

REGISTERED NURSES' ATTITUDES TOWARD
SUBSTANCE USE AND ABUSE

by

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ABSTRACT

Substance use disorder (SUD) is an escalating problem in the United States, both in the general population and nursing profession. The purpose of this quantitative research study was to explore the attitudes of registered nurses toward substance use and abuse. The variables of age, gender, ethnicity/race, years of nursing experience, highest degree of education, and nursing specialty were explored through the administration of the Substance Abuse Attitude Survey (SAAS) instrument. The first component, *attitude*, of the Theory of Planned Behavior (TPB) served as the framework for the study. Results of this study noted that Asians had more positive attitudes toward early identification and treatment than Caucasians and African Americans, suggesting culture may play a role in attitudes. Caucasians held the highest moralistic attitudes of all the ethnic groups. Additionally, nurses with 6-15 years of experience had the most permissive attitudes, while the 16-25 years of experience had more optimism in treatment success. Education played a major role in decreasing moralistic attitudes, with master's level only slightly surpassing doctoral prepared nurses. Medical-surgical nurses held the most negative and moralistic attitudes in the acute care specialties. Homecare had the most common thread of negativity in acceptance, stereotyping, and non-moralism attitudes in the non-acute care specialties.

DEDICATION

I would like to thank God for His grace, allowing me to come this far in my education. May all I have learned be used to glorify Him. This dissertation is dedicated with love to my husband, soul mate, and best friend, Curt, who tolerated the missed dinners, late nights, and lack of my attention so I could complete this project. To my wonderful children, Stephanie and Brian, Christina and Ryan, Carolyn and Levi, and John, and grandchildren Daniel, Joshua, Nathan, Elijah, Edward, and Juliet: Thank you for your love and support throughout the highs and lows of this journey, allowing me to fulfill a life-long dream. To my mother, Pat, thank you for always believing in me, and teaching me the true meaning of unconditional love. God has abundantly blessed me with the gift of family, and I am forever grateful that you are mine.

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Thank you all from the bottom of my heart.

LIST OF ABBREVIATIONS AND SYMBOLS

| | |
|-----------|---|
| <i>a</i> | Cronbach's index of internal consistency |
| <i>df</i> | Degrees of freedom: number of values free to vary after certain restrictions have been placed on the data |
| <i>F</i> | Fisher's ratio: a ratio of 2 variances of the means |
| <i>M</i> | Mean: the sum of a set of measurements divided by the number of measurements in the set |
| <i>N</i> | Total sample size |
| <i>n</i> | Subsample size |
| <i>p</i> | Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value |
| <i>SD</i> | Standard deviation |
| <i>t</i> | Computed value of <i>t</i> test |
| = | Equal to |

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CHAPTER I

INTRODUCTION

Substance use disorder (SUD) is an escalating problem in the United States and has been for many years (Maxwell, 2011; Monroe, Kenaga, Dietrick, Carter, & Cowan, 2013; O'Neill, 2015). The use of heroin dramatically increased in the United States from 2002-2013 (women 100%; men 50%) [Centers for Disease Control (CDC), 2015]. The American Psychiatric Association's (APA, 2013) *Diagnostic and Statistical Manual of Mental Disorders (DSM-V)* defined substance use disorder as the recurrent use of drugs or alcohol that impairs the ability of a person to function fully and meet the major duties at work, home, or school. Also included in this definition are the characteristics associated with SUD, such as a loss of control, risky behavior, and social impairment (APA, 2013). Substance use disorder not only occurs in the general population, but also afflicts healthcare providers. As early as the era of Florence Nightingale, the use of drugs and alcohol has been an issue affecting the nursing profession (Burton, 2014; Heise, 2003). It continues to be a problem today, as it interferes with nurses' abilities to fulfill their professional and ethical obligations in providing competent care to patients (Dunn, 2005; Kunyk, 2015; Monroe, Pearson, & Kenaga, 2008).

Statement of the Problem

The responsibility for patient safety is considered a top priority in the nursing profession. Not only does substance use disorder have the potential to affect the impaired nurse, but also patients, organizations, and the nursing profession as a whole. Patient safety is compromised by impaired nursing practice (Cares, Pace, Denious, & Crane, 2015; Kunyk, 2015; Monroe et al.,

2008). It is imperative that impaired nurses are quickly identified and offered treatment for SUD. Unfortunately, it is rare that a suspected or impaired nurse is recognized prior to an adverse event occurring that involves either a patient or the impaired practitioner (Bettinardi-Angres & Bologeorges, 2011; Clark & Farnsworth, 2006).

Nurses are both legally and ethically responsible for reporting suspected impairment in colleagues [American Nurses Association (ANA), 2015; Bettinardi & Bologeorges, 2011; Kunyk & Austin, 2011; Talbert, 2009]. However, research continued to show a lack of reporting impairment in colleagues by fellow nurses (Jason, 2015; Talbert, 2009; Thomas & Siela, 2011; Van Boekel, Brouwers, Weeghel, & Garretsen, 2013). It has been suggested that nurses' attitudes toward substance use and abuse play an important role in the recognition of and response to impairment in colleagues (Bettinardi & Bologeorges, 2011; Lillibridge, Cox, & Cross, 2002; Kunyk, 2015). In addition, a lack of knowledge regarding the characteristics of nursing impairment, related behaviors, treatment options, and reporting processes have also been identified as contributing to the lack of recognition and reporting of SUD (Kunyk, 2015).

Purpose of the Study

The purpose of this research study was four-fold: (a) to determine if differences existed between registered nurses' attitudes toward substance use and abuse and the demographic information of age, gender, and ethnicity/race; (b) to determine if differences existed between registered nurses' attitudes toward substance use and abuse and years of experience as a registered nurse (i.e., 0 to 5 years, 6 to 15 years, 16 to 25 years, and greater than 25 years); (c) to determine if differences existed between registered nurses' attitudes toward substance use and abuse and the highest degree of education obtained by a nurse (i.e., associate, baccalaureate, master's, and

doctoral); and (d) to determine if differences existed between registered nurses' attitudes toward substance use and abuse and nursing specialty areas.

Significance of the Study

This research study explored the attitudes of registered nurses toward substance use and abuse in a northeastern state nurses' association. The recognition of registered nurses' attitudes toward substance abuse is necessary for the determination of beliefs and subsequent behaviors in recognizing and reporting impairment in colleagues. The aim of this study was to determine if differences existed between registered nurses' attitudes toward substance use and abuse and personal or professional demographics. The results from this study may be used to guide future research endeavors and further explore nurses' behavioral responses to SUD in colleagues. In addition, study findings may be used to guide the development of future educational programs, empowering nurses in the recognition and reporting of impaired colleagues. Ultimately, patient safety may be improved and the negative impact of SUD on families, organizations, and the nursing profession will be minimized.

Research Questions

The research questions for this study included

1. Are there differences between registered nurses' attitudes toward substance use and abuse and the demographic information of age, gender, and ethnicity/race?
2. Are there differences between registered nurses' attitudes toward substance use and abuse and years of experience as a nurse (i.e., 0 to 5 years, 6 to 15 years, 16 to 25 years, and greater than 25 years)?

3. Are there differences between registered nurses' attitudes toward substance use and abuse and the highest degree of education obtained by a nurse (i.e., associate, baccalaureate, master's, and doctoral)?

4. Are there differences between registered nurses' attitudes toward substance use and abuse and nursing specialty areas?

Definition of Terms

For the purpose of this study, the following definitions were used:

1. *Attitude*—Attitude was defined as the inclination to respond consistently in a positive or negative manner to a given belief, idea, or object (Fishbein & Ajzen, 1975). In this study, attitude was assessed through participants' scores on the Substance Abuse Attitude Survey instrument (Chappel, Veach, & Krug, 1985).

2. *Highest degree of education*—The highest degree of education referred to an individual's attainment of the following levels of education as delineated by the American Association of Colleges of Nurses (AACN, 2014): associate, baccalaureate, master's, and doctoral degrees. This was assessed utilizing participants' responses to the professional demographic section of the survey.

3. *Impaired nurse/colleague*—For the purpose of this study, the term 'impaired nurse/colleague' was defined as a "licensee who is unable to practice with professional skill and safety by reason of habitual or excessive use or abuse of drugs, alcohol, or other substances that impair their ability" (Jason, 2015, p. 6).

4. *Nursing specialty*—This was defined as an area of nursing practice that incorporates continuing education and professional resources along with specialty practice standards and

guidelines to describe a distinct focus of practice (ANA, 2010). This was assessed utilizing participants' responses to the professional demographic section of the survey.

5. *Registered Nurses*—This term is defined as individuals who possess an unencumbered, state-issued, registered professional nursing license.

6. *Substance use disorder*—SUD is defined as the recurrent use of drugs or alcohol that impair the ability of a person to function fully and meet the major duties of work, home, or school (APA, 2013).

7. *Years of nursing experience*—This refers to the number of years a nurse has accrued between the time of his/her successful completion of National Council Licensure Examination (NCLEX) and participation in this survey. This was measured by participants' responses to the professional demographic section of the survey.

Theoretical Framework

The Theory of Planned Behavior (TPB) (Ajzen, 1985) provided the framework for this study and served as a lens to examine the attitudes of nurses toward substance use and abuse. The TPB was developed by Ajzen (1985) and originated from the earlier, collaborative work of Fishbein and Ajzen (1975) on the Theory of Reasoned Action (TRA). The TRA described behavioral and normative beliefs as predictors of behavioral intent (Fishbein & Ajzen, 1975). Ajzen (1985) later went on to develop the TPB, that involved the addition of a third element, perceived behavioral control, as another important predictor of behavior that needed to be considered (Ajzen, 1985; Fishbein & Ajzen, 2010).

According to Ajzen's TPB (1985), behavior is influenced by three types of beliefs, behavioral, normative, and control. Behavioral beliefs have been found to influence one's attitudes and can affect one's performance, either in a positive or negative direction (Ajzen, 2002; Fishbein

& Ajzen, 1975, 2010). The second belief, normative, suggests that the subjective norms of this belief influence the actual performance of a behavior by personal perceptions of approval or disapproval by others as it relates to the behavior (Fishbein & Ajzen, 2010; Madden, Ellen, & Ajzen, 1992). The impact of others' influence at this level is thought to enact social leverage on an individual's decision to perform or avoid a behavior. The third belief, control, reflects how difficult or easy it is for an individual to perform a behavior (Fishbein & Ajzen, 2010). Research has revealed that positive behavioral intent, coupled with positive attitudes, strong subjective norms, and a greater sense of control increases the likelihood of an individual to perform a specific behavior (Ajzen, 1985, 1991; Ajzen & Madden, 1986; Fishbein & Ajzen, 2010). These three components of the TPB are depicted in Table 1.

Table 1

Theory of Planned Behavior (Modified from Ajzen, 1985)

| <u>Behavioral Beliefs</u> | <u>Normative Beliefs</u> | <u>Control Beliefs</u> |
|---|---|--|
| Belief that the behavior will have a positive or negative outcome | The behavior will elicit approval or disapproval from a significant person. Includes a person's motivation to please the significant person/entity. | Influenced by factors that increase or decrease the perceived difficulty of the behavior and the perceived power that this factor has to inhibit or facilitate the behavior. |
| Expectations ↓ Attitudes | Support of Others ↓ Subjective Norms | Control of Behavior ↓ Perceived Behavioral Control |

With the increase of substance use on the rise in both the general population and the nursing profession, it is crucial that additional studies be conducted to learn more about the

behavioral response of nurses when confronted with an impaired colleague. Using the first component of Ajzen's (1985) TPB, *attitude*, this study tested the following hypotheses:

Hypothesis 1: There will be significant differences between nurses' attitudes toward substance use and abuse and the demographic information of age, gender, and ethnicity/race.

Hypothesis 2: There will be significant differences between nurses' attitudes toward substance use and abuse and years of experience as a nurse (i.e., 0 to 5 years, 6 to 15 years, 16 to 25 years, and greater than 25 years).

Hypothesis 3: There will be significant differences between registered nurses' attitudes toward substance use and abuse and the highest degree of education obtained by the nurse (i.e., associate, baccalaureate, master's, and doctoral).

Hypothesis 4: There will be significant differences between registered nurses' attitudes about substance use and abuse and nursing specialty areas.

Summary

Substance use disorder is a serious concern for both the general public and the nursing profession. While research indicated the percentage of nurses experiencing SUD mirrors that of the public (Bettinardi-Angres, Pickett, & Patrick, 2012), only a small percentage of nurses receive care for this condition [National Council of State Boards of Nursing (NCSBN), 2013]. Guided by the TPB, this study investigated the attitudes of nurses toward substance use and abuse, an initial step in examining registered nurses' responses toward impaired nursing colleagues. This study, based on the first component of the TPB (Fishbein & Ajzen, 1975), was conducted to determine if differences existed between nurses' attitudes toward substance use and abuse and various personal and professional demographics. Ascertaining attitudes of registered nurses may serve to guide

future educational opportunities that promote and support the recognition and subsequent reporting practices of impaired nursing colleagues.

Moreover, Chapter II provides a comprehensive review of the literature regarding SUD in nursing. Included in this chapter is an overview of SUD, current theories of substance abuse, prevalence of SUD in the general population and nursing profession, common drugs of abuse by nurses, characteristics and consequences of SUD in nurses, professional responsibilities, attitudes of nurses toward impairment in patients and nurses, and gaps in the literature. Chapter III discusses the methodologies utilized in the study. This includes information regarding the study participants, research design, instrumentation, data collection, data analysis methods, and consent processes. Chapter IV describes the results of the study, specifically reporting on data analysis. Chapter V concludes the study. This section summarizes the major findings of the study, strengths and limitations of the research, and implications for theory, practice, education, and future research.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter provides a comprehensive review of the literature on substance use disorder. Current theories regarding substance abuse and the diagnostic criteria are reviewed. The prevalence of SUD in nurses and the general population, characteristics of SUD in nurses, and common drugs of abuse are also discussed. Consequences of impaired nursing practice and the professional responsibility of nurses regarding colleagues with suspected impairment are examined. An overview of attitudes and behavior toward SUD are reviewed. Lastly, gaps in the literature are discussed and future research studies are suggested.

Overview of Substance Use Disorder

Substance use disorder is defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) as the recurrent use of drugs or alcohol causing impairment of a person's ability to fully function and meet the major duties of work, home, or school (APA, 2013). The DSM-V (APA, 2013) has identified nine categories of substance-related disorders that include alcohol, opioids, hallucinogens, stimulants, cannabis, tobacco, inhalants, caffeine, and anxiolytics/hypnotics/sedatives. Regardless of the substance abused, there are four main characteristics associated with substance use disorder. These include impaired control, social impairment, risky use, and pharmacological indicators such as tolerance and withdrawal (APA, 2013).

