


2012

Increasing Participation in the North Carolina Controlled Substances Reporting System Registration Among Western North Carolina Nurse Practitioners

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Increasing Participation in the North Carolina Controlled Substances Reporting System

Registration Among Western North Carolina Nurse Practitioners

by

Elizabeth Scism

A capstone project submitted to the faculty of
Gardner-Webb University School of Nursing
in partial fulfillment of the requirements for the degree of
Doctorate of Nursing Practice

Boiling Springs

2012

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Approval Page

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Abstract

The misuse of prescription drugs for non-medical purposes is a risk to public health and safety. The rates of misuse and diversion of prescription drugs have nearly doubled since the 1990s. This project explored the importance of educating Nurse Practitioners (NPs) in North Carolina (NC) regarding the registration and utilization of the North Carolina Controlled Substances Reporting System (NCCSRS). This reporting system was designed to identify and prevent diversion and to reduce morbidity and mortality of unintentional drug overdoses among primary care patients. A website was developed to showcase the multiple benefits and encourage registration and utilization of the NCCSRS among NPs in NC. Postcards were mailed to 495 NPs in 26 counties in Western North Carolina with the intention of increasing registration with the NCCSRS. A pre-registration count of the midlevel practitioners registered with the NCCSRS was obtained prior to the website being posted and then after a three month period a post-registration count was obtained. This scholarly project has the potential to increase the number of Nurse Practitioners practicing in Western North Carolina registered with the North Carolina Controlled Substances Reporting System through online education.

Keywords: prescription drug misuse/abuse, Prescription Drug Monitoring, On-line Continuing Medical Education

Acknowledgements

This scholarly project would not have been possible without God, my Lord and Savior, for giving me the strength and knowledge to complete such an incredible task. I would also like to thank my parents for watching my three kids anytime that I needed so that I could take the time outside of working full-time and being a wife and mother to complete my project. I thank my husband and children for their patience and understanding during this trying time. I thank my Chairperson, Anna Hamrick, who would redirect me and guide me during stressful times, and for being a great friend and support system. I also thank all of the wonderful professors at Gardner-Webb University for developing this program and making it possible to receive a higher education. And thanks to Mona, the librarian, for all of her knowledge and capabilities to be able to find any research article in or out of circulation. Lastly, I offer my regards and blessings to all of my fellow students, who supported me in any respect during the completion of this project and along with myself will be the first graduating DNP class from Gardner-Webb University.

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Chapter I

Introduction

In the late 1990s, epidemiological data began to indicate a higher prevalence of prescription drug misuse. Three types of prescription drugs are misused or abused most often: opioids, benzodiazepines, and stimulants. Medications can be effective when they are used properly, but some can be addictive and dangerous when misused (NIDA, 2010). Most Americans take their medications responsibly, however, in 2009 there were 7 million Americans aged 12 years and older who abused prescription drugs for non-medical purposes within the past month, up from 6.2 million in 2008. This represents a 13 percent increase in just one year (DEA, 2011).

Substance abuse knows no boundaries and encompasses people of all ages, races and economic backgrounds. While the new generation, ranging from the age of 12 to 17, abuse drugs through recreational use; the older adult may be abusing drugs by obtaining prescriptions from a multitude of healthcare providers. Because of the effect of drug abuse on mental and physical health, Nurse Practitioners (NPs) should be aware of the problems of addiction across the lifespan.

Introduction to the Problem

Effective and safe treatment of patients in need of controlled prescription medications can be challenging. Often, the NP's fear of patient addiction and regulatory scrutiny prevent availability to persons in need of controlled prescription drug management. A few simple strategies may help guide the practice of prescribing controlled substances for legitimate medical purposes, while reducing the risk of abuse, misuse, or diversion for illegal use. These strategies consist of careful selection and assessment of patients, establishing a comprehensive treatment plan, frequent

reassessment and documentation, and utilizing the North Carolina Substances Reporting System (Bruckenthal, 2007).

