances and causing a variety of problems (Salm et al., 2011; Van Hout & Connor, 2008). Teachers need to know that they have the support of the administrators, and that they are working together, when dealing with the problems of substance use in schools (Finn & Willert, 2006).

The purpose of the Finn and Willert (2006) study was to examine the problem of drugs at school from the perspective of teachers through an analysis of teacher reports. The study was based on two premises, drugs are a significant problem in schools and teachers play a key role in detecting and responding to student substance use at school. The participants in the study were 103 teachers in middle schools and high schools. The teachers were either physical education or health education teachers.

Data were collected using a questionnaire. The teachers completed the questionnaire during a one-day professional development session. The 64-item questionnaire included items about the drug problems in schools. The categories of
questions asked were: (a) drug use in the classroom, (b) actions taken when students used drugs at school, (c) student drug use interfering with teaching, (d) extent of drug problems in school, and (e) knowledge of school drug policies.

Data were analyzed using categorical comparisons of the teacher responses to responses from high school students taken from the *CASA National Survey of Teens, Their Parents, Teachers, and Principals* (Califano & Booth, 1997). The data also were compared to a large-scale study of school substance use conducted in the same school district (Finn, 2006).

The results of the analysis showed that teachers and students estimate student drug use at about the same level. Students reported that 6% of their peers had used drugs or alcohol on school property, while 50% of the teachers believed that less than 10% of the students used drugs and alcohol at school. Seventy-one percent of the teachers reported that drugs were sold in schools and this was consistent with a district study that indicated 75% of the students could get alcohol at school and 84% could get marijuana at school. Teacher reaction to student substance use included: (a) reporting the student to the principal, (b) reporting the student to the office, (c) talking to the student, and (d) contacting the parents.

Finn and Willert (2006) concluded that student drug use was not confined to weekends and evenings. The use of illegal substances by students while at school presented educational issues for teachers. The study revealed two areas in which school systems could support teachers concerning student substance use. First, make school drug policies and practices clear to teachers so that all policies and practices were fairly and uniformly enforced. Second, increase administrative presence so that teachers were clear
about the support they could expect from administrators. No future research was recommended.

Van Hout and Connor (2008) examined the perspectives of teachers in Ireland regarding student substance use. The purpose of the study was to provide an anecdotal picture of student substance use according to the experiences of teachers in the secondary setting.

The participants in the study included 95 teachers from 10 randomly selected schools. The schools included vocational and secondary schools in areas with high poverty, secondary schools in non-poverty areas, youth training centers, and mixed/single sex private schools. Teachers from all grades were sampled randomly from each school.

The data were collected using the interview process. The interview questions pertained to: (a) experience with substance use within the school setting, (b) knowledge and being able to recognize substance use in students, (c) awareness of school alcohol and drug programs, (d) attitude toward substance misuse and drug education, (e) awareness of drugs available, and (f) understanding of drug related services in their area. All interviews were coded to ensure confidentially.

Data from the interviews were analyzed using thematic procedures developed by Zemke and Kramlinger (1985). This analysis consisted of generating a list of key ideas, words, phrases, and verbatim quotes. These key ideas were broken into categories and, in each category, the most frequent subtopic was used to illustrate the various categories.

Results of the analysis indicated that substance use among Irish students was a regular occurrence impacting academic performance, causing classroom disruption, and draining educational services. The majority of the teachers reported that substance abuse
by adolescents was increasing. The teachers also noted that there was increased access to a wide variety of substances, substance use was more socially acceptable, youth had more disposable income, and the prices of substances were declining. The teachers commented about the need for information and specific training. However, they believed it was not their job as educators to address student substance abuse issues.

Van Hout and Connor (2008) concluded that drug education in schools was haphazard, dissimilar, and “hit or miss”. Van Hout and Conner (2008) did not recommend future research, but emphasized the need for community, public health, and educational settings to work together to create uniform drug awareness programs to reach a greater target audience, including students, parents, and at-risk youth who may not attend school programs.

Salm et al. (2011) examined substance abuse in schools. The purpose of their study was to examine the prevalence of substance abuse in a rural Canadian high school. The study also examined teacher understanding of student learning in relation to substance abuse.

The 185 participants in the study included 20 staff members and 165 students from a rural Canadian high school. The staff members included administrators, school counselors, teachers, and educational assistants. Data from the staff members were collected using interviews. Three questions guided the interviews: (a) the effect of student substance abuse on the decisions made in regards to instruction, evaluation, and relationships, (b) examples of problem solving methods used in substance abuse situations, and (c) supports or resources needed for students with addiction issues. The 43-item student questionnaire included items on: (a) school attendance, (b) academic
achievement, and (c) frequency and severity of drug use among the students and their peers.

The data from the staff interviews were analyzed using qualitative methods. The data were categorized into three main topics: (a) our school is normal, (b) our school is under the radar, and (c) our school needs help. Descriptive statistics for each of the 43-items on the student questionnaire were calculated and bivariate correlations were used to examine the relationship between drug and alcohol abuse, school attendance, and achievement.

Results of the analysis indicated that some teachers reported knowing student substance use existed in school. However, if the substance use of the students did not affect the daily routine of the classroom, the teachers ignored it. The results of the student data indicated that female students were more likely than males to use drugs to cope with angry feelings, deal with stress, and forget problems. Older students reported going to school under the influence of drugs more frequently than their younger peers.

Salm et al. (2011) concluded that according to staff the amount of student drug and alcohol use in the school was normal and that there was minimal concern for classroom issues regarding drugs and alcohol. The student questionnaire revealed a positive correlation between substance use and students skipping school and a negative correlation between alcohol and drug use and academic achievement. Salm et al. (2011) recommended that the entire staff of the school be involved in awareness training concerning substance abuse and that a sense of awareness at the community level must occur to have sustained effect on the substance abuse problem in schools (Salm et al., 2011).
Ludden (2012) examined the beliefs of prospective teachers concerning adolescent substance use and their preparedness to deal with substance use situations. The participants in the study were 384 pre-service teachers enrolled in the first phase of a teacher development program. During this phase of their program, the pre-service teachers were involved in course work that addressed issues regarding adolescent development. They were surveyed at the end of this phase of their program.

A modified version of a questionnaire by De Moor et al. (1992) was used to collect data. The questionnaire contained seven sections: (a) teacher behaviors in response to substance use, (b) preparation for response, (c) substance use, (d) substance use risk and disapproval, (e) beliefs about adolescents, (f) negative experiences during adolescence, and (g) teacher efficacy and perceptions of their social-emotional role.

The data were analyzed using four statistical methods. Ludden (2012) first examined the descriptive data regarding substance use and attitudes toward adolescents and the substance use by adolescents. The second analysis was a set of eight, 2 X 2 MANOVAs. The first multivariate outcomes were substance use beliefs and the second set of multivariate beliefs were about teaching adolescents. Third, linear regressions were conducted on the responses of the pre-service teachers concerning: (a) substance use, (b) preparation for responding to use, and (c) beliefs about educating adolescents. Finally, to compare the hypothesis about substance type differences, repeated ANOVAs were performed comparing prospective teachers’ reactions to possession, use, and preparedness across tobacco, alcohol, and marijuana.

Results of the analyses indicated beliefs about marijuana use differed by gender, and the difference was statistically significant. Beliefs about teaching adolescents
differed by gender, however the differences were not significant. Beliefs about alcohol use indicated a difference by gender and monthly alcohol use, however the difference was not significant. Ludden (2012) found that prospective male teachers in this study would respond less harshly to marijuana possession and/or use than female pre-service teachers. Prospective teachers in this study felt only somewhat prepared to deal with adolescent students using cigarettes, alcohol, and marijuana during school hours. Participants also were somewhat likely to very likely to have a variety of responses regarding possession and use of tobacco, alcohol and marijuana by adolescents. They felt somewhat prepared to react to possession and use of tobacco, alcohol and marijuana in school during school hours by students. They also believed that there was only a slight to moderate risk associated with having one or two drinks nearly every day and smoking marijuana occasionally. Results showed more risk and disapproval associated with smoking one to two packs of cigarettes per day. In terms of substance use by prospective teachers in the past 30 days, 19% reported cigarette use, 69% reported alcohol use, and 11% reported marijuana use. The pre-service teachers believed that about half of all adolescents are rebellious and less than half engage in problem behaviors. On average, prospective teachers did not agree or disagree with the statement that their experiences as adolescents were negative.