Current Theories Related to Substance Use

Over the past several decades, theories regarding substance use and abuse have continued to emerge. Currently, the most accepted theory is the biopsychosocial theory, which is inclusive of factors from the biological, psychological, and social domains (Potter & Moller, 2016). A review of each of these domains is necessary to understand the complexities of the combined biopsychosocial system. Physiologically, brain function is altered with the use of addictive substances [National Institute of Drug Abuse (NIDA), 2011]. Prior to the understanding of the physiological impact of addictive substances, SUD was believed to have its basis in behavioral actions. Later, societal and cultural factors were identified as playing a role in this complex disorder (Gonzalez-Guarda et al., 2012). More recently, recognition of the multifaceted complexities associated with substance use disorder has led to the current theory of the biopsychosocial model (Potter & Moller, 2016).

Biological Theories Related to Substance Use

From the biological perspective, the circuitry of the brain is altered through prolonged exposure to addictive substances (London, Kohno, Morales, & Ballard, 2015). As changes in memory and learning are affected from substances, it is believed that the brain undergoes a form of neuroadaptation (Potter & Moller, 2016). Neuroadaptation is defined as alterations in “neuronal excitability, synaptic function, neuron architecture, and expression of genes associated with neural plasticity after exposure to drugs or alcohol” (Volman, 2007, p. 4). The exact exposure to these substances varies among individuals, suggesting that some substance users develop addictive disorders after only a few exposures, while others never develop a dependency to substances (Erickson, 2007).

The American Society of Addictions Medicine (2011) described addiction as “a primary chronic disease of brain reward, motivation, memory, and related circuitry” (§ 1). Although SUD was originally thought to be the result of a lack of behavioral control, current research supports that chemical changes in the brain act upon the mesolimbic system where the pleasure center and instinctual drives are located (Brick & Erickson, 2006; Wright et al., 2012). The brain recognizes and remembers the sensation of pleasure when the neural pathways release dopamine. This results in a sense of euphoria from the substance use. As the levels of euphoria dwindle, the desire to return to the heightened state of pleasure through the use of additional substances returns (Potter & Moller, 2016). This cycle of substance use is the biological beginning of tolerance (Potter & Moller, 2016). As substance use increases, the abrupt cessation of the substance can cause withdrawal. The process of withdrawal is described as “a predictable constellation of signs and symptoms following the abrupt discontinuation of, or rapid decrease in dosage of a psychoactive substance” (Reis, Miller, Fiellin, & Saitz, 2009, p. 552). Symptoms associated with the withdrawal process vary, and are dependent on the type of substance used (Potter & Moller, 2016). Understanding the biological portion of the biopsychosocial model aids caregivers, family members, and significant others in recognizing SUD as a disease process.

Psychological Theories Related to Substance Use

The initiation of substance use does not typically occur as an isolated, conscious decision. Oftentimes it is in response to stressful situations, trauma, relational and financial changes, and other circumstances beyond an individual’s sense of control (Mignon, Marcoux-Faiia, Myers, & Rubington, 2009; Servodidio, 2011). This alteration of insight regarding an individual’s locus of control can have a negative impact of a person’s choices and behaviors (Potter & Moller, 2016; Valdes, 2014). The potential for prescription drug abuse among nursing professionals is linked to

the need to self-medicate for the treatment of chronic pain, anxiety, and depression, coupled with nurses' increased access to addictive substances (Malliarakis, Smith, & Darbro, 2012). One of the key characteristics of altered insight, commonly noted in those with SUD, is denial. This defense mechanism serves to keep the use and/or consequences associated with substance abuse out of the individual's conscious awareness (Burton, 2014; Valdes, 2014; Warren, Feit, & Wells, 2011). This guards the individual against painful or uncomfortable thoughts and feelings related to their substance use (Burton, 2014; Haase, 2016). In addition, substance abusers frequently experience feelings of hopelessness, anxiety, depression, and suicidal thoughts. Often, individuals with substance abuse issues are criticized and labeled, thus adding to their feelings of low self-esteem, their inability to cope, and a loss of control (Goode, 2007; Potter & Moller, 2016; Valdez, 2014).

Social Theories Related to Substance Use

Various elements of an individual's social system including their educational level, economic status, and cultural practices may contribute to the development or continuation of an illness (Rundio, 2013). Relationships with family, friends, peers, authority figures, organizational regulations, cultural expectations, and spiritual beliefs have a substantive impact on the behavior of an individual (Potter & Moller, 2016; Samenow, 2010; Sperry, Powers, & Griffith, 2008). These elements have also been found to play a role in the development of substance use and abuse. Complications of the social system include responses of family and friends who demonstrate enabling behaviors, which further perpetuate substance use and abuse. As a result, these behaviors protect individuals from the consequences of their actions regarding substance use and abuse, thus enhancing the denial that a problem exists (Epstein, Burns, & Conlon, 2010; New, 2014). Research reports the positive influence that cultural and ethnic identities have on preventing drug use and abuse (Abbott & Chase, 2008; Blume, 2016; NIDA, 2011). This cultural phenomenon,

along with other elements of an individual's social system, is thought to serve as a protective mechanism against substance use and abuse.

Currently, the biopsychosocial model is the most widely used approach in the care of SUD (Potter & Moller, 2016). Recognizing the multifaceted, complex nature of addiction, experts support the need to address the biological, psychological, and social domains for successful treatment of those afflicted with SUD.

History of SUD in the Nursing Profession

The use of illicit substances in the nursing profession has been reported since the time of Florence Nightingale (Burton, 2014; Heise, 2003). In a letter to Sir Thomas Watson Bart in 1867, Nightingale described hospital nurses as “too old, too weak, too drunken, too dirty, too stolid, or too bad to do anything else” (Nightingale as cited in Abel-Smith, 1960). Jane Gibson, a nurse who traveled with Florence Nightingale during the Crimean War, was dismissed from duties after reporting to work intoxicated (Boulton & Nosek, 2014; Monahan, 2003). In an article from 1907, six nurses were reported to have been using alcohol to assist with their sleep, and subsequently dismissed from duty (Heise, 2003; Kunyk & Austin, 2011). Although SUD has been present within the nursing profession for the last 150 years, it was not until the 1980s that the deleterious impact on patient safety and quality of care brought an increased attention to chemical dependence in the nursing workplace (Boulton & Nosek, 2014).

Prevalence of Substance Use Disorder

The use of illegal or prescribed substances outside the parameter of a practitioner's order can have serious negative health effects. Over 50% of people who misused prescription painkillers acquired them from a family member or friend, whereas 22.1% were prescribed the medication from their physician/practitioner [Substance Abuse and Mental Health Services Administration

(SAMHSA, 2015]. Reports from the 2014 National Survey on Drug Use and Health (NSDUH) indicated that 4.3 million Americans used prescription painkillers for nonmedical use. The average age for initial nonmedical painkiller use has been identified as 21.2 years (NSDUH, 2014). Prescription medications are more often abused than any other drugs except marijuana and alcohol (SAMHSA, 2015). This increase is attributed to misperceptions regarding the safety of prescription drugs and their increased availability (SAMHSA, 2015).

According to the NSDUH (2014), most heroin users have used at least one other drug, and the majority have used three. Also recognized in the survey, individuals with an addiction to alcohol were twice as likely to become heroin addicts. Marijuana addicts were three times more susceptible to becoming a heroin addict. Cocaine and prescription opioid use were also reported as 15 and 40 times more likely than heroin addiction, respectively (NSDUH, 2014).

SUD in the Nursing Profession

Actual statistical information on the percentages of nurses with SUD is difficult to obtain. An overall knowledge deficit regarding the signs and symptoms of chemical dependency (Bettinardi-Angres & Angres, 2010), along with reporting procedures (Angres, Bettinardi-Angres, & Cross, 2010) contribute to the lack of accurate statistics on SUD in nurses. Additional barriers to reporting suspected impairment include loyalty to a colleague, fear of appearing hypocritical, the potential to jeopardize one's license, and fear of reprisal (Dunn, 2005; Thomas & Siela, 2011). Barriers to self-reporting SUD include fear, embarrassment, lack of knowledge of assistance programs, no insurance, or inability to pay (Cares et al., 2015).

In a recent study, 57% of nurses claimed they would not want to report a colleague even if they were suspicious of drug or alcohol use in the workplace (Bettinardi & Bologeorges, 2011). "This lack of intervention not only enables addicted nurses in the workplace, it compromises the

workplace legally and financially” (Bettinardi & Bologeorges, 2011, p. 12). It has been reported that many years of nursing experience played a positive role in the confrontation and reporting of a colleague suspected of impairment (Bettinardi & Bologeorges, 2011; Maurits, de Veer, Groenewegen, & Francke, 2016). Lillibridge et al. (2002) identified a lack of care as a barrier to reporting. Nurses verbalized a strong desire to be personally uninvolved in these situations in the workplace. More recent studies also identified a lack of empathy among nurses toward impaired colleagues (Kunyk & Austin, 2011; Monroe et al., 2008). This lack of care contradicts the premise that compassion is the hallmark of the nursing profession.

Substance use disorder in nurses is difficult to envision since educational achievement of the individual is one of the main contrasts between nurses and those with SUD in the general population (Dittman, 2008). In addition, frequent behavioral patterns such as irresponsibility, criminal activity, licentiousness, insecurity, and selfishness are associated with persons with SUD, whereas these behaviors are in direct contrast to societal views of the professional nurse (Dittman, 2008; Ljubicic, Labas, & Nastasic, 2013).

SUD in Nursing Specialties

Numerous studies have found a higher incidence of SUD among nurses working in specific nursing specialties (Bettinardi-Angres & Bologeorges, 2011; Boulton & Nosek, 2014; Darbro & Malliarakis, 2012; Hamza & Monroe, 2011; Merlo, Trejo-Lopez, Conwell, & Rivenbark, 2013; Raistrick, Tober & Unsworth, 2015; Rudio, 2013). Studies reported the non-therapeutic use of prescription medications as being more prevalent among nurses working in critical care settings (Bettinardi-Angres & Bologeorges, 2011; Dunn, 2005; Wilson & Compton, 2009), emergency departments (Bettinardi-Angres & Bologeorges, 2011), oncology units (Bettinardi-Angres & Bologeorges, 2011; Dunn, 2005; Epstein et al., 2010; Talbert, 2009), psychiatric units (Bettinardi-

Angres & Bologeorges, 2011; Copp, 2009), and home health specialties (Hamza & Monroe, 2011; Maurits et al., 2016). Oncology nurses were reported as one of the groups most frequently using substances, especially alcohol, as a means of coping with the stress associated with death and dying in daily practice (Talbert, 2009). The increased access to medications is also partially responsible for the elevated numbers of SUD in the oncology specialty (Talbert, 2009). Certified Registered Nurse Anesthetists (CRNA) have also been found to have an increased risk of substance misuse and drug diversion. This was attributed to the ease of access, exposure to death and dying, and higher levels of stress among this cohort (Hamza & Monroe, 2011; New, 2014; Rundio, 2013; Wright et al., 2012).

Characteristics of Substance Use Disorder in Nurses

Nurses with SUD often exhibit physical, behavioral, and performance characteristics, bringing their professional practice into question. Physical signs include, but are not limited to, runny nose, tremulous hands, pinpoint pupils, noticeable anxiety, slurred speech, gastrointestinal concerns, watery eyes, and an excessive use of breath-mints (Dwyer & Williams, 2002; Hrobak, 2003; Monroe & Kenaga, 2010). Long-term substance use leads to both overt and covert sequelae.

Behavioral symptoms include changes in personality, frequent episodes of irritability, mood swings, unkempt appearances, preferences for night shifts, poorly explained errors, difficulty recalling directions, issues with authority, and frequent absences (Epstein et al., 2010; Monroe & Kenaga, 2010). Impaired nurses take frequent breaks, take trips to their lockers and restrooms, become confused with work schedules, and show up in clinical areas during scheduled time off (Nutty, 2016). Other behaviors include deteriorating work habits, isolation from coworkers, obsession with drug-dispensing units, volunteering to medicate coworkers' patients, and substandard documentation (Dwyer & Williams, 2002; Hrobak, 2003). Other behavioral

changes in nurses with SUD are the loss of inhibition, risky behaviors (Raistrick et al., 2015; Volkow, Koob, & McLellan, 2016), and a decreased ability to make good decisions (Kunyk & Austin, 2011; Malliarakis et al., 2012).

Performance issues of impaired nurses include an inability to meet deadlines and schedules, blaming attitudes, overreactions to comments and criticisms, and difficulty in prioritizing work demands (Burton, 2014; Monroe & Kenaga, 2010). Nurses with SUD are often involved with circumstances surrounding frequent drug spills or vial breakage, medication errors, and patient complaints of pain relief not proportionate to pain medication administration records (Monroe & Kenaga, 2010). Audits of controlled drug usages revealed that nurses with SUD sign out more controlled substances than other nurses and have disproportionate wastes and disposal without witnesses (Nutty, 2016).

Interestingly, despite these noted characteristics, nurses with SUD are often described by their coworkers, instructors, and supervisors as over-achievers, well educated, and are frequently ranked in the top third of their class (Patrick, 2010). Many hold advanced nursing degrees and specialty certifications. They are generally liked by their colleagues and viewed as hard-working, efficient nurses (Monahan, 2003; Patrick, 2010). Nurses with SUD are portrayed as a manager's ideal employee by volunteering for additional hours or shifts (Patrick, 2010). Due to the non-specific behavioral changes associated with the abuse of substances, difficulty with job performance occurs insidiously (Monroe & Kenaga, 2010).

Some nurses believe that the use of substances is an appropriate method of self-care and reliance on mind-altering substances as a method of dealing with daily problems and an acceptable means of coping (Clark & Farnsworth, 2006; Luck & Hedrick, 2004). Another flawed attitude frequently found among nurses with SUD is a sense of invincibility regarding the loss of control

associated with addiction. This false sense of security blinds the individual to the possibility of the occurrence of a substance use disorder within themselves and prevents them from seeking treatment (Clark & Farnsworth, 2006; Luck & Hedrick, 2004).

Common Drugs of Abuse by Nurses

Drugs commonly used by nurses tend to differ from non-nurse substance abusers. Unlike the drugs commonly used in the general population, nurses are more likely to use prescription opioid analgesics (Clark & Farnsworth, 2006; Dunn, 2005; Shaw, McGovern, Angres, & Rawal, 2004; Trinkoff, Zhou, Storr, & Soeken, 2000). They also frequently abuse alcohol, amphetamines, and sedatives (Dunn, 2005; Thomas & Siela, 2011). As with the increase in substance abuse in the general population, nurses also experience an increase in the use of street drugs as their addiction escalates and their ability to obtain prescription medication decreases (Horton-Deutsch, McNelis, & Day, 2011; Monroe et al., 2013).