Purpose of the Study

As primary care providers, NPs effectively manage chronic problems treated with scheduled medications. NPs prescribing medications for patient with valid health problems should not fear disciplinary action from the Drug Enforcement Agency or from state regulatory boards. The North Carolina Substances Reporting System (NCCSRS) monitors prescription activity to support primary care providers in the provision of safe, quality, and effective care to their patients (Gerhardt, 2004).

The NCCSRS is a statewide reporting system. The system was established in 2007 by North Carolina to improve the state's ability to identify people who abuse or misuse prescription drugs classified as schedule II-V controlled substances. Controlled substances are defined as drugs which have been declared by federal or state law to be illegal for sale or use, but may be dispensed under a physician's or NP's prescription.

The NCCSRS is located on the North Carolina Division of Mental Health, Developmental Disabilities and Substance Abuse Services Website, <https://nccsrsp.hidinc.com>, and is designed to assist clinicians in identifying, referring and treating patients misusing controlled substances.

The purpose of this scholarly project is to educate NPs practicing in NC to increase the number of primary care providers registered with the NCCSRS.

Ultimately, the intention is to increase registration and to increase the use of this system in order to decrease the misuse of controlled substances.

Background

The misuse of prescription drugs for non-medical purposes is a risk to public health and safety. The rates of misuse and diversion of prescription drugs for non-medical uses have nearly doubled since the 1990s. According to Columbia University's National Center on Addiction and Substance Abuse nearly 15.1 million Americans report abusing prescription drugs. This is more than the combined number of people who admit to abusing cocaine, hallucinogens, heroin, and inhalants (Nevada RNFormation, 2010).

Significance

Established in 2006 in response to extremely high unintentional drug poisoning deaths, Project Lazarus is the secular public health component of a non-profit organization in North Carolina. Founders of the Project Lazarus initiative recognized "overdose" rates in Wilkes County, North Carolina were four times higher than the states average. Using experience, data, and compassion, Project Lazarus empowers communities and individuals in Wilkes County and throughout North Carolina to prevent drug overdoses and meet the needs of those living with chronic pain in the community. Project Lazarus enables overdose prevention by providing technical assistance to create and maintain community coalitions; harnessing existing public health data and empowering community groups to create locally tailored drug overdose prevention programs by connecting them to state and national resources (projectlazarus.org).

In 2004, The Journal of American Academy of Nurse Practitioners published that Advanced Practice Nurses (APNs) in 44 states have obtained some form of prescriptive authority for controlled medications. This prescriptive authority carries

responsibilities for the safety and well-being of patients, and ramifications for personal careers and the nursing profession. Advanced Practice Nurses are responsible for safe prescribing of all medications, especially controlled substances.

Effective pain management is one of the most important benefits of modern medicine. Although the misuse of prescription drugs regulated by the Controlled Substance Act of 1971 surpasses all illegal drug usage combined, NPs should feel confident in treating pain with controlled medications. As primary providers, NPs are educated to be aware of the manipulating behaviors of drug-seeking patients.

Gerhardt (2004) identified common signs and symptoms of drug seeking behavior and stated that while it is important to trust your patients, it is also important to maintain a healthy degree of skepticism. Common characteristics found in drug seeking patients are escalation in use, provider shopping and scamming to procure additional medications, with compliments, gifts, or threats. The North Carolina Controlled Substance Reporting System has the potential to assist NPs. With utilization of this system, drug-seeking patients can be identified much earlier than before (Gerhardt, 2004). The reporting system was designed in July 2007 to identify patients by making information available to all providers registered by supplying data such as controlled medications written, number dispensed, prescribing provider and dispensing drug store. The reporting system goes back months to years with information about that specific patient so that trends in drug abuse can be identified and assistance can be offered.