Finally, Ludden (2012) concluded that prospective teachers only slightly endorsed their socio-emotional role and their efficacy in supporting adolescent development. Ludden (2012) recommended that teacher preparation programs should include information about adolescent substance use. She recognized that prospective teachers are emerging adults and may be involved with some substance use as personal substance use
was a consistent predictor of perceived responses in the linear regression. Ludden (2012) recommended a better understanding of pre-service teacher beliefs regarding adolescent behaviors and substance use be used to design more effective prevention programs.

Research shows that general education teachers are aware of the problems caused by students who use illegal substances, however the problems continue to exist (Finn & Willert, 2006; Salm et al., 2011). Additional training for teachers and prospective teachers on recognizing and dealing with substance use by youth and adolescents could benefit the teachers and ultimately the students (Ludden, 2012; Van Hout & Connor, 2008). Administrators and teachers should work together to provide general education classrooms suitable for effective learning (Finn & Willert, 2006; Salm et al., 2011).

The Attitudes of Special Education Teachers

Current research on the beliefs and attitudes of special education teachers is limited. Research shows that students with special needs are at a high risk for illegal substance use, and therefore more research is needed concerning these students (Fowler & Tisdale, 1992). Special education teachers need support and must be heard when they express their concerns (Fowler & Tisdale, 1992). The beliefs of educational administrators indicate that substance use is a problem affecting absenteeism, drop-out rate, and scholastic achievement (Erdogan, Erdogan, Kaya, & Ulus, 2011).

Fowler and Tisdale (1992) examined the perceptions of teachers regarding special education students as a high risk group for drug and alcohol abuse. The purpose of the study was to determine whether students with disabilities were receiving regular, specialized, or systemic substance abuse education.
The participants in the study were 166 special education teachers. Thirty-nine percent of the participants taught in elementary schools, 28.9% taught in middle schools, and 30% taught high school. Fifty-nine percent of the teachers surveyed worked in suburban schools, 21% worked in urban schools, and 3% worked in rural schools.

The data were collected using questionnaires mailed to the teachers. The teachers were asked to respond to items such as: (a) regular involvement of students in substance use programs, (b) provisions for specialized substance use programs, and (c) identification of substance abuse problems. The data from the questionnaire were analyzed using categorical analysis by: (a) grade level taught, (b) type of school, (c) type of disability, (d) students identified with substance abuse issues, and (e) students at risk of substance abuse. Results of the analysis indicated that the majority of the teachers reported that their students were not regularly involved in a substance use prevention program and 74% of the teachers stated that their students were not involved in a special education substance use prevention program. A majority believed that at least one of their students was at high risk for substance use problems and 23% of the teachers believed that five or more of their students were at risk for substance use problems. More than 50% of the respondents did not feel that their school or district had the resources to educate students with disabilities in the area of substance use or prevention. Fowler and Tisdale (1992) concluded that it may be premature to make a strong recommendation that special substance use prevention programs be designed for students in special education classrooms. However, they did acknowledge the difficulty of accurately assessing the influence of current efforts in alcohol and drug abuse education, but recommended the
need for further study of the students with special needs as a high risk group for substance abuse.

Ndande (2010) examined the perceptions of special education teachers regarding their knowledge of substance abuse as related to classroom pedagogy. The purpose of the study was to gather information from special education teachers in 4 specific areas: (a) their perceptions of substance abuse among their students, (b) their perceptions of their knowledge of different substance abuse areas, (c) their perceptions of their classroom knowledge in addressing instructional and behavioral issues of special education students who are abusing substances, and (d) the differences in the level of knowledge among teachers related to classroom pedagogy skills.

The participants in this study were 5,000 special education teachers randomly selected nationwide across grade levels (i.e., kindergarten/elementary, middle, high school) and locations (i.e., urban, rural, suburban). The sample was stratified for seven geographical regions (i.e., New England, mid-Atlantic, southeast, midwest, southwest, mountains/plains, west).

Data were collected using a two section survey. Section one consisted of 23 questions using Likert-type responses to perceptions of knowledge in various substance abuse areas and one open-ended optional question. The second section contained items that focused on participant demographics.

The data were analyzed using SPSS (SPSS, 2009). The first statistical analysis was descriptive tests on the demographic information (i.e., frequency, mean, standard deviation). Secondly, a one-way analysis of variance (ANOVA) was used to compare the means of perception of knowledge between the substance use areas (e.g., type of
substances abused, frequency of substance abuse by students, physical/visible signs of substance abuse). Finally, multivariate analyses of variance were used to determine if a difference existed between the perceptions of the knowledge of the participants across demographical domains (i.e., school level, school location, teacher assignment).

Results of the analysis showed a significant difference in the knowledge of substance abuse. The post-hoc (Bonferroni) test showed significant differences in: (a) knowledge of the effects of substance use on behavior, (b) knowledge of types of substances frequently abused by students, and (c) physical/visible signs of substance abuse. A multivariate analysis used to compare the substance abuse knowledge levels of the participants across the three school levels showed no significant difference existed.

Sixty percent of the special education teachers in this study believed that 16% of their students were abusing substances. However, the teachers may be unable to identify their students who are abusing substances (Fowler & Tisdale, 1992). Ndande (2010) concluded that many special education teachers perceive they have moderate knowledge about substance abuse, while the majority (70%) still interprets their knowledge as limited.

Ndande (2010) recommended future studies to verify the knowledge level of special education teachers in the area of substance abuse using: (a) tests, (b) questionnaires, or (c) focus groups. She also recommended additional research on the avenues teachers use to acquire substance abuse information. Surveying students receiving special education services may be used to help compare teacher reports to actual substance abuse among students with disabilities.

General education teachers, special education teachers, and administrators deal
with the problems of substance use by youth and adolescent in schools (Erdogan et al., 2011; Fowler & Tisdale, 1992; Salm et al., 2011). The responsibilities of teachers regarding the problems of substance use in school need to be clearly defined (Fowler & Tisdale, 1992; Salm et al., 2011). Additional research on the attitudes and beliefs of educators may provide a basis for effective training for teachers and administrators (Broadus et al., 2010).
CHAPTER THREE

METHODOLOGY

Overview

Education is challenged by problems of conduct, motivation, attendance, academic achievement, and low graduation rates, often due to drug and alcohol use by students (Fritz & Carroll, 1999; Salm et al., 2011; Schroeder & Johnson, 2009; Sekulic et al., 2012; United States Department of Education, 1986). Students with and without disabilities obtain alcohol and marijuana both within and outside of the school setting (Finn & Willert, 2006; Taggart et al., 2007). The attitudes of general and special education teachers concerning substance use and abuse often are reflected in student behavior and in the implementation of school policies concerning illegal drugs and alcohol (De Moor et al., 1992; Finn & Willert, 2006; Ludden & Eccles, 2007; Maehr & Midgley, 1996; Salm et al., 2011).

Data on current drug and alcohol prevalence in the schools indicate that teacher attitudes may impact student drug and alcohol use (Ludden & Eccles, 2007). However, there are limited data concerning educator attitudes about substance abuse and students with and without disabilities (CBHSQ, 2013; Finn & Willert, 2006; Johnston et al., 2012; NLTS2, 2009; SAMHSA, 2012a; Slayter, 2010; Townsend et al., 2007). The research indicates that attitudes about SUD change overtime as the drug and alcohol culture changes (Anderson et al., 2007; Christian & Poling, 1997; Johnston et al., 2012). Thus, it is imperative to collect data concerning teacher (general and special education) attitudes. However, to date, no research has been conducted comparing the attitudes of general and special educators on this topic (NLTS2, 2009).
In order to understand the complex nature of drug and alcohol use among school-age children and youth (with and without disabilities), it is important to document educator attitudes (De Moor et al., 1992; Maehr & Midgley, 1996). This study ascertained the differences/similarities of educator attitudes concerning substance use by: (a) type of educator (general vs. special education), (b) grade level taught (e.g., K-5, 6-8, 9-12), and (c) gender (female vs. male).

Research Questions

This study addressed the following research questions:

Research Question 1: Do the attitudes of special education and general education teachers differ concerning the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness)?

Research Question 2: Do the attitudes of special education and general education teachers differ concerning the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness) across grade levels (e.g., K-5, 6-8, 9-12)?