Consequences of Substance Abuse in Nurses

There are numerous consequences of substance use disorder in nurses. Impaired nurses experience more workplace injuries and have an increased risk of errors (Kunyk & Austin, 2011; Nutty, 2016). The negative performance that results from substance use leads to a decrease in alertness, reaction time, coordination, concentration, perception, and an increase in disinhibition (Kunyk & Austin, 2011). Impaired nurses utilize denial to the extent that they do not perceive their addiction as impacting their ability to work (Lillibridge et al., 2002). In addition, many nurses believe that their extensive knowledge of medications also precludes them from developing SUD (Trinkoff et al., 2000; Wright et al., 2012).

Impact on Patient Safety

Patient safety is compromised by impaired practice (James & Omaoaregba, 2013; Kunyk, 2015). Impaired nurses produce grave and potentially fatal outcomes (Nuttly, 2016) due to the negative effect of substances on an individual's alertness, coordination, perception, and other changes in physical and mental capabilities (Dittman, 2008; Kleber, Rice, & Anton, 2006; Kunyk & Austin, 2011). While a priority goal of professional nursing is to provide safe and effective care to patients, alterations in judgment and actions significantly jeopardize the delivery of care (Copp, 2009; Warren et al., 2011). In addition, impaired nursing practice negatively affects societal perceptions of nurses and the profession as a whole (Kunyk & Austin, 2011; Monroe & Kenaga, 2010).

Professional Responsibilities Related to SUD in Nursing

According to the American Nurses Association Code of Ethics, provision 3, "The nurse promotes, advocates for, and protects the rights, health and safety of the patient" (ANA, 2015, p. 8). Threats to patient safety occur when a nurse is unable to competently function due to impairment from substance use (Kunyk, 2015; Kunyk & Austin, 2011). In addition, the Code of Ethics (ANA, 2015) clearly described the nurse's role and responsibility in dealing with an impaired colleague. Provision 3.5, entitled the *Protection of Patient Health and Safety by Acting on Questionable Practice* (ANA, 2015), stated that nurses are responsible for taking the "appropriate action in all instances of incompetent, unethical, illegal, or impaired practice or actions that place the rights or best interests of the patient in jeopardy" (ANA, 2015, p. 17). Similarly, healthcare institutions also require nurses to report any suspicious or questionable practice observed in colleagues.

In addition, the ANA requires all nurses to advocate for and support impaired colleagues, ensure appropriate treatment is received, and ensure fair institutional practices are enacted (Bettinardi & Bologeorges, 2011; Kunyk & Austin, 2011). Nurses can support and encourage colleagues struggling with SUD by treating them with compassion, speaking openly about SUD, and assisting them in obtaining the required treatment to address their illness (Nutty, 2016).

Recent studies indicated that the recognition and moral responsibility of reporting impaired nursing colleagues is frequently neglected in many healthcare settings (Boulton & Nosek, 2014; Darbro & Malliarakis, 2012; Jason, 2015). In a pivotal study by Kunyk (2015), the inability to recognize impaired nursing colleagues was identified. Additionally, this study revealed the ambiguity nurses felt about confronting an impaired nurse as the initial step in reporting. Although the nurses surveyed were aware of their moral and ethical responsibility to report impairment to their managers, they were hesitant to have the managers report the nurse to administration (Kunyk, 2015).

Barriers to Reporting Impaired Nurses

There is evidence to suggest that many nurses do not report impaired colleagues even when they suspect or identify them (Bettinardi-Angres & Bologeorges, 2011). Multiple studies suggested fear of repercussion, retaliation, fear of being a hypocrite, loyalty to a colleague, guilt, or jeopardizing a person's license to practice as barriers to reporting impaired colleagues (Bettinardi-Angres & Bologeorges, 2011; Dunn, 2005; McHugh, Papastrat, & Ashton, 2011). Other reasons cited in the literature for not reporting impaired colleagues included concerns of a lack of administrative support (Burgan & Dunphy, 2011), a lack of knowledge of chemical dependence symptoms (Bettinardi-Angres & Bologeorges, 2011; Cares et al., 2015; Kunyk, 2015),

the lack of a well-established protocol for reporting (Angres et al., 2010), and a decrease in peer caring within the workplace (Lillibridge et al., 2002).

Results of a study by Bettinardi-Angres and Bologeorges (2011) clearly identified a reluctance among nurses to report suspected impairment among colleagues. However, reporting and referral are key components in addressing suspected impairment among colleagues. Many nurses believe that someone else will report an impaired colleague, such as a manager or a supervisor (Bettinardi-Angres & Bologeorges, 2011; DesRoches et al., 2010). An unusual barrier to reporting suspected impairment among colleagues is the use of the word *confrontation* (Bettinardi-Angres & Bologeorges, 2011). Findings suggested that merely using more compassionate terminology, such as *helping a colleague when impaired*, might increase reporting.

Attitudes

Attitude is defined as an inclination to respond consistently in a positive or negative manner to a given belief, idea, or object (Fishbein & Ajzen, 1975). Research indicated that behavior is guided by one's views, and is inclusive of behavioral, normative, and control beliefs (Ajzen, 2005; Fishbein & Ajzen, 2010). Theorists purported that behavioral beliefs shape one's attitude (Fishbein & Ajzen, 2010; Vincent, Riley, & Wilkie, 2015). Attitude can be conceptualized into two major components: affective and cognitive (Breckler & Wiggins, 1989; Ford-Martin, 2016). These components directly influence the choices an individual makes in specific circumstances and situations (Ryffel & Wirth, 2016). Affective components that impact an individual's attitude include emotions and feelings toward an object, while the cognitive component is related to one's beliefs and judgments (Trendel & Werle, 2016). This aligns with Fishbein and Ajzen's TPB (1975), as the affective component of attitude corresponds with the intention to perform a specific behavior. Attitudes affect the strength of the relationship between

one's intentions and behavior or actions. (Lev-Ran, Adler, Nitzan, & Fennig, 2013; Trendel & Werle, 2016).

Nurses' Attitudes Toward Impaired Patients

Nurses encounter substance abuse in the general population in all facets of nursing. Over the last decade, additional research has been focused on the investigation of nurses' attitudes towards patients with SUD (Chu & Galang, 2013; Cund, 2013; Natan, Beyil, & Neta, 2009). Research suggested that some healthcare providers hold negative attitudes toward patients with substance use disorders and offer less screening and fewer interventions for this patient population (Mitchell et al., 2016; Van Boekel et al., 2013). Several studies revealed that registered nurses (RNs) regard patients with substance abuse issues as problem patients (Chu & Galang, 2015; Lovi & Barr, 2009). Lovi and Barr (2009) reported the belief among nurses that SUD is self-inflicted and that these patients are not as deserving of care. These negative attitudes contribute to judgmental remarks and demeaning comments regarding patients with SUD (Chu & Galang, 2015; Lovi & Barr, 2009; Van Boekel et al., 2013). In addition to having negative attitudes toward patients, nurses with limited experience or education with SUD exhibit a decreased use of evidence-based practice when caring for those with addiction disorders (Robertson, Walker, Stovall, & McCluskey, 2015). Although nurses believe it is their responsibility to provide care to all patients, attitudes toward patients with SUD have been thought to negatively affect the therapeutic relationship and ultimately the nursing care rendered to those who abuse substances (Chu & Galang, 2015; van Boekel et al., 2013).

Healthcare providers' attitudes toward people with substance abuse issues perpetuates negative stereotyping (Gilcrist et al., 2011; Van Boekel et al., 2013). It is estimated that those with SUD are more stigmatized in healthcare than other chronic, progressive diseases such as leprosy,

AIDS, and obesity (Happell, Carta, & Pinikahana, 2002; Lev-Ran et al., 2013). These negative attitudes may foster detrimental consequences in the form of inappropriate decision-making and delays in treatments by nurses and other healthcare professionals (Lovi & Barr, 2009; Natan et al., 2009; van Boekel et al., 2013). Research suggested that increased education (Happell et al., 2002) and exposure to those with SUD positively impacts nurses' attitudes toward this type of patient (Robertson et al., 2015). Although nurses' attitudes have been found to be more accepting of patients with addiction disorders than other healthcare professionals, research suggested that some nurses continue to view SUD as a character flaw or personal weakness (Howard & Chung, 2000; Van Boekel et al., 2013) with little expectation for a full recovery (Vadlamudi, Adams, Hogan, Wu, & Wahid, 2008).

Nurses' Attitudes Toward Impaired Colleagues

Similar to nurses' attitudes toward patients with SUD, nurses' attitudes toward impaired colleagues also tend to be negative. Nurse colleagues view job impairment as a serious infraction, and find it difficult to be compassionate when patients and other colleagues are placed at risk (Kunyk & Austin, 2011). Lillibridge et al. (2002) surveyed recovering nurses who reported that most managerial nurses attempted to avoid confrontation with their staff nurses regarding issues surrounding substance use and abuse. This finding implies a posture of denial toward impaired nurses from the managerial level, despite the recognition that colleagues' attitudes play an important role in the recognition, prevention, and re-entry into the nursing work force (Lillibridge et al., 2002).

There is a scarcity of research on the reporting patterns of nurses toward impaired colleagues and the longevity of nursing experience. In a qualitative study involving nurses with many years of practice, a common theme identified was the increased reporting confidence felt

from having past experience with impaired colleagues (Bettinardi-Angres & Bologeorges, 2011). Another theme noted was the personal remorse of nurses for not reporting suspected impairment in past situations (Bettinardi-Angres & Bologeorges, 2011).

Table 2 depicts a synopsis of current literature related to the prevalence of SUD in nursing, attitudes of healthcare providers towards those who use and abuse substances, and barriers that impact successful educational opportunities related to SUD in nursing colleagues.

Table 2

Current Studies Related to Substance Use Disorder

| | |
|---|--|
| Kunyk, 2015 <i>Quantitative Study</i> | Investigated the prevalence of SUD in nursing practice and reported stigma and shame as barriers to reporting. |
| Cares et al., 2015 <i>Quantitative Study</i> | Prevalence of SUD among nurses is difficult to determine; the impact of behavioral patterns is often underestimated along with fear of legal and professional repercussions. |
| Van Boekel et al., 2013 <i>Systematic Review</i> | Assessed healthcare providers' attitudes toward patients with SUD and described factors that caused negative attitudes. |
| James & Omoaregba, 2013 <i>Quantitative Study</i> | Investigated the attitudes of medical students toward substance use and individuals who misuse them. |
| Chang & Yang, 2013 <i>Quantitative Cross-Sectional Study</i> | Investigated nurses' educational preparation of substance use issues and examined factors influencing nurses' attitudes toward clients with substance use problems. |
| Kalebka, Bruijns, & van Hoving, 2012 <i>Quantitative Study</i> | Barriers to reporting make it difficult to make successful educational changes |

Gaps in the Literature

In recent years, the body of knowledge regarding substance use and abuse has continued to develop. However, there remains a lack of empirical studies on substance use disorder in nursing. Additional quantitative studies are needed to more clearly identify the percentage of nurses with

SUD along with contributing factors. Studies investigating the standardization of administrative protocols for professional impairment are also warranted. Research regarding nurses' recognition of and reaction to impaired colleagues is needed. In addition, a better understanding of the barriers to reporting nurses with SUD is necessary (Boulton & Nosek, 2014; Darbro & Malliarakis, 2012). Standardized educational practices regarding SUD in nursing curricula also need to be explored. A lack of studies regarding collegial and administrative support for nurses who report impaired colleagues also exists.

Qualitative studies regarding this phenomenon are also warranted to explore the emotional aspect of nurses toward SUD in colleagues. In addition, exploring the lived experiences of nurses with SUD and their recovery process would also heighten awareness of this disorder. With the increase of substance use disorder among nurses, it is imperative that additional studies be conducted to further explore nurses' attitudes, subjective norms, and subsequent behavioral responses toward an impaired colleague.

Summary

A review of current theories regarding substance abuse, the prevalence of SUD in the general population and within the nursing profession were discussed. Attitudes of nurses toward patients and impaired colleagues were explored to glean an understanding of the impact of SUD on nursing practice. Consequences of impaired nursing practice and the professional responsibility of nurses regarding colleagues with suspected impairment were also examined.

CHAPTER III

METHODOLOGY

The descriptive design of this quantitative study was aimed at the examination of potential relationships between the attitudes of registered nurses toward substance use and abuse and the demographic information of age, gender, ethnicity, years of nursing experience, education, and clinical specialties. This chapter describes research methods used in this study, including information regarding participants, instruments, data collection, data analysis, and consent processes.

Participants

This study was based on the assumption that all registered nurses encounter people afflicted with SUD in the workplace, both as patients and as co-workers. A convenience sample was used for this study and consisted of licensed registered nurses who were members of a northeastern state nurses' association (SNA). The mission of the SNA is to aid in the advancement of the nursing profession through a myriad of activities that include education, networking, legislative policy, and advocacy [New Jersey State Nurses Association (NJSNA), 2017]. The state nurses' association represents the 125,000 registered nurse members within the 21 counties of the state of New Jersey, consisting of urban, suburban, and rural populations. A nursing license is required for membership in the NJSNA, along with a monthly membership fee of \$22.00. The NJSNA was selected for this study due to the diversity of nurses represented within the association with respect to age, gender, ethnicity, experience, education, and specialty areas within the nursing profession. Membership in NJSNA is not dependent on activity in practice or professional

domains. In the *New Jersey Nurse Workforce Report (2013-2014)* it was reported that the mean age of registered nurses was 50, predominantly female (92%), Caucasian (68%), with baccalaureate or higher degrees (48.2%). Additionally, the practice breakdown of registered nurses within New Jersey were acute care hospitals (50%), nursing home/extended care/assisted living (9%), and home health care (6%) (New Jersey Collaborating Center for Nursing Board, 2014).

The criteria for participation in this study included current membership in the state nurses' association and licensure as a registered professional nurse. Exclusion criteria included nurses with an encumbered license, those currently participating in an alternative to discipline program, and licensed practical nurses (LPNs). Participants were recruited from the state nurses' association listserv. The sample size for this study was determined using power analysis software. The required number of participants was identified as 180, using a probability of 0.80, with an alpha of 0.05. The actual number of participants completing the survey was 173.