The increasing problem of the diversion and misuse of prescription drugs for illegal use is a disturbing trend in the nation's battle against drug abuse. According to the Drug Enforcement Administration (DEA), increases in the extent of prescription

drug abuse and in emergency room admissions related to prescription drug abuse, as well as an increase in the theft and illegal resale of prescription drugs, indicate that drug diversion is a growing problem nationwide. State Monitoring Programs or Prescription Drug Monitoring Programs (PDMP) have been put in place to help fight this growing problem. PDMPs collect information about prescribing, dispensing, and use of prescription drugs and distribute it to medical practitioners, pharmacies, and state law enforcement to help identify and prevent prescription drug diversion. These programs educate the public, providers, and pharmacists regarding the nature and extent of the problem and medical treatment options for abusers of diverted drugs (United States General Accounting Office, 2002).

The misuse of prescription drugs is a major concern for everyone due to the uncalculated cost of diversion and abuse of prescription drugs to society in terms of addiction, overdose, death, and related criminal activity. State laws govern the prescribing and dispensing of prescription drugs by licensed healthcare professional such as medical providers and pharmacists. The monitoring programs can be used to evaluate prescribing patterns to identify medical providers that may be over-prescribing and inform them that their patterns are unusual. These programs also have the ability to focus law enforcement and regulatory investigators on suspected drug diversion cases to specific physicians, pharmacies, and patients who may be involved in the alleged activities and are crucial to shorten investigation time and improve productivity (US GAO, 2002).

Theoretical Framework

In the late 1960s, Lydia Hall designed a model that can be utilized to approach prescription drug abuse and misuse. The Hall Core, Care, and Cure Model (HCC&C)

frames an approach to guide reduction in the epidemic of prescription drug abuse. The components of the HCC&C serve as theoretical underpinnings for this scholarly project to increase the North Carolina Controlled Substances Reporting System registration. Hall's theory has three major concepts, which are the "Core", "Care", and "Cure". According to Hall, the "Core" represents the person or the social science, the "Care" represents the body or biological science, and the "Cure" addresses the disease or the pathological science (Alligood and Tomey, 2010).

This HCC&C correlates with the variables associated with this scholarly project to increase registration on NCCSRS through education of Nurse Practitioners. In this project the "Core" is considered to be the patient who is addicted or diverting the medication. The "Care" encompasses Nurse Practitioners who prescribe controlled medications. The "Cure" refers to the primary care provider registration and utilization of the NCCSRS that has the potential to allow identification of persons misusing prescription drugs. Nurse Practitioners (care), utilizing the NCCSRS (cure) and intervening through treatment and referral, have the potential to improve patient (core) outcomes. The HCC&C combines all three concepts of the scholarly project as a holistic approach to nursing care.

Chapter II

Literature Review

Prescription Drug Abuse

In the past decade, prescription drug abuse has soared to new levels. A recent White House study found a 400 percent increase in abuse from 1998 to 2008. The problem continues to escalate nationally, despite prescription drug monitoring programs already running in 33 states (stateline.org, 2010). North Carolina started their controlled substances reporting program in 2007. Given that these programs are in place, the question arises: Are Nurse Practitioners practicing in Family Practices aware of this system and utilizing this system to help this growing problem? Education is needed regarding the benefits of this system in reducing prescription drug abuse. Many research studies have focused on ways of treating patients abusing or misusing controlled prescription drugs.

There is an epidemic of prescription drug abuse in America. According to The Executive Office of the President of the United States of America, this is a crisis in need of a response. Prescription drug abuse is the nation's fastest growing drug problem. There has been a decrease in illegal drugs according to the National Survey on Drug Use and Health (NSDUH) for the first time since 2009 and there has been an increase in using a prescription drug non-medically (The Executive Office, 2011). A crucial step in tackling the problem is education; there is a need to increase awareness of parents, youth, patients, and healthcare providers. There is a great need in raising awareness about the dangers of using prescription drugs illegally, leading to addiction and even death. The cost of healthcare has risen in response to addiction treatment

and hospitalizations from drug overdose. One of the most important places to start is with the prescribers, even brief interventions by primary care providers have proven effective in reducing or eliminating substance abuse in patients who abuse drugs but were not yet addicted to them.