Research Question 3: Do the attitudes of special education and general education teachers differ concerning the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness) by gender (male vs. female)?

Participants

The participants in this study were licensed teachers (general and special education) employed in the southwestern United States. A variety of educational
settings (e.g., resource room, self-contained, general education) and grade levels (e.g., elementary, middle, secondary) were represented by the participants. All participants received an email that described the study and invited them to complete the online questionnaire. When the teachers clicked the link to the questionnaire, the first screen was the protocol that described the purpose of the study, the approximate length of time to complete the questionnaire, and the digital consent form (see Appendix A). The participants completed the digital informed consent form before they accessed the online questionnaire. Demographic information was collected from teachers who completed the questionnaire (see Table 1). Initially data were collected through the local school district, but due to circumstances beyond the control of the study, data were collected from teachers in this district who were currently enrolled in a university Master’s Degree program (general education or special education) in a large urban university located in the school district. Data from participants who indicated they worked in pre-school or post-secondary were not analyzed for this study.

**Setting**

The setting for the study was a large southwestern school district. The school district provides a free appropriate public education to students both with and without disabilities. The district offers pre-kindergarten through twelfth grade education, and consists of 377 schools (National Center for Education Statistics [NCES], 2012). There are approximately 314,059 students, 15,269 classroom teachers, and approximately
Table 1

**Teacher Demographic Information**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number of Teachers (N=225)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>159</td>
</tr>
<tr>
<td>Male</td>
<td>66</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>21-30 years</td>
<td>89</td>
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<tr>
<td>31-40 years</td>
<td>55</td>
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<td>41-50 years</td>
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<td>51-60 years</td>
<td>32</td>
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<tr>
<td>61-70 years</td>
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</tr>
<tr>
<td><strong>Years Working in Education</strong></td>
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</tr>
<tr>
<td>1-5 years</td>
<td>117</td>
</tr>
<tr>
<td>6-10 years</td>
<td>34</td>
</tr>
<tr>
<td>11-15 years</td>
<td>26</td>
</tr>
<tr>
<td>16-20 years</td>
<td>22</td>
</tr>
<tr>
<td>&gt; 20 years</td>
<td>26</td>
</tr>
<tr>
<td><strong>Type of Educator</strong></td>
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</tr>
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<td>Special Educator</td>
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</tr>
<tr>
<td>Students in Early Childhood Special Education</td>
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</tr>
<tr>
<td>Students with Intellectual Disabilities</td>
<td>15</td>
</tr>
<tr>
<td>Students with Learning Disabilities</td>
<td>67</td>
</tr>
<tr>
<td>Students with Emotional Disabilities</td>
<td>7</td>
</tr>
<tr>
<td>Students with Autism</td>
<td>13</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
<tr>
<td>General Educator</td>
<td>106</td>
</tr>
<tr>
<td><strong>Current Work Assignment</strong></td>
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</tr>
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<td>Pre-School</td>
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</tr>
<tr>
<td>Grades K-5</td>
<td>67</td>
</tr>
<tr>
<td>Grades 6-8</td>
<td>53</td>
</tr>
<tr>
<td>Grades 9-12</td>
<td>82</td>
</tr>
<tr>
<td>Post-Secondary</td>
<td>9</td>
</tr>
</tbody>
</table>
1,600 administrators in the district (NCES, 2012). The district includes 67,877 English Language Learners and 32,384 students with Individual Educational Programs (IEP) (NCES, 2012).

**Instrumentation**

The questionnaire used in this study was a modification of the *Addiction Belief Inventory (ABI)* (Luke et al., 2002). The *ABI* (Luke et al., 2002) is a 40-item questionnaire that was developed using two clinical samples: an alcohol user treatment group (N = 134) and a dual diagnostic group (N = 536). The underlying framework for the *ABI* (Luke et al., 2002) is based on the disease model and other commonly used models of addiction. Confirmatory factor analysis revealed seven stable subscales: (a) inability to control, (b) chronic disease, (c) reliance on experts, (d) responsibility for actions, (e) responsibility for recovery, (f) genetic basis, and (g) coping. Multivariate analyses provided reliability and validational support.

The *ABI* (Luke et al., 2002) was modified using suggestions from Broadus et al. (2010) for this study. Broadus et al. (2010) loaded 22 of the 40 *ABI* questions into five constructs: (a) coping, (b) efficacy, (c) disease, (d) lack of efficacy, and (e) moral weakness. The phrases “alcoholics/addicts” and “addictive persons” were replaced with the term “most people with alcohol or drug problems” (Broadus et al., 2010, p. 285). This modification was intended to clarify the questions for the addiction educator participants (Broadus et al., 2010).

For the purpose of this study a 20-item questionnaire was developed that was comprised of modified questions from the *ABI* (Luke et al., 2002) and suggestions by
Broadus et al. (2010) (see Appendix B). The questionnaire was comprised of two areas: (a) demographic information, and (b) questions concerning drug and alcohol problems. Permission was granted by Dr. Luke to adapt the *Addiction Belief Inventory* to a digital format for use in this study (see Appendix C).

The demographic information included: (a) gender, (b) age, (c) years working in education, (d) current position, (e) type of educator, and (f) current work assignment (see Appendix B). If the type of educator selected was special educator then, additionally, the participant was asked if the majority of their students are students with intellectual disabilities, students with learning disabilities, students with emotional disabilities, students with autism, or students with gifts and talents.

The questions concerning drug and alcohol problems were answered using a 5-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Neither Agree nor Disagree, 4=Agree, 5=Strongly Agree) (see Appendix B). These questions were categorized into five subscales: (a) coping, (b) efficacy, (c) disease, (d) lack of efficacy, and (e) moral weakness as identified by Broadus et al. (2010) (see Appendix D).

The five questions on the coping subscale were based on the belief that drugs and alcohol are used by a person to cope with problems of everyday life. The four questions on the efficacy subscale were based on the belief that the use of drugs or alcohol is a result of the inability of a person to control their drinking or using. The four questions on the disease subscale were based on the belief that drug and alcohol problems are a disease. The four questions on the lack of efficacy subscale were based on the belief that a person who misuses drugs or alcohol must rely on experts for recovery from drug or
alcohol problems. The three questions on the moral weakness subscale were based on the belief that drug and alcohol problems are a moral weakness (see Appendix D).

**Materials**

The materials used in this study were the questionnaire and the web based software used for data collection. All participant responses were classified and stored digitally.

**Questionnaire**

The study was conducted using an online questionnaire to electronically collect data from the participants. The participants received an introductory email asking them to participate in the study (see Appendix E). They clicked on the link embedded in the email to access the questionnaire.

**Website**

The questionnaire was developed using Qualtrics (Qualtrics Lab, Inc., 2009). Qualtrics (2009) is a web-based questionnaire software. The first version of the Qualtrics (2009) survey software was released in 2005 and the most recent version was released in 2009. This research-based tool has been adopted by universities, government organizations, corporate clients, and nonprofit organizations to conduct online surveys, experimental research, classroom research, course evaluations, and data analysis. Some unique features of this tool are that it: (a) allows more than 100 types of questions, (b) allows data to be displayed in over 30 different types of graphs, and (c) allows downloading or exporting data into Excel, Statistical Package for Social Sciences (SPSS), XML, or HTML formats.
To maintain confidentiality the questionnaire was sent electronically to the teachers with a dedicated link to access the online questionnaire. The teachers accessed the online questionnaire following the process described in the flow chart (see Appendix F). The questionnaire was accessible to the participants for a five-week period. All questionnaire responses were categorized and maintained digitally. Access to the information compiled from the questionnaire was limited to two people. Information obtained was used solely for the purpose of statistical analysis and dissemination of information pertaining to the purpose of this study.

**Design and Procedures**

The study was conducted over a three-month period. It consisted of the following phases: (a) development of the online questionnaire, (b) solicit participation, (c) distribute questionnaire, and (d) collect and analyze data.

**Phase One**

Phase One involved the development of the questionnaire. Dr. Douglas A. Luke, Professor at Washington University in St. Louis, Missouri and Director of the Center for Public Health Systems Science at the Brown School was contacted. He granted permission to use and modify his questionnaire, the *Addiction Belief Inventory* (see Appendix C) (Luke et al., 2002) for use in this study.