Instrument

A two-part combined instrument was used for this study (see Appendix A). The first part addressed demographic data and was developed by this investigator to capture the following participant characteristics: (a) age, (b) gender, (c) ethnicity, (d) highest degree of education, (e) years of registered nurse experience, and (f) area of nursing specialty. Age grouping for this study was based on Erikson's stages of development (1950) that was revised to incorporate the psychosocial crises within decades of life (Capps, 2004). Gender was divided into three categories: male, female, and prefer not to answer, to allow the respondent choices in the categories in which they self-identified. Ethnicity/race descriptors were designated as broad categories, as the ethnicity of the state of New Jersey has continued to be one of the most heterogeneous states in the nation. According to the United States Census Bureau (2015), the

ethnic breakdown in New Jersey was Caucasian (77.1%), African American (13.3%), Hispanic (17.6%), and Asians (5.6%). There was an additional category of ‘other’ to capture the respondents who did not identify in the stated ethnicities. The descriptive categories in the years of nursing experience question were selected based on the approximate level of nursing competency, loosely associated with Benner’s Stages of Clinical Competence (1984). Although there are likely to be outliers of this generalization with the influx of second career adults, basic years of nursing experience were designed in this fashion. Lastly, nursing specialties were divided into two sections, acute care and non-acute care. Acute care represented nursing care that occurred within a hospital system, although some nursing specialties within this designation were same-day or out-patient services. Non-acute specialties referred to those nursing specialties that took place outside a hospital system. Examples of this type of nursing positions were home care, long-term care, and physicians’ offices. In both acute and non-acute specialty areas an ‘other’ designation was available to those who did not identify with the described nursing areas.

The second part of the survey utilized the Substance Abuse Attitudes Survey (SAAS) created by Chappel et al. (1985). The SAAS (Chappel et al., 1985) is a Likert-style survey that consists of 50 questions, each with a choice of five options, ranging from strongly disagree to strongly agree. The survey questions are divided into five subscales, as designed by the original authors. Of the 50 questions, 9 questions are not designated into prearranged subscales. The five labeled subscales are permissiveness, treatment intervention, non-stereotype, treatment optimism, and non-moralism.

The first SAAS subscale, permissiveness, indicates an attitude of acceptance toward substance use within the range of normal behavior. A sample of these questions on the SAAS that related to this attitude are listed in Table 3.

Table 3

Permissiveness Subscale of the SAAS

Marijuana should be legalized.
Marijuana use among teenagers can be healthy experimentation.
Personal use of drugs should be legal within the confines of one's own home.
Daily use of one marijuana cigarette is not necessarily harmful.
It can be normal for a teenager to experiment with drugs.
Parents should teach their children how to use alcohol.

(Chappel et al., 1985, n.p.)

The second subscale of the SAAS is treatment intervention. This attitude indicates an alignment of the identification of substance use or abuse within the context of treatment. There are eight statements representing this subscale. Statement examples of this subscale include “‘Family involvement is a very important part of the treatment of alcoholism or drug addiction,’ ‘Group therapy is a very important in the treatment of alcoholism or drug use,’ and ‘Paraprofessional counselors can provide effective treatment for alcohol and drug misusers’” (Chappel et al., 1985, n.p.).

The third SAAS subscale is non-stereotyping, which suggests a non-reliance on societal views and existing stereotypes of substance users and abusers. Ten statements comprise this subscale. Examples of this attitude are “‘People who use marijuana do not respect authority,’ ‘People who dress in hippie-style clothing usually use psychedelic drugs,’ and ‘All heroin leads to addiction’” (Chappel et al., 1985, n.p.).

Treatment optimism is an attitude that displays an optimistic awareness of early intervention and treatment outcomes (Chappel et al., 1985). Representative questions from this category are listed in Table 4.

Table 4

Treatment Optimism Subscale of the SAAS

An alcohol or drug-dependent person who has relapsed several times probably cannot be treated.
An alcohol or drug dependent person cannot be helped until he/she has hit 'rock bottom'.
Most alcohol and drug-dependent persons are unpleasant to work with as patients.
Drug addiction is a treatable illness.
Alcoholism is a treatable illness.

(Chappel et al., 1985, n.p.)

The fifth and final subscale of the SAAS, non-moralism, suggests a lack of moralistic attitudes toward those who use or abuse substances. The following questions on Table 5 are representative of this attitude.

Table 5

Non-Moralism Subscale of the SAAS

Clergymen should not drink in public.
A physician who has been addicted to narcotics should not be allowed to practice medicine again.
Street pushers are the initial source of drugs for young people.
Angry confrontation is necessary in the treatment of alcoholics or drug addicts.
Chronic alcoholics who refuse treatment should be legally committed to long-term treatment.

(Chappel et al., 1985, n.p.)

Psychometrics of the Instrument

Cronbach alpha coefficients from three past studies that utilized the SAAS were reviewed for reliability. These studies were from Chappel et al. (1985), the original authors of the instrument, James et al. (2013), and Warren et al. (2013). Each of the five subscales of the SAAS were reviewed. Table 6 provides a comparison of Cronbach alpha coefficients of the three studies.

Table 6

Cronbach Alpha Coefficients

| SAAS Subscales | Chappel et al., 1985 | Warren et al., 2013 | James et al., 2013 |
|------------------------|----------------------|---------------------|--------------------|
| Permissiveness | 0.77 | 0.84 | 0.40 |
| Treatment Intervention | 0.63 | 0.76 | 0.50 |
| Nonstereotype | 0.81 | 0.82 | 0.74 |
| Treatment Optimism | 0.67 | 0.67 | 0.32 |
| Nonmoralism | 0.67 | 0.80 | 0.50 |

Permission to use this instrument was obtained from the Ralph G. Connor Alcohol Research Reference Files (CARRF), Center for Alcohol Studies at Rutgers University (see Appendix B).

Substance Abuse Attitude Survey

The recognition of a relationship between one's attitude and response to a situation prompted the development of the SAAS. Working with the joint forces of the National Institute of Alcohol Abuse and Alcoholism (NIAAA) and the National Institute of Drug Abuse (NIDA), Chappel et al. (1985) developed the SAAS in 1985 to measure attitudes toward substance use and abuse of those working in healthcare. The importance of attitudinal objectives in healthcare education is well documented (Boulton & Nosek, 2014; Copp, 2009; Cund, 2013), however there are limited instruments available to measure attitudes regarding substance use and abuse among nurses.

The development of the SAAS originally started with the career teachers and medical school physicians composing statements that were attitudinal in nature regarding patterns of substance abuse, patient characteristics of alcohol and drug use, categories of misused drugs, etiological beliefs, and treatment approaches (Chappel et al., 1985). The original instrument was a self-reporting survey that contained 153 items in a Likert-style format and was presented to 26 career teachers whose didactic subjects included drug and alcohol curricula. Sub-categories were developed through factor analysis and ineffectual or poorly worded items were deleted (Chappel et al., 1985). Resulting from the first factor analysis, 106 items were retained and the instrument was administered to 42 career teachers, including the original 26. A second factor analysis revealed logical clusters of variables, and the third factor analysis resulted in a 75-item survey (Chappel et al., 1985). This third version of the SAAS was administered to 50 healthcare professionals of differing backgrounds who were involved with the management of substance abusing patients. Ineffectual items were also removed. A fourth factor analysis was performed and the revised instrument was administered to 151 healthcare professionals from various geographical locations throughout the United States. All participants were professionals involved in the care of substance abuse patients. The fifth form of the instrument was sent to health professionals who did not specialize in substance abuse. The resulting five stable factors were identified: “1) permissiveness, 2) treatment intervention, 3) non-stereotypes, 4) treatment optimism, and 5) non-moralism” (Chappel et al., 1985, p. 50).

The final 50-item survey was administered to medical students enrolled in three medical schools over a 5-year period. A 90% response rate was returned at that time. Also during this period, the survey was disseminated through continuing medical education courses in four states. A 70-90% response rate was achieved. The final factor analysis was run on the two groups of

healthcare professionals, specifically those involved with substance abuse patients (criterion group) and those who were not (non-criterion group). The same five factors emerged, with an internal consistency of the factor structure over repeated administrations. Since its inception, the SAAS instrument has shown marked stability, and is now considered standardized. The original alpha reliability coefficients for the five factors were “1) permissiveness = 0.77, 2) treatment interventions = 0.63, 3) non-stereotypes = 0.81, 4) treatment optimism = 0.67, and 5) non-moralism = 0.67” (Chappel et al., 1985, p. 50).

In a more recent study, the attitudes of Nigerian medical students (N = 200) toward substance abusing patients were explored (James & Omoaregba, 2013). A modified 32-item SAAS was determined to have strong reliability, with a Cronbach alpha value of 0.76 (James & Omoaregba, 2013). The five subscales were also computed and two subscales were found to have low to moderate reliability (permissiveness, $\alpha = 0.4$ and treatment optimism, $\alpha = 0.32$) when compared to the original reliability assessed by Chappel et al. (1985). The remaining subscales demonstrated moderate to strong reliability: interventions ($\alpha = 0.5$), non-stereotypes ($\alpha = 0.74$), and non-moralism ($\alpha = 0.5$) (James & Omoaregba, 2013).

In a similar study, the attitudes of graduate students enrolled in a counseling program (N = 44) toward substance abusing patients were investigated (Warren, Cisler, Weatherford, & Zakaria, 2013). Outcomes of this study suggested that education in addiction disorders could improve the attitude of students toward patients with addictions. The Cronbach alpha reliability scores for the subscales were reported as 0.84 for permissiveness, 0.82 for non-stereotyping, 0.80 for non-moralism, 0.76 for treatment intervention, and 0.67 for treatment optimism (Warren et al., 2013).

Data Collection

Prior to the beginning of data collection, institutional review board approval was obtained from The University of Alabama as well as approval from the northeastern state nurses' association (see Appendices C and D). Data collection was obtained through a self-reporting online survey, administered through The University of Alabama Qualtrics application. The Qualtrics survey link was submitted to the director of the state nurses' association for distribution. From the state nurses' association email, an invitation was sent only to the registered nurse members of the NJSNA to participate in this research study. Licensed practical nurses (LPNs) were not sent an invitational email from the listserv. Potential participants were advised that the time of completion for the survey was approximately 20 minutes. The invitational email included a link to the Qualtrics survey where an informed consent was provided (see Appendix E). The consent described possible risks and benefits of the study, along with information for assistance if deemed necessary by the participants. Potential participants were assured that all responses were confidential, and that the researcher would not have access to any identifying information linking responses to the participants. Recipients of the email were informed that the study was being conducted for completion of a dissertation requirement at The University of Alabama. The researcher's name and contact information, as well as contact information for The University of Alabama Research Compliance Officer was provided. Potential participants were made aware of their option to withdraw from the study at any time without consequence. The participants' agreement to the terms delineated within the informed consent was elicited by the selection of 'I agree' prior to the start of the survey. Those who declined participation were thanked for their consideration of participation and the survey was closed to them. The time frame for data

collection was 4 weeks. At the 2-week mark, a reminder was sent through the SNA director's email to the registered nurse registered nurse members on the listserv.

Data Analysis

The Statistical Package for the Social Sciences (SPSS version 21) was used for data analysis. The statistical tests used for each research question are depicted below in Table 7.

Table 7

Research Questions and Statistical Tests

| Research Questions | Statistical Tests |
|---|--|
| RQ 1: Are there differences between registered nurses' attitudes toward substance use and abuse and the demographic information of age, gender, and ethnicity/race? 1a. differences between gender 1b. differences between age groups 1c. differences between ethnic/racial groups | Measures of central tendency, frequency distribution Independent <i>t</i> -test ANOVA ANOVA |
| RQ 2: Are there differences between registered nurses' attitudes toward substance use and abuse and years of experience as a nurse (i.e., 0 to 5 years, 6 to 15 years, 16 to 25 years, and greater than 25 years)? | Measures of central tendency Frequency distribution tables ANOVA |
| RQ 3: Are there differences between registered nurses' attitudes toward substance use and abuse and the highest degree of education obtained by a nurse (i.e., associate, baccalaureate, master's, and doctoral)? | Measures of central tendency, frequency distribution tables ANOVA |
| RQ 4: Are there differences between registered nurses' attitudes toward substance use and abuse and nursing specialty areas? | Measures of central tendency, frequency distribution tables ANOVA |

Summary

This study investigated registered nurses' attitudes toward substance use and abuse as a preliminary step in examining nurses' behavioral responses toward impaired colleagues. The

Theory of Planned Behavior (Ajzen, 1985) guided the study and provided the systematic structure to examine the attitudes of registered nurses toward substance use and abuse and to determine if differences existed between the variables of gender, age, ethnicity/race, nursing education, nursing experience, and specialty area. Attitude, the first construct of the TPB, is the starting point for understanding the resultant behavior or lack thereof, when practicing registered nurses are confronted with an impaired nursing colleague.

CHAPTER IV

RESULTS

The purpose of this research study was to determine if differences existed between the attitudes of registered nurses regarding substance use and abuse and the variables of age, gender, ethnicity/race, years of nursing experience, education, and nursing specialties.

Four research questions guided this study.

1. Are there differences between registered nurses' attitudes toward substance use and abuse and the demographic information of age, gender, and ethnicity/race?

2. Are there differences between registered nurses' attitudes toward substance use and abuse and years of experience as a nurse (i.e., 0 to 5 years, 6 to 15 years, 16 to 25 years, and greater than 25 years)?

3. Are there differences between registered nurses' attitudes toward substance use and abuse and the highest degree of education obtained by a nurse (i.e., associate, baccalaureate, master's, and doctoral)?

4. Are there differences between registered nurses' attitudes toward substance use and abuse and nursing specialty areas?

The study utilized quantitative methodology through an anonymous survey on the Qualtrics platform. The survey was sent out through the NJSNA listserv to all registered nurse members. Although the state nurses' association offers membership to all licensed nurses, only registered nurses who subscribed to the nursing association were invited to participate. Registered

nurses were identified within the NJSNA by state board issued license numbers upon application for membership. Only registered nurses were sent an invitation to participate in this study.

Sample Demographics

A total of 268 nurses took part in the survey. Of the 268 respondents who started the survey, only 173 completed it in its entirety, thus decreasing the actual sample size. The lack of completion of the survey decreased the sample size to slightly smaller than the required number of 180. The overwhelming majority of the respondents were female (94%). The most common response in the age category was noted in the greater than 51 years of age (65%). The largest ethnic/race response was selected in the Caucasian category (80%). More than 53% of participants reported having 25 years' experience. The majority reported their highest degree of education at the baccalaureate level (49%). Most respondents reported working in the acute care setting, with critical care being the most common specialty. Those who reported working in the non-acute care setting were largely represented in the "other" category.

Description of Variables

The variables used in this study included age, gender, ethnicity/race, years of nursing experience, highest degree of education, and nursing specialties. Nursing specialties were divided into two categories: acute care and non-acute care, with additional designations of specific nursing units. These findings are provided in Table 8.