The *ABI* survey was modified using *Qualtrics* (2009) to a 20-item online questionnaire with two sections (see Appendix B). The first section collected demographic information. The second section was a series of questions focused on teacher attitudes about drug and alcohol problems. The drug and alcohol questions were
categorized into five constructs: (a) coping, (b) efficacy, (c) disease, (d) lack of efficacy, and (e) moral weakness. To ensure that the questionnaire was transferred from the paper format to the digital format correctly, two reliability checkers reviewed the digital questionnaire.

The first page of the questionnaire was a description of the questionnaire and the required digital informed consent for the participant (see Appendix A). Digital consent is considered to be legal consent for an online survey (C. Esparaza, personal communication, August 27, 2012). Once participants agreed to participate in the study (clicked the button to give their consent), they proceeded to the survey. Participants who did not give their consent were exited from *Qualtrics* (2009). If participants exited the survey by closing the survey window before completion, they were prohibited from re-entering the survey later.

**Phase Two**

Phase Two involved the solicitation of participants. A large school district in the southwest was contacted (see Appendix G) and agreed to send a letter of invitation to all educators to participate in the research study (see Appendix E). The letter had a description of the study and a link to access the online questionnaire. The letter indicated that the study was voluntary and that there were no consequences if the educator chose not to participate in the study. After the participants clicked on the link to access the questionnaire, they read the protocol and gave their digital consent before proceeding to the questionnaire. Once a participant completed the questionnaire, repeat access to the questionnaire was denied by *Qualtrics* (Qualtrics, 2009). This data collection lasted three days and was ended due to circumstances beyond the control of the study.
Participate solicitation was moved to a large urban university with permission of the university Institutional Review Board (IRB). The participants were contacted in the manner described above.

**Phase Three**

The questionnaire was accessible for five weeks. The initial letter to teachers was sent out Tuesday of the first week (see Appendix E). Wednesday and Thursday of the first week reminder letters were sent (see Appendix H). No letters were sent during the second week. On Tuesday of the third week a formal reminder was sent (see Appendix I). Reminder letters were sent on Wednesday and Thursday of the third week (see Appendix H). No letters were sent during the fourth week. On Tuesday of the fifth week a formal reminder was sent (see Appendix I). Reminder letters were sent on Wednesday and Thursday of the fifth week (see Appendix H). Teachers received nine letters requesting their participation in the study (see Appendix J).

**Phase Four**

*Qualtrics* (2009) collected, categorized, and stored responses submitted by the participants. Once the data were collected by *Qualtrics* (2009), the data were imported into SPSS (2012) for analysis. At the end of the 5-week data collection period, statistical tests were conducted to analyze the data.

**Data Collection**

Emails were sent to prospective participants (see Appendices E, H, I). Demographic information and participant responses were collected for a 5-week period.
The data collected from the Qualtrics questionnaire were imported into SPSS (2012) for analysis.

**Treatment of the Data**

Responses from the participants were analyzed to answer the following research questions:

**Research Question 1**: Do the attitudes of special education and general education teachers differ concerning the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness)?

**Analysis**: In order to determine if a significant difference existed between the attitudes of special education and general education teachers, the data were analyzed using *t*-tests. An independent *t*-test was conducted for each of the five constructs of substance abuse. The alpha level was set at .05.

**Research Question 2**: Do the attitudes of special education and general education teachers differ concerning the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness) across grade levels (e.g., K-5, 6-8, 9-12)?

**Analysis**: An analysis of the variance (ANOVA) was conducted in order to determine if a significant difference existed between the attitudes of special education and general education teachers across grade levels. A 2 (teacher types) X 3 (grade levels) factorial ANOVA was conducted for each of the five constructs of substance abuse. The alpha level was set at .05.
**Research Question 3:** Do the attitudes of special education and general education teachers differ concerning the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness) by gender (male vs. female)?

**Analysis:** An analysis of variance (ANOVA) was conducted to determine if a significant difference existed between the attitudes of special education and general education teachers by gender. A 2 (teacher types) X 2 (genders) factorial ANOVA was conducted for each of the five constructs of substance abuse. The alpha level was set at .05.

**Interrater Data Verification**

Two interraters (observer A and B) each verified 25% of the SPSS data by comparing it to the data in Qualtrics. The percent of agreement was 100% between the two observers (see Table 2).

<table>
<thead>
<tr>
<th>Source</th>
<th>Observer</th>
<th>Percent of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPSS/Qualtrics</td>
<td>A</td>
<td>([\frac{70}{70+0}] \times 100 = 100%)</td>
</tr>
<tr>
<td>SPSS/Qualtrics</td>
<td>B</td>
<td>([\frac{70}{70+0}] \times 100 = 100%)</td>
</tr>
</tbody>
</table>
CHAPTER FOUR
RESULTS

One of the greatest challenges of public education is drug and alcohol abuse among students (Botvin et al., 2003; Fowler & Tisdale, 1992; Moss, 2013). Students with and without disabilities obtain drugs and alcohol at school or in the community (Christian & Poling, 1997; Slayter, 2006). Research indicates that drug and alcohol use affects the academic performance, social development, and personal safety of many adolescents (Hollar & Moore, 2004). Emerging literature indicates that teacher attitudes concerning drug and alcohol use may be linked to the use of these substances by students (De Moor et al., 1992; Maehr & Midgley, 1996). Therefore it is imperative to determine and monitor these attitudes (Ludden & Eccles, 2007).

The purpose of this study was to determine teacher attitudes concerning substance use. An online questionnaire was developed and distributed through Qualtrics (Qualtrics Labs Inc., 2009), a web-based online software. Demographic information was collected and a modified version of the Addiction Belief Inventory (ABI) (Luke et al., 2002) was used to collect the attitudes and beliefs of special and general education teachers concerning alcohol and drug problems. The link to the questionnaire was distributed to teachers in a large school district in the southwest region of the United States. A total of 225 questionnaires (see Table 1) were completed and analyzed. Data were collected across a five-week period and quantitative analysis was used to analyze the data. The
20-item questionnaire (see Appendix B) used in this study collected information concerning the beliefs and attitudes of special and general education teachers regarding substance abuse. For each statement, participants indicated on a 5-point Likert scale: (1) strongly agree, (2) agree, (3) neither agree nor disagree, (4) disagree, and (5) strongly disagree. The 20 questions were categorized into the five constructs of substance abuse (see Appendix D). Seven demographic items were also included in the questionnaire (see Table 1). The data from the questionnaire were analyzed to answer the following questions:

**Research Question 1.** Do the attitudes of special education and general education teachers differ concerning the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness)?

In order to determine if a significant difference existed between the attitudes of special education and general education teachers concerning substance abuse, the data were analyzed using t-tests. Five independent t-tests were conducted, one for each of the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness). The alpha level was set at .05.

The results of the independent t-tests indicated only one significant difference between the two groups of teachers (e.g., special education, general education). The difference in attitudes and beliefs of teachers in special education and teachers in general education regarding substance abuse was significant for the efficacy construct $t=3.279$, $p=.001$ (see Table 3). This indicates that special and general education teachers have a statistically significant difference in their views concerning whether people with alcohol or drug problems can use these substances socially. Special education teachers were more
Table 3

*Group Statistics and Equality of Means by Type of Educator*

<table>
<thead>
<tr>
<th>Construct</th>
<th>M</th>
<th>SD</th>
<th>p</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coping</td>
<td></td>
<td></td>
<td>.997</td>
<td>&lt;.00</td>
</tr>
<tr>
<td>Special</td>
<td>2.60</td>
<td>.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>2.60</td>
<td>.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Efficacy</td>
<td></td>
<td></td>
<td>.001*</td>
<td>3.28</td>
</tr>
<tr>
<td>Special</td>
<td>3.65</td>
<td>.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>3.35</td>
<td>.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disease</td>
<td></td>
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<td>.171</td>
<td>1.37</td>
</tr>
<tr>
<td>Special</td>
<td>2.91</td>
<td>.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>2.78</td>
<td>.71</td>
<td></td>
<td></td>
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<tr>
<td>Lack of Efficacy</td>
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<td>.41</td>
</tr>
<tr>
<td>Special</td>
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<td></td>
</tr>
<tr>
<td>General</td>
<td>2.30</td>
<td>.71</td>
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<tr>
<td>Moral Weakness</td>
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<td>Special</td>
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<tr>
<td>General</td>
<td>3.39</td>
<td>.65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* *p* < .05

likely to believe that people who have an alcohol or drug problem cannot control or limit their substance use than were general education teachers. The independent *t*-tests indicated that there was no significant difference between the attitudes and beliefs of the special education teachers and the general education teachers regarding substance abuse for the other four constructs (see Table 3). This indicates that special and general education teachers share similar beliefs and attitudes concerning substance abuse for the other four constructs (e.g., coping, disease, lack of efficacy, moral weakness).
Research Question 2. Do the attitudes of special education and general education teachers differ concerning the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness) across grade levels (e.g., K-5, 6-8, 9-12)?

In order to determine if a significant difference existed between the attitudes of special education and general education teachers across grade levels, an analysis of variance (ANOVA) was conducted. A 2 (teacher type) X 3 (grade level) factorial ANOVA was conducted for each of the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness). The alpha level was set at .05.

The results of the factorial ANOVA indicated that there was a significant difference with regard to the construct of efficacy based on type of teacher (e.g., special education, general education) \( F (1, 196) = 7.582, p = .006 \) (see Table 4). This supported the findings in Question One regarding the statistical difference in attitudes of special and general education teachers concerning the ability of people with alcohol and drug problems to use these substances socially. However there was no significant difference based on grade level taught for the construct of efficacy. The results of the ANOVA for the construct of coping indicated that the differences between grade levels were approaching significance \( F,(2,196)=2.95, p=.055 \) (see Table 4). A Tukey test determined which grade level differences were approaching significance. The results of the Tukey test indicated that the difference between grade levels K-5 and 9-12 was approaching significance Tukey \( p=.056 \) (see Table 4). These results indicated that the difference in the attitudes between teachers teaching grade levels K-5 and 9-12 with regards to people using alcohol and drugs to cope with problems of daily life was approaching significance.
Table 4

*Between-Subjects Effects by Grade Level and Type of Educator*

<table>
<thead>
<tr>
<th>Construct</th>
<th>F</th>
<th>p</th>
<th>Tukey p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coping</strong></td>
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<td></td>
</tr>
<tr>
<td>Grade Level</td>
<td>2.95</td>
<td>.055</td>
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<tr>
<td>K-5, 6-8</td>
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<td>6-8, 9-12</td>
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<tr>
<td>K-5, 9-12</td>
<td></td>
<td></td>
<td>.056</td>
</tr>
<tr>
<td>Type Educator</td>
<td>.01</td>
<td>.919</td>
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</tr>
<tr>
<td>Grade Level x Type Educator</td>
<td>.17</td>
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<td><strong>Efficacy</strong></td>
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<tr>
<td>Grade Level</td>
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</tr>
<tr>
<td>Type Educator</td>
<td>7.58</td>
<td>.006*</td>
<td></td>
</tr>
<tr>
<td>Grade Level x Type Educator</td>
<td>1.17</td>
<td>.312</td>
<td></td>
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<td><strong>Disease</strong></td>
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<td>Type Educator</td>
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<td>Grade Level x Type Educator</td>
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<td>Grade Level</td>
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<td>Grade Level x Type Educator</td>
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*Note.* Grade Level (df=2,196), Type Educator (df=1,196), Grade Level x Type Educator (df=2,196).

*p < .05*
The results also indicated there was no significant difference in the four constructs (e.g., efficacy, disease, lack of efficacy, moral weakness) when comparing the attitudes and beliefs of special and general education teachers across grade levels (e.g., K-5, 6-8, 9-12) (see Table 4). This indicates that special and general education teachers across all grade levels share similar beliefs and attitudes about substance abuse concerning whether people with alcohol or drug problems: (a) can control their drinking or using, (b) have a disease, (c) need help to stop drinking or using, and (d) have a moral or personal weakness. The means and standard deviations for each construct by grade level are shown in Table 5.

**Research Question 3.** Do the attitudes of special education and general education teachers differ concerning the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness) by gender (male vs. female)?

In order to determine if a significant difference existed between the attitudes of special education and general education teachers by gender, an analysis of variance (ANOVA) was conducted. A 2 (teacher type) X 2 (gender) factorial ANOVA was conducted for each of the five constructs (e.g., coping, efficacy, disease, lack of efficacy, moral weakness) of substance abuse. The alpha level was set at .05.

The results of the factorial ANOVA indicated that a significance difference existed based on gender (e.g., female, male) regarding the attitudes and beliefs of teachers concerning substance abuse for the construct of efficacy, \( F(1, 221)=10.304, p=.002 \) (see Table 6). Further analysis revealed that a significant difference in attitudes by gender (e.g., female, male) was found in the different beliefs of general education teachers, \( F(1,104)=14.50, p<.001 \) (see Table 6). This indicates that female and male
Table 5

Descriptive Statistics by Grade Level and Type of Educator

<table>
<thead>
<tr>
<th>Grade taught</th>
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</thead>
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<td>$SD$</td>
<td>$M$</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
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<td></td>
<td></td>
<td>$M$</td>
</tr>
<tr>
<td>Coping</td>
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<tr>
<td>Grade K–5</td>
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<td>Grade 6-8</td>
<td>2.63 .85</td>
<td>2.70 .79</td>
<td>2.67 .80</td>
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<td>Grade 9–12</td>
<td>2.75 .69</td>
<td>2.67 .73</td>
<td>2.70 .71</td>
</tr>
<tr>
<td>Total</td>
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<td>2.60 .73</td>
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<tr>
<td>Efficacy</td>
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<td></td>
</tr>
<tr>
<td>Grade K–5</td>
<td>3.61 .81</td>
<td>3.53 .60</td>
<td>3.58 .74</td>
</tr>
<tr>
<td>Grade 6-8</td>
<td>3.66 .72</td>
<td>3.19 .77</td>
<td>3.40 .78</td>
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<td>3.60 .53</td>
<td>3.33 .60</td>
<td>3.44 .59</td>
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<tr>
<td>Total</td>
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<td>3.33 .66</td>
<td>3.47 .69</td>
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<td>Disease</td>
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<td>2.87 .69</td>
<td>2.85 .63</td>
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<td>Total</td>
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<td>Lack of Efficacy</td>
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<td>2.32 .72</td>
<td>2.35 .67</td>
</tr>
<tr>
<td>Total</td>
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<td>2.31 .68</td>
<td>2.27 .67</td>
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<tr>
<td>Moral Weakness</td>
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<td>Grade K–5</td>
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<td>Grade 6-8</td>
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<td>3.35 .57</td>
<td>3.43 .63</td>
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<td>3.37 .73</td>
<td>3.38 .65</td>
<td>3.38 .69</td>
</tr>
</tbody>
</table>

Note. Special education: Grade K–5 (n=43), Grade 6–8 (n=23), Grade 9–12 (n=33). General education: Grade K–5 (n=24), Grade 6–8 (n=30), Grade 9–12 (n=49).
Table 6

*Between-Subjects Effects by Gender and Type of Educator*

<table>
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<tr>
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<th>p</th>
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</thead>
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<tr>
<td>Gender</td>
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</tr>
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<td>Special Education Teacher</td>
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<td>.299</td>
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<td>&lt;.001*</td>
</tr>
<tr>
<td>Type Educator</td>
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<td>.002*</td>
</tr>
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<td>.115</td>
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<td>Gender</td>
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<td>Type Educator</td>
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<td>Type Educator</td>
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<td>Gender x Type Educator</td>
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</table>

*Note. df = (1,221), a df=(1,104).*

*p < .05
general education teachers had significantly different attitudes with regard to whether a person with a drug or alcohol problem could use these substances socially. Female general education teachers were more likely than male general education teachers to believe that people who have problems with alcohol or drugs cannot control or limit their drinking or drug use. A significance difference also existed based on type of teacher (e.g., special education, general education) regarding the attitudes and beliefs of teachers concerning substance abuse for the construct of efficacy, $F(1, 221)=9.377$, $p=.002$ (see Table 6), supporting the findings in Questions One and Two. Special education teachers were more likely than general education teachers to believe that people who have a problem with alcohol or drugs cannot control their drinking or drug use. However the difference in attitudes and beliefs for type of teacher by gender was not significant, indicating that there was no significant interaction between teacher type and gender for the construct of efficacy.