Personal Demographics

The age of the nurse was queried, and grouped in the following categories: *less than 30 years* ($n = 20$), *31 to 40 years* ($n = 18$), *41 to 50 years* ($n = 23$), and *greater than 51 years* ($n = 112$). Gender was designated into three categories: *male* ($n = 10$), *female* ($n = 162$), and *I prefer not to answer* ($n = 1$). Male nurse respondents were significantly fewer than female nurses,

although this equates to the national percentage of females (91%) to males (9%) in nursing (United States Census Bureau, 2011). The respondents were requested to self-identify with the following ethnic/racial categories: *Caucasian* ($n = 137$), *African-American* ($n = 9$), *Hispanic* ($n = 3$), *Asian* ($n = 17$), and *Other* ($n = 7$).

Professional Demographics

Nurses were asked to identify their years of nursing experience, based on the following categories: *0 to 5 years*, *6 to 15 years*, *16 to 25 years*, and *greater than 25 years*. Most respondents were nurses with greater than 25 years of nursing experience ($n = 92$). Nurses were requested to indicate their highest degree of nursing education. The following categories were used to capture the level of education of the nurse: *associate* ($n = 25$), *baccalaureate* ($n = 84$), *masters* ($n = 44$), and *doctoral* ($n = 20$) degrees.

Due to the large number of nursing specialties available, this variable was grouped into two distinct sections: *acute care* and *non-acute care*. In the acute care designation, nursing areas were divided into five categories. The critical care group was further defined as intensive care, coronary care, emergency department, and post-anesthesia care unit. General nursing was described as telemetry, medical, and surgical areas. In-patient units were identified as operating room, dialysis, radiology, obstetrics, gynecology, and pediatrics. Outpatient departments were designated as same day surgery, dialysis, and outpatient infusion. Additionally, a fifth designation of other was included for those who felt their area of work did not match up with the described categories. The non-acute care group indicated those nursing roles that took place outside of a hospital-based setting and included sub-acute rehabilitation/long term care, home care, physician offices, and other, for those who did not identify with the aforementioned subcategories.

Table 8

Variables of the Study

| | Frequency | Percent |
|------------------------------------|-----------|---------|
| Gender | | |
| Male | 10 | 5.8 |
| Female | 162 | 93.6 |
| Other | 1 | .6 |
| Age | | |
| < 30 years | 20 | 11.6 |
| 31-40 years | 18 | 10.4 |
| 41-50 years | 23 | 13.3 |
| > 51 years | 112 | 64.7 |
| Ethnicity/Race | | |
| Caucasian | 137 | 79.2 |
| African-American | 9 | 5.2 |
| Hispanic | 3 | 1.7 |
| Asian | 17 | 9.8 |
| Other | 7 | 4.0 |
| Experience | | |
| < 5 years | 25 | 14.5 |
| 6-15 years | 32 | 18.5 |
| 16-25 years | 24 | 13.9 |
| > 25 years | 92 | 53.2 |
| Education | | |
| Associates | 25 | 14.5 |
| Baccalaureate | 84 | 48.6 |
| Masters | 44 | 25.4 |
| Doctoral | 20 | 11.6 |
| Acute-Non-Acute Specialties | | |
| Acute | 122 | 70.5 |
| Non-Acute | 51 | 29.5 |
| Acute Care Specialties | | |
| Critical Care | 41 | 23.7 |
| General Nursing | 34 | 19.7 |
| Inpatient Specialty | 15 | 8.7 |
| Out patient | 7 | 4.0 |
| Other | 25 | 14.5 |
| Non-Acute Care Specialties | | |
| Sub Acute Rehab | 3 | 1.7 |
| Homecare | 5 | 2.9 |
| Physician office | 5 | 2.9 |
| Other | 38 | 22.0 |

Substance Abuse Attitude Survey Results

The results of the Substance Abuse Attitude Survey (SAAS) are represented in percentages and numbers of responses for each question. These findings are provided in Appendix F.

Psychometrics of the Instrument

Cronbach alpha coefficients were calculated for each of the five subscales of the SAAS for this study. Findings were similar with those reported from previous research. Table 9 provides a comparison of Cronbach alpha coefficients from more recent studies (James & Omoaregba, 2013; Warren et al., 2013) with the current study.

Table 9

Comparison of Cronbach Alpha Coefficients

| SAAS Subscales | Chappel et al., 1985 | Warren et al., 2013 | James et al., 2013 | Gray 2017 |
|------------------------|----------------------|---------------------|--------------------|-----------|
| Permissiveness | 0.77 | 0.84 | 0.40 | 0.67 |
| Treatment Intervention | 0.63 | 0.76 | 0.50 | 0.66 |
| Nonstereotype | 0.81 | 0.82 | 0.74 | 0.77 |
| Treatment Optimism | 0.67 | 0.67 | 0.32 | 0.63 |
| Nonmoralism | 0.67 | 0.80 | 0.50 | 0.82 |

Hypothesis One

A one-way ANOVA was conducted to compare registered nurses' attitudes toward substance use and abuse on the variables of age, gender, and ethnicity.

For the variable of ethnicity/race, an ANOVA was run to compare the effect of ethnic groups identifying as Caucasian, African-American, Hispanic, Asian, and others with nurses' attitudes toward substance use and abuse. The Tukey post hoc test revealed significant differences

in the subscale categories of treatment intervention [$F(4, 168) = 3.63, p = .01$] and non-moralism [$F(4, 168) = 11.35, p = .00$]. In the treatment intervention subscale, those who identified in the Caucasian group (*mean difference* = -8.6, $p = .02$) and African American group (*mean difference* = -14.44, $p = .01$) scored lower than those who identified in the Asian group (*mean difference* = -8.6, $p = .02$). In the non-moralism subscale, those who identified in the Caucasian group (*mean difference* = 18.84, $p = .00$) scored the highest, with the African-American group (*mean difference* = -13.78, $p = .03$) scoring the next highest compared to those in the Asian group (*mean difference* = 18.84, $p = .00$).

A one-way ANOVA was conducted to compare registered nurses' attitudes toward substance use and abuse on the variables of age, gender, and ethnicity. The variable of age revealed no significant differences in the SAAS subscales of permissiveness [$F(3, 169) = 1.89, p = .13$], treatment intervention [$F(3, 169) = 1.10, p = .35$], non-stereotyping [$F(3, 169) = .64, p = .59$], treatment optimism [$F(3, 169) = 1.27, p = .29$], and non-moralism [$F(3, 169) = 1.37, p = .25$].

An independent t -test was conducted to determine if differences exist between nurses' attitudes toward substance abuse and gender. There were no significant differences between males and females in the SAAS subscales of permissiveness [$t(170) = 1.21, p = .94$], treatment intervention [$t(170) = -.47, p = .64$], non-stereotypes [$t(170) = -.16, p = .88$], and treatment optimism [$t(170) = -.44, p = .66$], or non-moralism [$t(170) = -.82, p = .42$]. A comparison of genders to the subscales of the SAAS instrument can be found in Table 10.

In the ethnicity/race variable, an ANOVA was run to compare the effects of ethnic groups identifying as Caucasian, African-American, Hispanic, Asian, and others with nurses' attitudes toward substance use and abuse. There were no significant differences in the SAAS subscales of

permissiveness [$F(4, 168) = 2.42, p = .05$], non-stereotype [$F(4, 168) = 1.86, p = .12$], and treatment optimism [$F(4, 168) = .59, p = .67$]. The variable of age also revealed no significant differences in the SAAS subscales of permissiveness [$F(3, 169) = 1.89, p = .13$], treatment intervention [$F(3, 169) = 1.10, p = .35$], non-stereotyping [$F(3, 169) = .64, p = .59$], treatment optimism [$F(3, 169) = 1.27, p = .29$], and non-moralism [$F(3, 169) = 1.37, p = .25$].

Table 10

Differences of Attitudes Toward Substance Abuse and Gender

| | <i>N</i> | <i>M</i> | <i>SD</i> | <i>F</i> | <i>df</i> | <i>p</i> |
|------------------------|----------|----------|-----------|----------|-----------|----------|
| Permissiveness | | | | .01 | 170 | .23 |
| Male | 10 | 42.70 | 8.94 | | | |
| Female | 162 | 39.05 | 9.28 | | | |
| Treatment Intervention | | | | 1.78 | 170 | .64 |
| Males | 10 | 52.00 | 8.78 | | | |
| Females | 162 | 54.20 | 11.26 | | | |
| Nonstereotypes | | | | 2.57 | 170 | .88 |
| Males | 10 | 46.30 | 6.48 | | | |
| Females | 162 | 46.80 | 9.99 | | | |
| Treatment Optimism | | | | 2.50 | 170 | .66 |
| Males | 10 | 41.20 | 7.15 | | | |
| Females | 162 | 42.86 | 11.80 | | | |
| Nonmoralism | | | | 4.98 | 170 | .03 |
| Males | 10 | 45.00 | 4.59 | | | |
| Females | 162 | 46.44 | 12.76 | | | |

Hypothesis Two

The years of nursing experience were investigated to determine if longevity in the nursing profession had an effect of nurses' attitudes toward substance use and abuse. Years of experience were grouped in this format: 0 to 5 years, 6 to 15 years, 16 to 25 years, and greater than 25 years. A one-way ANOVA was conducted to determine the effect of the years on attitudes. Significant differences were noted in the subscales of permissiveness [$F(3, 169) = 2.98, p = .03$] and treatment optimism [$F(3, 169) = 6.04, p < .001$]. In the permissiveness subscale, the 6-15 years of

experience scored higher than the greater than 25 years of experience. In the treatment optimism subscale, nurses with 16-25 years of experience scored higher than all the other groups (less than 5 years, 6-15 years, and greater than 25 years).

Due to a violation of Levene's homogeneity of variance in the non-stereotype subscale, a Welch ANOVA was conducted. As a result, no significant difference was noted in the non-stereotype subscale [*Welch statistic* = $F(3, 169) = .71, p = .59$].

Hypothesis Three

A one-way ANOVA was conducted to compare registered nurses' attitudes toward substance use and abuse and the highest educational degree obtained by the nurse. There were significant differences in non-moralism between the MSN prepared nurses [$F(3, 169) = 8.81, p < .001$] and BSN prepared [$F(3, 169) = -8.81, p < .001$] and also between the doctoral prepared [$F(3, 169) = 8.45, p .02$] and the BSN prepared [$F(3, 169) = -8.81, p < .001$].

There were no significant differences in the SAAS subscales of permissiveness [$F(3, 169) = .40, p = .76$], treatment intervention [$F(3, 169) = 1.03, p = .38$], and treatment optimism [$F(3, 169) = 2.64, p = .05$]. The Levene's homogeneity variance was violated for the subscale of non-stereotype; therefore, a Welch ANOVA was conducted [*Welch statistic* = $F(3, 169) = 1.73, p = .17$]. Results indicated that no significant differences in the educational levels of nurses and the subscale category of non-stereotype were identified.

Hypothesis Four

An analysis of the attitudes of nurses toward substance use and abuse within specific nursing specialties was obtained through a one-way ANOVA. Data were collected from nurses within acute care and non-acute care specialties.

Registered Nurses' Attitudes and Acute Care Specialties

A significant difference was identified in the subscale of non-moralism [$F(4, 117) = 3.92, p = .01$]. The Tukey post hoc test was conducted and revealed a significant difference between the medical-surgical nurses, and both the in-patient and other acute specialties on the non-moralism subscale. In the non-moralism subscale, the medical-surgical specialty scored lower than the in-patient specialty (*mean difference* = -10.47, $p = .04$). Those within the medical-surgical category also scored lower than those in the other acute care specialties category (*mean difference* = -10.50, $p = .01$).

The acute care specialties revealed no significant difference in the subscales of permissiveness [$F(4, 117) = .92, p = .94$], treatment intervention [$F(4, 117) = 2.15, p = .08$], non-stereotyping [$F(4, 117) = .83, p = .51$], and treatment optimism [$F(4, 117) = 2.43, p = .05$].

Registered Nurses' Attitudes and Non-acute Care Specialties

A significant difference was identified in the subscale categories of permissiveness [$F(3, 47) = 4.68, p = .01$], non-stereotype [$F(3, 47) = 3.52, p = .02$], and non-moralism [$F(3, 47) = 5.34, p < .00$]. Results of the Tukey post hoc test showed significant differences in permissiveness, with those working in physicians' offices (*mean difference* = -18.80, $p = .00$) scoring higher than the 'other' non-acute care specialties (*mean difference* = 11.59, $p = .02$). and higher than the homecare group (*mean difference* = 18.80, $p = .00$).

In the subscale of non-stereotype, a significant difference was noted as the 'other' category (*mean difference* = -12.10, $p = .01$) scored higher than the home care (*mean difference* = 12.10, $p = .01$). For the subscale of non-moralism, a significant difference was also identified with physician offices (*mean difference* = -20, $p = .02$) scoring higher than home care (*mean difference*

= 20.00, $p = .02$). ‘Other’ specialty groups (*mean difference* = -18.52, $p = .00$) also scored higher than home care, but lower than those in the physician office group.

The second specialty group of non-acute care settings revealed no significant difference in the SAAS subscales of treatment intervention [$F(3, 47) = .06, p = .98$] and treatment optimism [$F(3, 47) = .42, p = .74$].

Summary

This research study investigated nurses’ attitudes toward substance use and abuse within a northeastern state nurses’ association. Using an emailed questionnaire through a state nurses’ association, the variables of age, gender, ethnicity/race, years of nursing experience, education, and nursing specialties were examined. The major findings and implications of the study are highlighted in Chapter V.

CHAPTER V

DISCUSSION

Substance abuse has affected the nursing profession since the days of Florence Nightingale (Burton, 2014; Heise, 2003). Impaired nurses pose a threat to themselves and others, affirming the need to recognize and report suspected colleagues. The purpose of this descriptive quantitative study was to explore the attitudes of nurses toward substance use and abuse and determine if differences existed regarding age, gender, ethnicity, years of nursing experience, educational preparation in nursing, and nursing specialties. Using attitudes, the first component of the Theory of Planned Behavior (TPB), this study sought to examine nurses' attitudes toward substance use and abuse as the initial step in a three-step process of understanding nurses' behaviors when encountering Substance use disorder (SUD) in colleagues. This chapter discusses the major findings based on the study hypotheses. Implications for nursing practice and education along with study limitations and future research recommendations are also discussed.

Major Findings

A combined instrument of demographic information and the Substance Abuse Attitude Survey (SAAS) (Chappel et al., 1985) was used to ascertain the attitudes of registered nurses regarding substance use and misuse. The instrument explored the variables of age, gender, ethnicity/race, years of nursing experience, highest level of degree obtained, and the nursing specialty areas in relation to the five identified attitudinal subscales on the SAAS (Chappel et al., 1985): permissiveness, treatment intervention, nonstereotypes, treatment optimism, and nonmoralism. Appendix F depicts participants' responses to the individual questions of the SAAS.