There was no significance difference between the attitudes and beliefs of special education teachers and general education teachers based on their gender for the other four constructs (see Table 6). This indicates that men and women may share some similar attitudes and beliefs about substance abuse for the other four constructs (e.g., coping, disease, lack of efficacy, moral weakness). The means and standard deviations for each construct by gender are shown in Table 7.

In this study the only construct that showed a significant difference between the attitudes and beliefs of teachers regarding substance abuse was the construct of efficacy. The data analysis indicated that gender (e.g., female, male) and type of teacher
Table 7

*Descriptive Statistics by Gender and Type of Educator*

<table>
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<tr>
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<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
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<td>.85</td>
<td>2.60</td>
<td>.72</td>
</tr>
<tr>
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<td>2.70</td>
<td>.90</td>
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<td>.63</td>
<td>3.23</td>
<td>.76</td>
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<td>.69</td>
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<td>2.78</td>
<td>.71</td>
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<td>3.31</td>
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<td>.64</td>
<td>3.32</td>
<td>.76</td>
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<td>.68</td>
</tr>
</tbody>
</table>

*Note.* Female: Special (n=94), General (n=65). Male: Special (n=25), General (n=41).
(e.g., special education, general education) affect the beliefs and attitudes of teachers with regard to substance abuse within the construct of efficacy. Data indicated no significant differences among the attitudes and beliefs of teachers for the other four constructs (e.g., coping, disease, lack of efficacy, moral) in regards to the demographics (e.g., gender, type of teacher, grade level).
Students across grade levels in both special and general education classrooms are using drugs and alcohol (Christian & Poling, 1997; Slayter, 2006; Slayter, 2010). Drug and alcohol use has a negative impact on student achievement and student attendance (Crow, 1992; Salm et al., 2011). Previous research has focused on adolescent drug and alcohol use (Botvin et al., 2003; Finn & Willert, 2006; Fowler & Tisdale, 1992; Moss, 2013; Taggart et al., 2007). Recent research has begun to focused on teacher and administrator attitudes regarding drug and alcohol use (Broadus et al., 2010). This research indicates that special education and general education teacher attitudes concerning drug and alcohol use are reflected in the drug and alcohol use of their students (Ludden & Eccles, 2007).

The purpose of this study was to examine teacher attitudes concerning substance use. Data were collected using an on-line questionnaire. The questionnaire was designed using constructs outlined by Broadus et al. (2010) and Luke et al. (2002).

The questionnaire included demographic questions: (a) gender, (b) age, (c) years working in education, (d) current position, and (e) current grade level taught (see Table 1). The questionnaire also contained questions regarding the beliefs and attitudes of the participants concerning drug and alcohol use. The questions regarding attitudes and beliefs of substance use were based on five constructs: (a) coping, (b) efficacy, (c) disease, (d) lack of efficacy and (e) moral weakness (see Appendix D).
Teacher Beliefs and Attitudes Across the Constructs of Substance Abuse

Question One was analyzed to compare the attitudes and beliefs of special and general education teachers based on the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness). The results showed a statistically significant difference between the attitudes and beliefs of the two groups for the construct of efficacy (see Table 3). Special education teachers were significantly more likely to believe that people with drug or alcohol problems cannot limit or control their drinking or drug use than were general education teachers. Identifying and understanding these differences in beliefs is necessary as these beliefs impact teacher attitudes about students and their illegal drug or alcohol use (Finn & Willert, 2006; Ludden & Eccles, 2007; Salm et al., 2011). Data analysis of the other four constructs (e.g., coping, disease, lack of efficacy, moral weakness) indicated similarities between the means of the two groups (e.g., special education, general education) (see Table 3). While there was no statistically significant difference between the attitudes of special and general education teachers concerning the four constructs (e.g., coping, disease, lack of efficacy, moral weakness), the difference concerning the construct of efficacy may be due to the individualization philosophy of special education. That is to say special education teachers are trained to meet the students at their educational level and move forward from there.

Teacher Beliefs and Attitudes by Grade Level Across Five the Constructs

Question Two was analyzed to compare the attitudes and beliefs of special and general education teachers by grade level (e.g., K-5, 6-8, 9-12) within the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness). The
results of the analysis supported the results found in Question One for the construct of efficacy. Special education teachers across all grade levels were significantly more likely to believe that people with alcohol or drug problems cannot limit or control their drinking or drug use than were general education teachers. Regarding the construct of coping the difference in teacher attitudes across grade levels was approaching significance (see Table 5). A Tukey test revealed a difference approaching significance between the attitudes of teachers who taught grade levels K-5 and 9-12 concerning the construct that alcohol and drugs were used to cope with problems (see Table 5). The results of the analysis did not show a significant difference in the beliefs and attitudes of special and general education teachers by grade level (e.g., K-5, 6-8, 9-12) with regards to the other four constructs of substance abuse: (a) efficacy (b) disease, (c) lack of efficacy, (d) moral weakness. The difference concerning the construct of coping may be due to the recreational use of alcohol and drugs by students in high school, exposing high school teachers to more students who use substances socially.

**Teacher Beliefs and Attitudes by Gender Across the Five Constructs**

Question Three was analyzed to compare the attitudes and beliefs of special and general education teachers by gender within the five constructs of substance abuse (e.g., coping, efficacy, disease, lack of efficacy, moral weakness). The results of analysis supported the findings in Question One with regard to the significant difference within the construct of efficacy for the two groups of teachers (e.g., special, general). Analysis of the construct of efficacy indicated that beliefs of female and male general education teachers were significantly different. Female general education teachers were more likely
to believe that people with alcohol and drug problems could not control or limit their substance use, than were male general education teachers (see tables 6, 7). These results supported earlier findings that women and men differed in their perceptions and beliefs regarding substance abuse (Ludden, 2012). Analysis of the data for the other four substance abuse constructs (e.g., coping, disease, lack of efficacy, moral weakness) indicated no significant differences between gender (e.g., female, male) and teacher type (e.g., special education, general education). However, the results did provide a starting point for understanding teacher attitudes in relation to alcohol and drug use and added to the research base concerning beliefs and attitudes of special and general educators regarding substance abuse.

Conclusions

Based on the data collected in this study, several conclusions can be drawn. These conclusions should be viewed in light of the limitations of the study.

1. A significant difference was found between special and general education teachers concerning their attitudes and beliefs about substance abuse for the construct of efficacy. This finding was supported in all three questions. This indicates that special and general education teachers have a significantly different perspective on whether or not people who have problems with alcohol and drugs can learn to drink and use drugs socially.

2. A significant difference was found between female and male general education teachers concerning their attitudes and beliefs about substance abuse for the construct of efficacy. This indicates that men and women have a
significantly different perspective on whether or not people who have problems with alcohol and drugs can learn to drink and use drugs socially.

3. Further research is necessary to formulate any conclusions concerning the four substance abuse constructs: (a) coping, (b) disease, (c) lack of efficacy, (d) moral weakness.

**Recommendations for Future Research**

General and special educator beliefs and attitudes about substance abuse affect students (Maehr & Midgley, 1996). However, little research has been done regarding teacher attitudes in this area (Broadus et al., 2010). Once educator attitudes have been ascertained, training for educators can be developed based on the prevailing attitudes. Properly trained special and general education teachers are better prepared to handle the substance abuse issues in the classroom (Ludden, 2012). Based on the results of this study, further research is suggested in the following areas:

1. Further research should be conducted concerning the beliefs and attitudes of special and general educators by age groups (e.g., 21-30 years, 31-40 years, 41-50 years, 51-60 years, 61-70 years) across the five constructs (e.g., coping, efficacy, disease, lack of efficacy, moral weakness). Teachers in each age group have experienced different social and cultural norms with regard to drugs and alcohol (Ludden, 2012).

2. Further research should be conducted concerning the beliefs and attitudes of special and general educators by years working in education (e.g., 1-5 years, 6-10 years, 11-15 years, 16-20 years, >20 years) across the five constructs
(e.g., coping, efficacy, disease, lack of efficacy, moral weakness). Preliminary analysis in this study showed a significant difference based on years working in education.

3. Further research should be conducted to determine if the beliefs and attitudes of special educators differ based on the types of students taught (e.g., students in early childhood special education, students with intellectual disabilities, students with learning disabilities, students with emotional disabilities, students with autism, students with gifts and talents) across the five constructs.