Although no significance was identified in the age and gender groups respectively, the results of this study supported the national statistics of the mean nursing age of greater than 51 years of age and the predominantly female gender (New Jersey Collaborating Center for Nursing Board, 2014).

Significant differences were identified in ethnic/race groups within the subscales of treatment intervention and non-moralism. The Asian population of the study scored higher than Caucasian and African American groups, indicating a more positive attitude toward early identification (77%) and multidisciplinary treatment interventions (82%). Possible explanations of this include cultural attitudes of the Asian population regarding the disease process of substance use disorder (Abbott & Chase, 2008; Blume, 2016; NIDA, 2011). Caucasian and African Americans are more diverse from the perspective of specific cultural norms and beliefs, possibly impacting the attitudes of these groups.

Non-moralism also was significantly different among ethnic/racial groups. Caucasians scored lower than African American and Asian groups in this category. This suggests a more moralistic attitude toward substance users or abusers among Caucasians than other groups. African Americans also scored low, although higher than Caucasians. The Asian group scored the highest, adding support to the possible protective factor of culture that has been identified in past research studies (Gonzalez-Guarda et al., 2012). The presence of high moralistic attitudes in Caucasians may also be possibly attributed to stoic beliefs by some that substance use and abuse is self-inflicted (Lovi & Barr, 2009) and possibly a character flaw (Howard & Chung, 2000; Van Boekel et al., 2013).

Years of nursing experience revealed a significant difference between the 6-15 years and greater than 25 years of experience in the subscale of permissiveness. Nurses in the 6-15 years group held more accepting attitudes toward substance users and abusers than other groups. This

may be attributed to a greater familiarity with people with substance use concerns, as the rate of substance abuse is higher now than in prior years. Additionally, nurses in this group may have had personal experience with alcohol and/or drug experimentation that had not advanced to an addictive state.

Treatment optimism also demonstrated a significantly positive approach in the 16-25 years of experience group when compared to all the other groups. This suggests that nurses with longevity of experience have witnessed more successful outcomes of substance treatment and recovery than other nursing groups. As noted previously, this may reflect positive personal experiences with addiction recovery in family or friends. Nurses with greater than 25 years of experience were the next most optimistic in early recognition and successful treatment, supporting the implication that longevity in nursing may play a role in attitudinal postures toward substance use and abuse. These results correspond with recent research findings that support the belief that nurses with limited experience caring for those with SUD may not consistently provide the most current research-based care (Robertson et al., 2015), and those with many decades of experience may have an increase in comfort in confronting and reporting a colleague suspected of impairment (Bettinardi-Angres & Bologeorges, 2011).

Currently in the United States, there are three educational routes to becoming a registered nurse. These routes include the diploma in nursing, associate degree (AD), and the baccalaureate degree (BSN). It has been noted that diploma education in nursing has consistently declined to less than 3% of all nursing graduates in 2008 (LaRocco, 2010). As a result of this decline, diploma-prepared nurses were not included in the study. Although the National Council of State Boards of Nursing (NCSBN) creates and administers the National Council Licensure Examination (NCLEX), the regulation of nursing education, eligibility to take the examination, and nursing

practices are the sole responsibilities of the boards of nursing of the individual states (LaRocco, 2010). This study investigated different levels of nursing education to determine if the various levels had an impact on the attitudes of nurses toward substance use and abuse. The highest degree of nursing education also saw significant differences between groups. The masters' prepared nurses had the most non-moralistic attitudes toward substance users and abusers, although doctoral prepared nurses followed close behind in this subscale. This strongly suggests that the higher levels of education affect attitudes in a positive direction. Increased education in the biopsychosocial aspects of substance use and addiction supports the attitude belief of the TPB (Happell et al., 2002; Robertson et al., 2015; Trendel & Werle, 2016). An incidental finding of this study revealed the large number of baccalaureate prepared nurses within the state of New Jersey. This correlates to the increasing numbers of hospitals attaining Magnet status, thus requiring a baccalaureate degree as entry level. Those already working in acute care facilities with an associates' degree have been challenged with obtaining a bachelor's degree within a specified amount of time, or risk losing their jobs.

Significant differences were also identified in the acute care specialty group in the non-moralism subscale. Nurses working in 'in-patient' and 'other' specialty areas within the hospital setting were found to have a more positive, non-moralistic approach toward substance abusers than medical-surgical nurses. Past studies have revealed that registered nurses frequently regard patients with substance abuse issues as problem patients (Chu & Galang, 2015; Lovi & Barr, 2009). A possible explanation of the difference in attitudes between specialty areas may be related to the amount of time and acuity of patient care required. In-patient and 'other' areas have limited time with patients, and are generally providing one aspect of care, whereas medical-surgical nurses are providing complete patient care not only to the patient with SUD but also the rest of the

nurse's assignment. Typical nurse-patient ratios on a medical-surgical unit range from 1:5 or 1:6 (Tevington, 2011). Additionally, medical-surgical nurses are responsible for 24-hour patient care, in contrast to the limited amount of time necessary to attend to the needs of the patient with SUD on the 'in-patient' or 'other' specialty care units.

The non-acute specialty group based outside of a hospital designation also had significant differences in the permissiveness, non-stereotype, and non-moralism subscales. A common thread noted throughout the non-acute specialty areas was the inflexibility of attitudes in the homecare group in three of the subscales where differences were observed. From the permissiveness subscale, physician office nurses held more accepting attitudes toward substance users and abusers than the homecare and 'other' specialty areas. The limited contact with patients with SUD may also result in a more positive attitude of the nurses when compared to the homecare group. Although the 'other' specialty area lacks definition of time and level of care, homecare requires total patient care on a one-to-one basis. The total involvement in patient care offers little reprieve in an 8- to 12-hour shift. Due to the complexity of the disease of SUD, extended periods of time with these patients may impact the attitudes of nurses, similar to the medical-surgical nurses within the acute specialty group.

Homecare nurses also held more stereotypical attitudes toward patients with substance use and abuse than the 'other' counterpart group. The presence of this attitude may be attributed to past experiences with substance abusers, knowledge deficit of current treatment modalities in addiction medicine, and the isolation from other nurses that is inherent in this type of assignment. Generally, homecare nurses are caring for patients with multiple comorbidities. There may be instances when substance abuse may not be part of the patient diagnosis, but of the family member(s) who also have significant interactions with the patient and the nurse on a regular basis.

The subscale of non-moralism also gleaned a significantly negative difference in the attitudes of homecare nurses. Homecare nurses expressed more moralistic attitudes than nurses working in physician office nurses and ‘other’ specialty groups. The negative attitudes of homecare nurses are not fully understood, and more research is needed to investigate this result. Homecare nurses primarily work independently from other nurses and healthcare providers, and this professional isolation coupled with long shifts may have an influence on the attitudes of nurses in this work situation.

Appendix F depicts participants’ responses to the individual questions of the SAAS. An additional finding of this study was the nurses’ support (40%) of marijuana legalization, with over 20% of respondents undecided. This accepting attitude may have been influenced by the recent legislation regarding medical marijuana in the United States. Noting that the majority of respondents were more than 51 years of age, this may also reflect past cultural inclinations of marijuana use acceptance among the baby boomer era (birth years of 1946-1964) (Bump, 2014). Moreover, the majority of respondents (70%) supported lifelong abstinence as a necessary treatment for substance abuse. Although this reinforces the established treatment philosophies of both Narcotics and Alcoholics Anonymous, it also bears the consideration as to whether marijuana is considered an acceptable substance to use, similar to alcohol. This study revealed that nurses (65%) did not agree that tobacco smoking was a precursor to marijuana, which in turn led to the use of hard drugs. Although beliefs related to marijuana use have relaxed, according to this study, nurses (66%) have continued to recognize any heroin use as a direct path to addiction. This finding was incongruent with statistics reported in the National Survey on Drug Use and Health (2014) that indicated people who are addicted to marijuana and alcohol have an increased risk of heroin addiction. Last, results of this study revealed that nurses (64%) did not view patients with SUD as

difficult patients. This finding was also inconsistent with prior studies (Bartlett, 2013; Kalebka et al., 2013), and more research is needed in this area.

Behavioral beliefs and attitudes based on the TPB were supported by the recognition that drug addiction and alcoholism were treatable diseases by the majority of respondents (93%). The attitudes revealed in this study demonstrated differences in all five subscales of the SAAS, as well as the ethnicity/race variable of the demographic profile. Years of experience and levels of education also had observable differences. Recognizing attitudinal differences has been the foundational step of the TPB, and is necessary in developing an understanding of the future steps of subjective and perceived behavioral norms.

A total of 268 nurses took part in the survey. Of the 268 respondents who started the survey, only 173 completed it in its entirety, thus decreasing the actual sample size. All the respondents who started the survey answered the questions in the personal and professional demographic section. Unanswered questions were noted on the SAAS portion of the survey. Possible explanations for this may include a sense of discomfort felt by the respondents as the questions contained on the SAAS pertained to attitudes toward substance use and abuse. The length of the survey may also have had a negative impact on completion rate, particularly if the respondents were completing the survey during work times. A glitch of the Qualtrics survey platform may have also contributed to the lack of completion of the survey. After 2 weeks of inactivity, the survey was closed to the participant, thus prohibiting the respondent from completing the survey.

An interesting result of the study revealed that the majority of the respondents were women older than 51 years of age. Although this may be partially attributed to the financial membership restriction of the state nurses' association sample, there are indications that the return

of a nursing shortage is imminent (AACN, 2013). Changes in the economy, the decline of qualified nurse educators, and the retirement of older nurses are all anticipated to contribute to a nursing shortage in the near future.

Limitations of the Study

As with any research study, limitations exist. A major limitation of this study was the age of the instrument, as the SAAS was developed over 30 years ago. The social environment surrounding substance use and abuse has evolved significantly over the past 3 decades. In addition, recognition of the characteristics of substance use disorder and the development of diagnostic criteria have emerged since the development of the SAAS. Therefore, the need for a more current instrument to measure attitudes toward substance use and abuse, particularly one specific to nurses and other healthcare providers, is essential.

Another limitation was the small sample size and lack of diversity among respondents. This may be attributed to the use of a state nurses' association that required a substantial membership fee of \$260.00 a year, thus financially restricting some nurses from joining. These limitations may be minimized in future studies by expanding the study to a larger cross-section of the country, thus avoiding organizations that require fees for membership.

Implications for Nursing Practice and Education

This study examined the difference between nurses' attitudes toward substance use and abuse as the first step in exploring barriers to reporting impaired colleagues. Due to inconsistencies between nurses' attitudes toward substance use and abuse and reporting practices identified in earlier studies (Cares et al., 2015; Thomas & Siela, 2011; van Boekel et al., 2013; Wright et al., 2011), educational initiatives are needed. In particular, identification of attitudes toward substance use, abuse, and addiction need to be explored, both from a personal and

professional perspective. Self-studies for working nurses are warranted to encourage self-realization and rationales on how to channel attitudes into positive actions. This follows the trajectory of the TPB, in that acknowledging attitudes, both personal and professional, lays the foundation for appropriate behavioral responses in the event of suspecting impairment in a colleague. Nursing curricula regarding the legal and ethical responsibilities need to be re-evaluated, particularly in light of the disturbing evidence that suggests many nurses do not report impaired colleagues even when they suspect or identify them (Bettinardi-Angres & Bologeorges, 2011). This process starts with changing the attitudes of nurses from one of negative, moralistic viewpoints to acceptance of SUD as a disease process, and employing evidence-based treatment plans. Education in attitude awareness is warranted not only at the pre-licensure level but also by continuing education for those already in practice.

Recommendations for Further Research

Although substance use and abuse have recently gained attention in the professional and public arenas, additional research is needed in SUD among nurses' and colleagues' responses when impairment is suspected. The development and testing of a new instrument to determine attitudes toward substance use and abuse is needed, as the Substance Abuse Attitude Survey was developed in 1985. The classification of substance use disorder has evolved since then and newer measures are needed to capture the necessary information identified with these societal changes. Instrument development regarding attitudes and behavioral responses toward SUD, specific to nurses and other healthcare providers, is also warranted.

Educational research regarding the amount of SUD curricula is also necessary to guide further academic endeavors of pre-licensure students and continuing education initiatives. With the rapid increase of SUD in nursing and the general population, more time needs to be allotted to

the recognition, reporting process, and the psychosocial implications of both the nurse and the suspected impaired nurse. In addition, qualitative studies addressing both impaired practitioners and suspecting colleagues would provide additional knowledge regarding attitudes and subsequent behaviors.

Replication of this study with changes in the population, personal, and professional demographics may improve the generalizability of these results to the nursing culture. Additionally, redesigning the age section of the instrument to reflect the identified generations of X, Y, and Millennials along with an expanded range of ethnicity groups may aid in capturing the attitudes of registered nurses from a more diverse population.

Research is also needed on the efficacy of current educational offerings for nurses in SUD and nursing attitudes, along with recognition and reporting processes to ascertain gaps in the nursing curriculum on substance use disorder. Incorporating the Theory of Planned Behavior constructs into nursing education on SUD may offer a structured approach in treating the disease process from a psychosocial perspective.

Lastly, changes in the designation of the specialty areas may offer a better insight into the identification of attitudes. Many respondents of this study identified in the 'other' category, both in the acute and non-acute specialties. Having more specified nursing areas may better identify attitudes among nurses, providing a better foundation for future studies in the TPB and SUD.

Conclusions

Patient safety is considered a top priority in the nursing profession and the potential deleterious effect of care rendered by an impaired nurse can be life threatening. Behavioral beliefs about substance use and abuse impact attitudes toward reporting suspected impairment in colleagues. It is imperative that impairment in nurses is quickly identified, and treatment is

offered. The effects of SUD go far beyond the impaired nurse, to that of the organization and profession as a whole. Employing the first component of the TPB, this study explored nurses' attitudes toward substance use and abuse, and attitudinal patterns were examined. This is the first step in understanding components that affect the behavior of nurses when impairment in nursing colleagues is suspected.