4. A replication of the present study should be conducted that includes school administrators.

5. A replication of the present study should be conducted that includes a larger number of special and general education teachers.

6. A replication of the present study should be conducted that includes the parents of school-age youth.

7. A replication of the present study should be conducted that includes school-age youth.

8. Social and cultural norms regarding substance use change and evolve (Anderson et al., 2007). Research should continue to explore the beliefs and attitudes of educators in the areas of substance abuse. As social and cultural norms change, so will the attitudes of educators (Anderson et al., 2007).
Summary

This study contributes to the knowledge base concerning the beliefs and attitudes of special and general educators regarding substance abuse. Prior to this study limited research had been conducted concerning the attitudes of special and general educators regarding substance abuse and no research had been conducted on the attitudes of special and general public school teachers about substance abuse with regard to the five constructs (e.g., coping, efficacy, disease, lack of efficacy, moral) (Broadus et al., 2010). This study incorporated the five constructs to determine if there was a significant difference between the attitudes of special and general education teachers based on gender and grade level taught. The results of the analysis for the construct of efficacy indicated that there was a significant difference between special and general education teacher attitudes regarding substance abuse. There was also a significant difference in the attitudes of female and male general education teachers regarding substance abuse for the construct of efficacy. Analysis of the other four constructs of substance abuse (e.g., coping, disease, lack of efficacy, moral) did not result in significant differences between the beliefs and attitudes of special and general education teachers by gender and across grade levels.

Educators and students are faced with problems resulting from substance abuse. Knowledge of the beliefs and attitudes regarding substance abuse, both currently and in the future, as the drug culture evolves, will provide opportunities to: (a) train teachers to best meet the needs of the students, (b) understand teacher needs, and (c) provide appropriate and adequate support to the teachers as they educate the children and youth who reside within their care.
APPENDIX A

DESCRIPTION OF RESEARCH AND DIGITAL CONSENT
TITLE OF STUDY: Special and General Educator Attitudes and Beliefs Concerning Alcohol and Drug Use


The purpose of this research is to study the attitudes and beliefs of general and special education teachers and administrators concerning the use of drugs and alcohol.

You are being asked to participate in the study because you meet the following criteria: you are a general educator, a special educator, or an administrator employed by the Clark County School District.

This study includes only minimal risks. The study will take approximately 15 minutes of your time. You will not be compensated for your time. Giving consent below will allow you access to the survey. Once started, the survey must be completed in one session. Incomplete surveys will not be included in the research. You may access the survey only one time.

For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office of Research Integrity – Human Subjects at 702-895-2794, toll free at 877-895-2794, or via email at IRB@unlv.edu.

Your participation in this study is voluntary. You may withdraw at any time. You are encouraged to ask questions about this study at the beginning or at any time during the research study.

Participant Consent:

☐ Yes, I have read the above information and agree to participate in this study. I am at least 18 years of age. (By clicking here, you will be directed to the questionnaire.)

☐ No, I do not want to participate at this time.
APPENDIX B

QUESTIONNAIRE
Demographic Information

Please complete the following information by selecting the appropriate response.

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>O Female</td>
<td>O Male</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Age</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>O 21-30 Years</td>
<td></td>
</tr>
<tr>
<td>O 31-40 Years</td>
<td></td>
</tr>
<tr>
<td>O 41-50 Years</td>
<td></td>
</tr>
<tr>
<td>O 51-60 Years</td>
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<tr>
<td>O 61-70 Years</td>
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<table>
<thead>
<tr>
<th>Years Working in Education</th>
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</tr>
</thead>
<tbody>
<tr>
<td>O 1-5 Years</td>
<td></td>
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<tr>
<td>O 6-10 Years</td>
<td></td>
</tr>
<tr>
<td>O 11-15 Years</td>
<td></td>
</tr>
<tr>
<td>O 16-20 Years</td>
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</tr>
<tr>
<td>O &gt;20 Years</td>
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<table>
<thead>
<tr>
<th>Current Position</th>
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</tr>
</thead>
<tbody>
<tr>
<td>O Administrator</td>
<td>O Teacher</td>
</tr>
<tr>
<td>Type of Educator</td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Special Education</td>
<td></td>
</tr>
</tbody>
</table>

If Special Education, the majority of the students I work with are:

- O Students in Early Childhood Special Education
- O Students with Intellectual Disabilities
- O Student with Learning Disabilities
- O Students with Emotional Disabilities
- O Student with Autism
- O Students with Gifts and Talents

<table>
<thead>
<tr>
<th>Current Work Assignment for Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>O Pre-School</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Work Assignment for Administrators</th>
</tr>
</thead>
<tbody>
<tr>
<td>O K-5</td>
</tr>
</tbody>
</table>
Definitions

Attitude. The belief that administrators and teachers bring to the school that effect the social environment of the school.

Please rate your attitudes and beliefs about the drug and alcohol statements in the questionnaire.

- Select 1 if you strongly agree with the statement
- Select 2 if you agree with the statement
- Select 3 if you neither agree nor disagree with the statement
- Select 4 if you disagree with the statement
- Select 5 if you strongly disagree with the statement

Every question must be answered in order for your responses to be used in the research.
<table>
<thead>
<tr>
<th></th>
<th>Most people with drug or alcohol problems must seek professional help.</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Most people with drug or alcohol problems can control their drinking or using.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Most people with drug or alcohol problems are not capable of solving their problem on their own.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Most people with drug or alcohol problems use drugs and/or alcohol to avoid personal problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>People who stop abusing alcohol or drugs and begin using them again have shown personal weakness.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>A problem with drugs or alcohol is inherited.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Most people with drug or alcohol problems can learn to control their drinking or drug use.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Please click the answer that best reflects your attitude.</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neither Agree nor Disagree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>----------------</td>
<td>-------</td>
<td>----------------------------</td>
<td>----------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td>Most people with drug or alcohol problems use drugs and/or alcohol to escape from bad family situations.</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>The abuse of drugs or alcohol is a disease.</td>
<td>9</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Most people with drug or alcohol problems have to stop using all drugs and alcohol to be considered in recovery.</td>
<td>10</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Most people with drug or alcohol problems use drugs and/or alcohol to lessen their depression.</td>
<td>11</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Most people with drug or alcohol problems are capable of drinking socially.</td>
<td>12</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>It is not a person's fault if they have a problem with drugs or alcohol.</td>
<td>13</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Most people with drug or alcohol problems use drugs and/or alcohol to feel better about themselves.</td>
<td>14</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Please click the answer that best reflects your attitude.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>The children of people who abuse alcohol or drugs will abuse alcohol or drugs when they grow up.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16</td>
<td>Treatment can allow people with drug or alcohol problems to drink or use drugs socially.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17</td>
<td>Most people with drug or alcohol problems should rely on expert help and guidance during recovery.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>Abusing alcohol or drugs is a sign of personal weakness.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19</td>
<td>Most people with drug or alcohol problems use drugs and/or alcohol because they cannot cope with life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>Some people are alcoholics or addicts from birth.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Thank you for your time. Please submit survey to register your answers.
APPENDIX C

PERMISSION LETTER FOR USE / MODIFICATION OF ABI
Washington University in St. Louis

GEORGE W. MARSHALL SCHOOL OF SOCIAL WORK
2410 Paraiso Point
North Las Vegas, Nevada 89031
Center for Public Health Systems Science
March 12, 2014

Dr. Douglas A. Luke, Director
Center for Public Health Systems Science
Washington University in Saint Louis
700 Rosedale Avenue
Saint Louis, Missouri 63112-1408
Tel: (314) 935-3704
Email: dluke@wustl.edu

Dear Dr. Luke:

I am completing a doctoral dissertation at the University of Nevada, Las Vegas entitled “Special and General Educator Attitudes and Beliefs Concerning Alcohol and Drug Use”. I would like your permission to use for my dissertation the survey discussed in the following:


The survey to be used is: the Addiction Belief Inventory (ABI) Survey. The ABI survey will be modified for digital access by school teachers.

The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages, and to the prospective publication of my dissertation by ProQuest through its UMI® Dissertation Publishing business. ProQuest may produce and sell copies of my dissertation on demand and may make my dissertation available for free internet download at my request. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. Your signing of this letter will also confirm that you or your company own the copyright to the ABI survey.

If these arrangements meet with your approval, please sign this letter where indicated below and return it to me in the enclosed return envelope. Thank you very much.

Sincerely,

[Signature]
Troy Wayne Kieser
Email: tkieser@unlv.nevada.edu

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE

By:
Dr. Douglas Luke

Title: [Signature]
Date: 3/21/14

Washington University in St. Louis, Campus Box 1009, 700 Rosedale Avenue, St. Louis, Missouri 63112-1408
Phone: (314) 935-3365 Fax: (314) 935-3756 E-mail: cphss@wustl.edu Website: cphss.wustl.edu

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APPENDIX D

QUESTIONS MAPPED TO CONSTRUCTS
<table>
<thead>
<tr>
<th>Construct</th>
<th>Item #</th>
<th>Question</th>
</tr>
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<tbody>
<tr>
<td>Coping</td>
<td>4</td>
<td>Most people with drug or alcohol problems use drugs and/or alcohol to avoid personal problems.</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Most people with drug or alcohol problems use drugs and/or alcohol to escape from bad family situations.</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Most people with drug or alcohol problems use drugs and/or alcohol to lessen their depression.</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>Most people with drug or alcohol problems use drugs and/or alcohol to feel better about themselves.</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Most people with drug or alcohol problems use drugs and/or alcohol because they cannot cope with life.</td>
</tr>
<tr>
<td>Disease</td>
<td>6</td>
<td>A problem with drugs or alcohol is inherited.</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>The abuse of drugs or alcohol is a disease.</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>The children of people who abuse alcohol or drugs will abuse alcohol or drugs when they grow up.</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>Some people are alcoholics or addicts from birth.</td>
</tr>
<tr>
<td>Efficacy</td>
<td>2</td>
<td>Most people with drug or alcohol problems can control their drinking or using.</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Most people with drug or alcohol problems can learn to control their drinking or drug use.</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Most people with drug or alcohol problems are capable of drinking socially.</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>Treatment can allow people with drug or alcohol problems to drink or use drugs socially.</td>
</tr>
</tbody>
</table>
**Questionnaire Items by Substance Abuse Construct**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item #</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of efficacy</td>
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<td>Most people with drug or alcohol problems must seek professional help.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Most people with drug or alcohol problems are not capable of solving their problem on their own.</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Most people with drug or alcohol problems have to stop using all drugs and alcohol to be considered in recovery.</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>Most people with drug or alcohol problems should rely on expert help and guidance during recovery.</td>
</tr>
<tr>
<td>Moral weakness</td>
<td>5</td>
<td>People who stop abusing alcohol or drugs and begin using them again have shown personal weakness.</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>It is not a person's fault if they have a problem with drugs or alcohol.</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>Abusing alcohol or drugs is a sign of personal weakness.</td>
</tr>
</tbody>
</table>
APPENDIX E

INTRODUCTORY LETTER
Dear Clark County School District Teacher:

You are being invited to participate in a research study. The purpose of this study is to investigate attitudes and beliefs regarding drug and alcohol abuse.

Participation involves the completion of an online questionnaire; the questionnaire will take approximately 15 minutes to complete. If you wish to volunteer, please click on the http address below:

https://unlvhospitality.Qualtrics.com//SE/?SID=SV_40HasKGrVtMJ3Pn

Once you press enter you will be directed to the homepage of the questionnaire.

Sincerely,

Kyle Higgins, Ph.D.
Principal Investigator
(702) 895-3205

Troy Kieser, M.Ed.
Student Investigator
(702) 895-3205
Email with Link to Questionnaire

Description of Research and Informed Consent

Demographic Information (see Appendix B)
Section 1

Beliefs About Drugs and Alcohol (see Appendix B)
Section 2
APPENDIX G

ACCESS LETTER
February 28, 2014

Office of Research Integrity – Human Subjects
University of Nevada, Las Vegas
4505 S. Maryland Parkway, Box 451047
Las Vegas, NV 89154-1047

Subject: Letter of Acknowledgement of a Research Project at a CCSD Facility

Dear ORI – Human Subjects:

This letter will acknowledge that I have reviewed a request by Troy Kieser to conduct a research project entitled Special and General Educator Attitudes and Beliefs Concerning Alcohol and Drug Addiction at the Department of Safe Drug Free Schools, 2701 E. St. Louis Ave., Las Vegas, Nevada 89104.

When the research project has received approval from the UNLV Institutional Review Board and the Department of Research of the Clark County School District, and upon presentation of the approval letter to me by the approved researcher, as administrator for the Department of Safe Drug Free Schools, I agree to allow access for the approved research project.

If we have any concerns or need additional information, the project researcher will be contacted or we will contact the UNLV Office of Research Integrity – Human Subjects at 895-2794.

Sincerely,

[Signature]

Jodi S. Joyce
Coordinator III

cc: Tammy A. Malich, Assistant Superintendent
APPENDIX H

REMININDER LETTERS TO TEACHERS
Dear Clark County School District Teacher:

PLEASE DISREGARD THIS EMAIL IF YOU HAVE COMPLETED YOUR QUESTIONNAIRE ON BELIEFS AND ATTITUDES ABOUT DRUGS AND ALCOHOL.

Your input is of value to the research. Participation will in no way affect your relationship with the district. No identifying information will be collected.

The questionnaire will take approximately 15 minutes to complete. Please click on the http:// address below:

https://unlvhospitality.Qualtrics.com//SE/?SID=SV_40HasKGrVtMJ3Pn

If you have any questions concerning the research study, please contact Dr. Kyle Higgins at 702-895-3205. If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Office of Research Integrity – Human Subjects Research, at 702-895-0964.

Sincerely,

Kyle Higgins, Ph.D.
Principal Investigator

Troy Kieser, M.Ed.
Student Investigator

Department of Educational and Clinical Studies
Box 453014 · 4505 S. Maryland Parkway · Las Vegas, NV 89154-3014
Tel: 702-895-3205 · Fax: 702-895-0984
APPENDIX I

FORMAL REMINDER LETTERS TO TEACHERS
Dear Clark County School District Teacher:

PLEASE DISREGARD THIS EMAIL IF YOU HAVE COMPLETED YOUR QUESTIONNAIRE ON BELIEFS AND ATTITUDES ABOUT DRUGS AND ALCOHOL.

If you have not completed the questionnaire your input to this study is needed to contribute to the research on teacher and administrator beliefs and attitudes. Participation will in no way effect your relationship with the district. Additionally, no identifying information will be collected.

The questionnaire will take approximately 15 minutes to complete. If you wish to volunteer, please click on the http:// address below:

https://unlvhospitality.Qualtrics.com//SE/?SID=SV_40HasKGrVtMJ3Pn

Once you press enter you will be directed to the homepage of the questionnaire.

If you have any questions concerning the research study, please contact Dr. Kyle Higgins at 702-895-3205. If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Office of Research Integrity – Human Subjects Research, at 702-895-0964.

Sincerely,

Kyle Higgins, Ph.D.
Principal Investigator

Troy Kieser, M.Ed.
Student Investigator
Five-Week Questionnaire Distribution Plan For Teachers

<table>
<thead>
<tr>
<th>Week</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>Initial Letter (see Appendix E)</td>
<td>Reminder Letter (see Appendix H)</td>
<td>Reminder Letter (see Appendix H)</td>
</tr>
<tr>
<td>Two</td>
<td>No Reminders</td>
<td>No Reminders</td>
<td>No Reminders</td>
</tr>
<tr>
<td>Three</td>
<td>Formal Reminder (see Appendix I)</td>
<td>Reminder Letter (see Appendix H)</td>
<td>Reminder Letter (see Appendix H)</td>
</tr>
<tr>
<td>Four</td>
<td>No Reminders</td>
<td>No Reminders</td>
<td>No Reminders</td>
</tr>
<tr>
<td>Five</td>
<td>Formal Reminder (see Appendix I)</td>
<td>Reminder Letters (see Appendix H)</td>
<td>Reminder Letters (see Appendix H)</td>
</tr>
</tbody>
</table>
References


Individuals with Disabilities Education Improvement Act, art. 118 § 23 (2004).


Vita

Troy Wayne Kieser

2375 E. Viking Road
Helen J. Stewart School
Clark County School District
Las Vegas, Nevada 89169
Office Phone: (702) 799-5588
E-mail Address: tkieser@interact.ccsd.net

Education

University of Nevada, Las Vegas
Ph.D., Special Education, May 2015
B.A., May 2006