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APPENDIX A
SURVEY QUESTIONS FOR STUDY PARTICIPANTS

Survey Questions

| | | | | | | |
|---|---|------------------------------------|--|---|--|----------------------------------|
| | Gender | Male | Female | I do not wish to answer | | |
| | Age | below 30 years of age | 31-40 years of age | 41-50 years of age | over 51 years of age | |
| | Ethnicity/Race | Caucasian | African-American | Hispanic | Asian/Other | |
| | Years of experience as an educator | Less than 5 years | 6 – 15 years | 16 – 25 years | Greater than 25 years | |
| | Highest degree of education | Associate's degree | Baccalaureate degree | Master's degree | | Doctoral degree |
| | I currently work in an acute care setting | Yes | | no | | |
| | If answers yes to above question, select your specialty in the acute care setting. | Critical Care (ICU, CCU, ED, PACU) | General Nursing (Telemetry, medical, surgical, | In Patient Specialties (Operating Room, Dialysis, Radiology, Obstetrics & Gynecology, Pediatrics) | Outpatient Departments (Same Day Surgery, Dialysis, Outpatient Infusion, | Other acute care specialties |
| | If answers no to the above question, select your specialty outside of acute care setting. | Sub-acute Rehabilitation | Long Term Care/Assisted Living | Home care | Physician Office | Other non-acute care specialties |
| 1 | Alcohol is an effective social relaxant. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 2 | Marijuana should be legalized. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 3 | Any drug can be safely used by a person who is mentally healthy. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |

| | | | | | | |
|----|--|---------------------|------------|-------------|---------|------------------|
| 4 | Almost anyone would turn to drugs if their problems were great enough. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 5 | Alcohol is a food, not a drug. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 6 | Physicians are an important source of drugs for most users. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 7 | Marijuana use leads to mental illness. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 8 | Heroin is so addicting that no one can really recover once he/she becomes an addict. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 9 | Smoking leads to marijuana use, which, in turn, leads to hard drugs. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 10 | Clergymen should not drink in public. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 11 | Alcoholism is associated with a weak will. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 12 | All heroin leads to addiction. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 13 | Daily use of one marijuana cigarette is not necessarily harmful. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 14 | Physicians should not smoke tobacco in front of their patients. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 15 | People who use marijuana usually do not respect authority. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 16 | The laws governing the use of marijuana and heroin should be the same. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |

| | | | | | | |
|----|--|---------------------|------------|-------------|---------|------------------|
| 17 | Angry confrontation is necessary in the treatment of alcoholics or drug addicts. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 18 | Using any hard drugs shortens one's life span. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 19 | Tobacco should not be smoked in the rooms where non-smokers are present. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 20 | Weekend users of drugs will progress to drug abuse. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 21 | Tobacco smoking should be allowed in high schools. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 22 | Anybody who is clean-shaven with short hair probably doesn't use illegal drugs. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 23 | Family involvement is a very important part of the treatment of alcoholism or drug addiction. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 24 | Alcohol is so dangerous that it could destroy the youth of our country if it wasn't controlled by law. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 25 | A physician who has been addicted to narcotics should not be allowed to practice medicine again. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |

| | | | | | | |
|----|---|---------------------|------------|-------------|---------|------------------|
| 26 | Recreational drug use precedes drug abuse. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 27 | Lifelong abstinence is a necessary goal in the treatment of alcoholism. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 28 | Drug addiction is a treatable illness. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 29 | Alcoholism is a treatable illness. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 30 | Street pushers are the initial source of drugs for young people. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 31 | Personal use of drugs should be legal in the confines of one's own home. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 32 | People who dress in hippie-style clothing usually use psychedelic drugs. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 33 | A hospital is the best place to treat an alcoholic or drug addict. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 34 | Group therapy is very important in the treatment of alcoholism or drug misuse. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 35 | Most alcohol and drug-dependent persons are unpleasant to work with as patients | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |

| | | | | | | |
|----|--|---------------------|------------|-------------|---------|------------------|
| 36 | It can be normal for a teenager to experiment with drugs. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 37 | Once a person becomes drug-free through treatment he can never become a social user. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 38 | Paraprofessional counselors can provide effective treatment for alcohol and drug misusers. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 39 | Long-term out-patient treatment is necessary for the treatment of drug addiction. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 40 | An alcohol or drug-dependent person who has relapsed several times probably cannot be treated. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 41 | Marijuana use among teenagers can be healthy experimentation. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 42 | Urine drug screening can be an important part of for the treatment of drug abuse treatment. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 43 | Physicians who diagnose alcoholism early improve the chance of treatment success. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |

| | | | | | | |
|----|--|---------------------|------------|-------------|---------|------------------|
| 44 | Alcohol and drug abusers should only be treated by specialists in that field. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 45 | The best way for a physician to treat alcohol or drug dependent patients is to refer them to a good treatment program. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 46 | Persons convicted of sale of illicit drugs should not be eligible for parole. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 47 | Chronic alcoholics who refuse treatment should be legally committed to long-term treatment. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 48 | An alcohol or drug dependent person cannot be helped until he/she has hit 'rock bottom'. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 49 | Once an alcohol or drug-dependent patient is abstinent and off all medication, no further contact with a physician is necessary. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |
| 50 | Parents should teach their children how to use alcohol. | 1-Strongly disagree | 2-Disagree | 3-Uncertain | 4-Agree | 5-Strongly Agree |

(Chappel et al., 1985)

APPENDIX B

PERMISSION TO USE THE SUBSTANCE ABUSE ATTITUDE SURVEY

From: [jsad@rci.rutgers.edu]
Sent: 6/15/2016 5:01 PM

To: megray5@crimson.ua.edu
Cc: info@copyright.com
Subject: Permission to use the Substance Abuse Attitude Survey – Journal of Studies on Alcohol

Hi Peggy,

Sorry that no one has gotten back. The Substance Abuse Attitude Survey (SAAS) can be found in this journal article, which we own the rights to:

The substance abuse attitude survey: An instrument for measuring attitudes.
Journal of Studies on Alcohol, 46(1), 48–52 (1985).

J N Chappel T L Veach R S Krug
DOI: https://urldefense.proofpoint.com/v2/url?u=http-3A__dx.doi.org_10.15288_jsa.1985.46.48&d=CwIDAw&c=KWU0n0AYV-PQlv5EyAO4mg&r=T0VfAC_Dzf3xQ2FXZZPXW3amdWNwT0u_Nq7hvX6_U-s&m=G34Qybshgoy_Wxtw054FcezDW-Uj06wsOJ4zzzqqUxk&s=qHu6NbCEm6p8RnIglrvLOFZyvuVV3331VwBjmctIvM8&e=

You should be able to access the full text through your institution's subscription. To obtain the rights to use it in your research, please contact Copyright Clearance Center (cc'd on this email). You have permission to modify it as well. Please just include the full citation to the original.

Please let me know if you have any questions.

Best,

Paul

Paul Candon
Managing Editor
848-445-3510

APPENDIX C
IRB APPROVAL

January 13, 2017

Margaret Gray, MSN, M.Ed., APN
Department of ELPTS

College of Education

The University of Alabama Box
870302

Re: IRB#EX-17-CM-003 "Registered Nurses' Attitudes toward Suspected or Impaired Colleagues in a Northeast State Nurses Association"

Dear Ms. Gray:

The University of Alabama Institutional Review Board has granted approval for your proposed research. Your protocol has been given exempt approval according to 45 CFR part 46.101(b)(2) as outlined below:

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless.

(i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects, and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Your application will expire on January 12, 2018. If your research will continue beyond this date, complete the relevant portions of Continuing Review and Closure Form. If you wish to modify the application, complete the Modification of an Approved Protocol Form. When the study closes, complete the appropriate portions of FORM: Continuing Review and Closure.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number. Good luck with your research.

Sincerely,

Director & Research Compliance Officer

Office of Research Committee

APPENDIX D

CORRESPONDENCE WITH THE NEW JERSEY STATE NURSES ASSOCIATION

Peggy Gray <megray5@crimson.ua.edu> 12/16/16

to jschmidt159

Good morning Ms. Schmidt,

Attached please find my IRB Proposal submitted to the University of Alabama. I highlighted my responses to the questions for your ease of reading. Also, I have attached my informed consent and combined questionnaire. I am using the Substance Abuse Attitude Survey (SAAS) and a demographic survey. The appropriate permission to use the SAAS has been obtained.

Thank you for your assistance in this. I look forward to hearing from you.

Best regards,

Margaret (Peggy) Gray

Doctoral Candidate

University of Alabama

Instructional Leadership in Technology for Nursing Education

Judith Schmidt <judy@njsna.org>

12/21/16

APPENDIX E
INFORMED CONSENT

STUDY TITLE: Registered Nurses' Attitude Toward Substance use and Abuse in a Northeastern State Nurses Association.

You are being asked to participate in a research study that is being conducted by Margaret (Peggy) Gray, a doctoral candidate at the University of Alabama.

Purpose of the study: The purpose of this research study is to explore registered nurses' attitudes of impaired nursing colleagues and determine if differences exist from the perspectives of age, gender, ethnicity, experience, education, and nursing specialty.

What will be done? This study will involve the completion of an online questionnaire that asks questions about your attitude toward substance use and/or abuse. This questionnaire should take approximately 15-20 minutes to complete in one online session.

Participation in this study is completely voluntary and you are able to withdraw from the study at any time for any reason should you wish to do so.

Eligibility to participate: Registered nurses who are members of the northeastern state nurses' association who possess an unencumbered Registered Professional Nurse license and are not currently enrolled in a disciplinary or alternative to discipline program.

Risks or discomforts: No more than minimal risks are anticipated from taking part in this study. However, one potential risk to participants is possible stress and emotions that can be evoked when answering questions regarding experiences with substance use and/or abuse. Should you experience any stress or negative emotions as a result of your participation in the study and wish to speak to someone regarding your experience, resources will be provided at the end of the survey.

Benefits of this study: There is no direct benefit to you for participating in this study. However, you will be contributing to the knowledge and understanding of nurses' attitudes towards impairment among nursing colleagues.

Confidentiality: Your responses will be kept completely anonymous. I will NOT know your IP address when you respond to the Internet survey. There will not be any codes used to link the subject to their responses. All information you provide will be treated anonymously and will be maintained to the fullest degree permitted by the technology used. Completed questionnaires will be protected in a secure server cloud until the completion of the project and then will be destroyed. The study is expected to last approximately six months. After study completion, all data collected will be deleted.

How the findings will be used: The results from this study will be presented at research conferences and possibly published in a research journal. However, data will be in aggregate (group) form only.

Contact information Should you have any concerns or questions about this research study, please contact Peggy Gray at megray5@crimson.ua.edu or Dr. Vivian Wright (University of Alabama, dissertation chair) at vwright@ua.edu.

If you have any questions regarding your rights as a person taking part in a research study, make suggestions or file complaints and concerns, you may call Ms. Tanta Myles, the University of Alabama Research Compliance Officer at (205)-348-8461 or toll-free at 1-877-820-3066. You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach Website at http://osp.ua.edu/site/PRCO_Welcome.html. You may email us at participantoutreach@bama.ua.edu.

Additional assistance may be found at the New Jersey Department of Human Services, Division of Mental Health and Addiction Services Designated Screening Services through the following website: http://www.state.nj.us/humanservices/dmhas/home/hotlines/MH_Screening_Centers.pdf

By beginning this survey, you acknowledge that you have read this information and agree to participate in this research, with the knowledge that you are free to withdraw your participation at any time without penalty.

If you have read the statements above, and will consent to participate in the study, click on the "I Agree" button and the arrow button to begin the survey.

I agree

I disagree

APPENDIX F
SUBSTANCE ABUSE ATTITUDE SURVEY RESULTS

Q10 - Marijuana should be legalized.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 9.84% | 17 |
| 2 | Disagree | 24.04% | 41 |
| 3 | Uncertain | 23.50% | 40 |
| 4 | Agree | 28.42% | 50 |
| 5 | Strongly Agree | 14.21% | 25 |
| | Total | 100% | 173 |

Q11 - Marijuana use among teenagers can be healthy experimentation.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 27.87% | 48 |
| 2 | Disagree | 45.90% | 80 |
| 3 | Uncertain | 15.85% | 27 |
| 4 | Agree | 9.84% | 17 |
| 5 | Strongly Agree | 0.55% | 1 |
| | Total | 100% | 173 |

Q12 - Personal use of drugs should be legal in the confines of one's own home.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 25.14% | 43 |
| 2 | Disagree | 42.08% | 74 |
| 3 | Uncertain | 20.22% | 35 |
| 4 | Agree | 11.48% | 19 |
| 5 | Strongly Agree | 1.09% | 2 |
| | Total | 100% | 173 |

Q13 - Daily use of one marijuana cigarette is not necessarily harmful.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 24.04% | 42 |
| 2 | Disagree | 31.69% | 55 |
| 3 | Uncertain | 22.95% | 39 |
| 4 | Agree | 19.67% | 34 |
| 5 | Strongly Agree | 1.64% | 3 |
| | Total | 100% | |
| | | | 173 |

Q14 - Tobacco smoking should be allowed in high schools.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 81.32% | 141 |
| 2 | Disagree | 15.38% | 26 |
| 3 | Uncertain | 2.20% | 4 |
| 4 | Agree | 0.55% | 1 |
| 5 | Strongly Agree | 0.55% | 1 |
| | Total | 100% | |
| | | | 173 |

Q15 - It can be normal for a teenager to experiment with drugs.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 21.98% | 38 |
| 2 | Disagree | 26.92% | 47 |
| 3 | Uncertain | 13.19% | 22 |
| 4 | Agree | 36.26% | 63 |
| 5 | Strongly Agree | 1.65% | 3 |
| | Total | 100% | |
| | | | 173 |

Q16 - Persons convicted of sale of illicit drugs should not be eligible for parole.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 16.48% | 29 |
| 2 | Disagree | 44.51% | 77 |
| 3 | Uncertain | 18.13% | 31 |
| 4 | Agree | 16.48% | 28 |
| 5 | Strongly Agree | 4.40% | 8 |
| | Total | 100% | |
| | | | 173 |

Q17 - Lifelong abstinence is a necessary goal in the treatment of alcoholism.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 4.95% | 9 |
| 2 | Disagree | 11.54% | 20 |
| 3 | Uncertain | 13.19% | 23 |
| 4 | Agree | 39.01% | 67 |
| 5 | Strongly Agree | 31.32% | 54 |
| | Total | 100% | |
| | | | 173 |

Q18 - Once a person becomes drug-free through treatment he can never become a social user.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 1.67% | 3 |
| 2 | Disagree | 7.22% | 12 |
| 3 | Uncertain | 13.33% | 23 |
| 4 | Agree | 40.00% | 70 |
| 5 | Strongly Agree | 37.78% | 65 |
| | Total | 100% | |
| | | | 173 |

Q19 - Parents should teach their children how to use alcohol.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 9.50% | 16 |
| 2 | Disagree | 17.32% | 30 |
| 3 | Uncertain | 11.17% | 19 |
| 4 | Agree | 41.34% | 72 |
| 5 | Strongly Agree | 20.67% | 36 |
| | Total | 100% | |
| | | | 173 |

Q20 - Physicians who diagnose alcoholism early improve the chance of treatment success.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 1.12% | 2 |
| 2 | Disagree | 8.94% | 15 |
| 3 | Uncertain | 12.29% | 21 |
| 4 | Agree | 48.04% | 84 |
| 5 | Strongly Agree | 29.61% | 51 |
| | Total | 100% | |
| | | | 173 |

Q21 - Family involvement is a very important part of the treatment of alcoholism or drug addiction.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 0.00% | 0 |
| 2 | Disagree | 0.56% | 1 |
| 3 | Uncertain | 1.12% | 2 |
| 4 | Agree | 31.28% | 54 |
| 5 | Strongly Agree | 67.04% | 116 |
| | Total | 100% | |
| | | | 173 |

Q22 - The best way for a physician to treat alcohol or drug dependent patients is to refer them to a good treatment program.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 0.00% | 0 |
| 2 | Disagree | 3.95% | 7 |
| 3 | Uncertain | 14.12% | 24 |
| 4 | Agree | 52.54% | 91 |
| 5 | Strongly Agree | 29.38% | 51 |
| | Total | 100% | |
| | | | 173 |

Q23 - Group therapy is very important in the treatment of alcoholism or drug misuse.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 0.00% | 0 |
| 2 | Disagree | 1.12% | 2 |
| 3 | Uncertain | 17.42% | 30 |
| 4 | Agree | 47.75% | 83 |
| 5 | Strongly Agree | 33.71% | 58 |
| | Total | 100% | |
| | | | 173 |

Q24 - Urine drug screening can be an important part of for the treatment of drug abuse treatment.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 0.00% | 0 |
| 2 | Disagree | 2.81% | 5 |
| 3 | Uncertain | 9.55% | 16 |
| 4 | Agree | 50.00% | 87 |
| 5 | Strongly Agree | 37.64% | 65 |
| | Total | 100% | |
| | | | 173 |

Q25 - Long-term outpatient treatment is necessary for the treatment of drug addiction.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 0.00% | 0 |
| 2 | Disagree | 2.81% | 5 |
| 3 | Uncertain | 12.92% | 22 |
| 4 | Agree | 43.82% | 76 |
| 5 | Strongly Agree | 40.45% | 70 |
| | Total | 100% | 0 |
| | | | 173 |

Q26 - Once an alcohol or drug-dependent patient is abstinent and off all medication, no further contact with a physician is necessary.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 55.06% | 95 |
| 2 | Disagree | 42.13% | 73 |
| 3 | Uncertain | 1.69% | 3 |
| 4 | Agree | 1.12% | 2 |
| 5 | Strongly Agree | 0.00% | 0 |
| | Total | 100% | 0 |
| | | | 173 |

Q27 - Paraprofessional counselors can provide effective treatment for alcohol and drug misusers.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 0.56% | 1 |
| 2 | Disagree | 3.39% | 6 |
| 3 | Uncertain | 19.21% | 33 |
| 4 | Agree | 55.93% | 97 |
| 5 | Strongly Agree | 20.90% | 36 |
| | Total | 100% | 0 |
| | | | 173 |

Q28 - People who use marijuana usually do not respect authority.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 22.47% | 39 |
| 2 | Disagree | 55.06% | 95 |
| 3 | Uncertain | 14.04% | 24 |
| 4 | Agree | 7.30% | 13 |
| 5 | Strongly Agree | 1.12% | 2 |
| | Total | 100% | |
| | | | 173 |

Q29 - Smoking leads to marijuana use, which, in turn, leads to hard drugs.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 23.73% | 42 |
| 2 | Disagree | 41.81% | 72 |
| 3 | Uncertain | 18.08% | 31 |
| 4 | Agree | 11.86% | 20 |
| 5 | Strongly Agree | 4.52% | 8 |
| | Total | 100% | |
| | | | 173 |

Q30 - Anybody who is clean-shaven with short hair probably doesn't use illegal drugs.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 66.67% | 115 |
| 2 | Disagree | 31.07% | 54 |
| 3 | Uncertain | 1.13% | 2 |
| 4 | Agree | 0.00% | 0 |
| 5 | Strongly Agree | 1.13% | 2 |
| | Total | 100% | |
| | | | 173 |

Q31 - People who dress in hippie-style clothing usually use psychedelic drugs.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 56.50% | 98 |
| 2 | Disagree | 35.59% | 61 |
| 3 | Uncertain | 3.95% | 7 |
| 4 | Agree | 3.39% | 6 |
| 5 | Strongly Agree | 0.56% | 1 |
| | Total | 100% | |
| | | | 173 |

Q32 - Marijuana use leads to mental illness.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 20.90% | 36 |
| 2 | Disagree | 46.89% | 81 |
| 3 | Uncertain | 20.90% | 36 |
| 4 | Agree | 10.17% | 18 |
| 5 | Strongly Agree | 1.13% | 2 |
| | Total | 100% | |
| | | | 173 |

Q33 - Heroin is so addicting that no one can really recover once he/she becomes an addict.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 12.43% | 22 |
| 2 | Disagree | 50.85% | 87 |
| 3 | Uncertain | 18.08% | 31 |
| 4 | Agree | 17.51% | 30 |
| 5 | Strongly Agree | 1.13% | 2 |
| | Total | 100% | |
| | | | 173 |

Q34 - All heroin leads to addiction.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 3.95% | 7 |
| 2 | Disagree | 16.38% | 28 |
| 3 | Uncertain | 14.12% | 24 |
| 4 | Agree | 45.20% | 78 |
| 5 | Strongly Agree | 20.34% | 36 |
| | Total | 100% | |
| | | | 173 |

Q35 - Weekend users of drugs will progress to drug abuse.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 1.69% | 3 |
| 2 | Disagree | 20.90% | 36 |
| 3 | Uncertain | 29.94% | 52 |
| 4 | Agree | 36.16% | 62 |
| 5 | Strongly Agree | 11.30% | 20 |
| | Total | 100% | |
| | | | 173 |

Q36 - A hospital is the best place to treat an alcoholic or drug addict.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 15.25% | 26 |
| 2 | Disagree | 57.63% | 100 |
| 3 | Uncertain | 20.34% | 35 |
| 4 | Agree | 6.21% | 11 |
| 5 | Strongly Agree | 0.56% | 1 |
| | Total | 100% | |
| | | | 173 |

Q37 - Recreational drug use precedes drug abuse.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 0.56% | 1 |
| 2 | Disagree | 23.73% | 41 |
| 3 | Uncertain | 15.82% | 27 |
| 4 | Agree | 49.15% | 85 |
| 5 | Strongly Agree | 10.73% | 19 |
| | Total | 100% | |
| | | | 173 |

Q38 - Drug addiction is a treatable illness.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 0.00% | 0 |
| 2 | Disagree | 1.13% | 2 |
| 3 | Uncertain | 6.21% | 10 |
| 4 | Agree | 61.02% | 105 |
| 5 | Strongly Agree | 31.64% | 56 |
| | Total | 100% | |
| | | | 173 |

Q39 - Alcoholism is a treatable illness.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 0.00% | 0 |
| 2 | Disagree | 0.56% | 1 |
| 3 | Uncertain | 5.65% | 10 |
| 4 | Agree | 61.02% | 105 |
| 5 | Strongly Agree | 32.77% | 57 |
| | Total | 100% | |
| | | | 173 |

Q40 - An alcohol or drug-dependent person who has relapsed several times probably cannot be treated.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 21.02% | 36 |
| 2 | Disagree | 57.95% | 100 |
| 3 | Uncertain | 13.07% | 23 |
| 4 | Agree | 6.82% | 12 |
| 5 | Strongly Agree | 1.14% | 2 |
| | Total | 100% | |
| | | | 173 |

Q41 - Most alcohol and drug-dependent persons are unpleasant to work with as patients.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 7.95% | 14 |
| 2 | Disagree | 56.25% | 97 |
| 3 | Uncertain | 11.93% | 21 |
| 4 | Agree | 21.59% | 37 |
| 5 | Strongly Agree | 2.27% | 4 |
| | Total | 100% | |
| | | | 173 |

Q42 - An alcohol or drug dependent person cannot be helped until he/she has hit 'rock bottom'.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 10.80% | 19 |
| 2 | Disagree | 48.86% | 85 |
| 3 | Uncertain | 19.32% | 33 |
| 4 | Agree | 16.48% | 29 |
| 5 | Strongly Agree | 4.55% | 7 |
| | Total | 100% | |
| | | | 173 |

Q43 - A physician who has been addicted to narcotics should not be allowed to practice medicine again.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 9.66% | 17 |
| 2 | Disagree | 49.43% | 86 |
| 3 | Uncertain | 21.02% | 36 |
| 4 | Agree | 14.20% | 24 |
| 5 | Strongly Agree | 5.68% | 10 |
| | Total | 100% | |
| | | | 173 |

Q44 - Clergymen should not drink in public.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 9.09% | 16 |
| 2 | Disagree | 61.36% | 106 |
| 3 | Uncertain | 10.23% | 18 |
| 4 | Agree | 15.34% | 27 |
| 5 | Strongly Agree | 3.98% | 6 |
| | Total | 100% | |
| | | | 173 |

Q45 - Street pushers are the initial source of drugs for young people.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 18.75% | 32 |
| 2 | Disagree | 47.16% | 82 |
| 3 | Uncertain | 12.50% | 22 |
| 4 | Agree | 15.34% | 27 |
| 5 | Strongly Agree | 6.25% | 10 |
| | Total | 100% | |
| | | | 173 |

Q46 - Alcohol is so dangerous that it could destroy the youth of our country if it wasn't controlled by law.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 8.00% | 14 |
| 2 | Disagree | 35.43% | 61 |
| 3 | Uncertain | 17.14% | 30 |
| 4 | Agree | 30.86% | 53 |
| 5 | Strongly Agree | 8.57% | 15 |
| | Total | 100% | |
| | | | 173 |

Q47 - Angry confrontation is necessary in the treatment of alcoholics or drug addicts.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 27.43% | 47 |
| 2 | Disagree | 58.29% | 101 |
| 3 | Uncertain | 9.14% | 16 |
| 4 | Agree | 5.14% | 9 |
| 5 | Strongly Agree | 0.00% | 0 |
| | Total | 100% | |
| | | | 173 |

Q48 - Chronic alcoholics who refuse treatment should be legally committed to long-term treatment.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 12.72% | 22 |
| 2 | Disagree | 47.98% | 83 |
| 3 | Uncertain | 20.81% | 36 |
| 4 | Agree | 13.87% | 24 |
| 5 | Strongly Agree | 4.62% | 8 |
| | Total | 100% | |
| | | | 173 |

Q49 - Alcohol and drug abusers should only be treated by specialists in that field.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 2.89% | 5 |
| 2 | Disagree | 21.97% | 38 |
| 3 | Uncertain | 15.03% | 26 |
| 4 | Agree | 46.24% | 80 |
| 5 | Strongly Agree | 13.87% | 24 |
| | Total | 100% | |
| | | | 173 |

Q50 - Alcoholism is associated with a weak will.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 27.17% | 47 |
| 2 | Disagree | 50.87% | 88 |
| 3 | Uncertain | 9.25% | 16 |
| 4 | Agree | 10.98% | 19 |
| 5 | Strongly Agree | 1.73% | 3 |
| | Total | 100% | |
| | | | 173 |

Q51 - Using any hard drugs shortens one's life span.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 1.16% | 2 |
| 2 | Disagree | 8.67% | 15 |
| 3 | Uncertain | 12.72% | 22 |
| 4 | Agree | 52.02% | 90 |
| 5 | Strongly Agree | 25.43% | 44 |
| | Total | 100% | |
| | | | 173 |

Q52 - The laws governing the use of marijuana and heroin should be the same.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 30.06% | 52 |
| 2 | Disagree | 44.51% | 77 |
| 3 | Uncertain | 8.67% | 15 |
| 4 | Agree | 13.87% | 24 |
| 5 | Strongly Agree | 2.89% | 5 |
| | Total | 100% | |
| | | | 173 |

Q53 - Alcohol is an effective social relaxant.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 4.05% | 7 |
| 2 | Disagree | 27.17% | 47 |
| 3 | Uncertain | 18.50% | 32 |
| 4 | Agree | 49.13% | 85 |
| 5 | Strongly Agree | 1.16% | 2 |
| | Total | 100% | |
| | | | 173 |

Q54 - Any drug can be safely used by a person who is mentally healthy.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 30.64% | 53 |
| 2 | Disagree | 52.02% | 90 |
| 3 | Uncertain | 10.98% | 19 |
| 4 | Agree | 4.05% | 7 |
| 5 | Strongly Agree | 2.31% | 4 |
| | Total | 100% | |
| | | | 173 |

Q55 - Almost anyone would turn to drugs if their problems were great enough.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 31.79% | 55 |
| 2 | Disagree | 47.98% | 83 |
| 3 | Uncertain | 10.40% | 18 |
| 4 | Agree | 6.36% | 11 |
| 5 | Strongly Agree | 3.47% | 6 |
| | Total | 100% | |
| | | | 173 |

Q56 - Alcohol is a food, not a drug.

| | Answer | % | Responses |
|---|-------------------|--------|-----------|
| 1 | Strongly Disagree | 43.35% | 75 |
| 2 | Disagree | 50.29% | 87 |
| 3 | Uncertain | 2.89% | 5 |
| 4 | Agree | 2.89% | 5 |
| 5 | Strongly Agree | 0.58% | 1 |
| | Total | 100% | |
| | | | 173 |

Q57 - Physicians are an important source of drugs for most users.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 2.89% | 5 |
| 2 | Disagree | 19.65% | 34 |
| 3 | Uncertain | 19.65% | 34 |
| 4 | Agree | 49.71% | 86 |
| 5 | Strongly Agree | 8.09% | 14 |
| | Total | 100% | |
| | | | 173 |

Q58 - Physicians should not smoke tobacco in front of their patients.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 0.58% | 1 |
| 2 | Disagree | 5.20% | 9 |
| 3 | Uncertain | 3.47% | 6 |
| 4 | Agree | 43.93% | 76 |
| 5 | Strongly Agree | 46.82% | 81 |
| | Total | 100% | |
| | | | 173 |

Q59 - Tobacco should not be smoked in the rooms where non-smokers are present.

| | Answer | Percentage | Responses |
|---|-------------------|------------|-----------|
| 1 | Strongly Disagree | 0.58% | 1 |
| 2 | Disagree | 1.16% | 2 |
| 3 | Uncertain | 2.31% | 4 |
| 4 | Agree | 32.37% | 56 |
| 5 | Strongly Agree | 63.58% | 110 |
| | Total | 100% | |
| | | | 173 |

(Chappel et al., 1985)