Baldasare (2011) conducted a literature review regarding the cost of prescription drug abuse. The studies reviewed were published between 2000 and 2010. The literature review concluded that 20.6% of Americans have abused prescription drugs in their lifetimes. The proportion of all substance abuse treatment admissions increased more than fourfold between 1998 and 2008, from 2.2% to 9.8%. Emergency department visits involving misuse or abuse of pharmaceuticals increased 98.4% between 2004 and 2009 in the United States. In 2005, federal, state and local government spending, as a result to substance abuse and addiction, was at least \$467.7 billion. Almost three-quarters (71.1%) of the total federal and state spending on substance abuse is in two areas: health care and justice costs (Baldasare, 2011). The public health concerns should be related to the cost of this epidemic, the millions of residential burglaries in the U.S. each year targeting prescription drugs and the senseless deaths from overdose with teens and young adults not realizing the dangers of prescription drugs.

Forty-three states have authorized prescription drug monitoring programs and are paid for by state and federal funds. These programs can and should serve a multitude of functions, including: assisting in patient care, providing early warning of drug abuse epidemics, evaluating interventions, and investigating drug diversion and insurance fraud (The Executive Office, 2011).

Webster and Webster (2005) conducted a study aimed at predicting aberrant behaviors in opioid-treated patients through preliminary validation of the opioid risk tool. 185 consecutive new patients treated in one pain clinic completed the Opioid Risk Tool (ORT). This tool was self-administered and measured the following risk factors associated in scientific literature with substance abuse: personal and family history, preadolescent sexual abuse, and certain psychological disease. Patients received scores 0-3 (low risk), 4-7 (moderate risk), or greater than 8 (high risk), indicating the probability of displaying opioid-related aberrant behaviors, all were then monitored for next 12 months for these behaviors. Webster and Webster concluded that the ORT, exhibited a high degree of sensitivity and specificity for determining which individual are at risk for opioid-related, aberrant behaviors. More studies need to be done in a variety of settings other than pain setting to determine the ORT's universal applicability.

Zahradnik, Otto, Crackau, and Lohrmann (2009) conducted a randomized controlled trial of a brief intervention for problematic prescription drug use in non-treatment-seeking patients. This study looked at how a brief intervention delivered in general hospitals might be useful to promote discontinuation or reduction of problematic prescription drug use. 126 patients were selected who met criteria for either regular use of prescription drugs or dependency/ abuse of prescription drugs. Subjects were randomly allocated into two groups, one group received two counseling sessions based on Motivational Interviewing plus individualized written feedback and the second group received Motivational Interviewing and a booklet on health behavior. After three months, the study showed that the subjects receiving Motivational Interviewing plus individualized written feedback reduced their

prescription drug intake more than the group that received Motivational Interviewing plus a booklet on health behavior.

A study by Zahradnik et al. (2009), evaluated a questionnaire to screen prescription drug misuse, the QPM. The study revealed this instrument to need further validation. The study used a secondary screening questionnaire, the severity of dependency scale (SDS). The study also pointed out that the patients screened were older and more often female which could have led to a selection bias. The strengths of the study ensure clinical representativeness: non-treatment-seeking, prescription drug addiction, diagnosed with misuse or dependency, with higher rate of psychiatric co morbidity, since this was not in the exclusion criteria. Despite limitations, the study has important clinical implications regarding verbal and written information, showing that the combined were more effective.

Liddle et al. (2008) examined the efficacy of two adolescent drug abuse treatments: Individual cognitive behavioral therapy (CBT) and a multidimensional family treatment (MDFT). This study randomly placed 224 youths, with the average age of 15 years, from single parent homes, in each of the two groups. All the youth were drug users. Data was collected at baseline, termination, 6 and 12 months post-termination. The conclusion of the study showed both interventions were promising but the group placed in the MDFT group sustained abstinence from drugs longer. Liddle et al. (2008) acknowledged one of their limitations was that their participants were primarily low-income, urban, African American males. Secondly, the data was subjective relying on self-report data. Thirdly, the study did not adjust for multiple statistical comparisons; therefore, replication of these findings is needed. The strengths of the study included the fully randomized design employing two highly

developed and promising adolescent drug abuse treatments, with a relatively long-term follow up of one year.

Sheu et al. (2008) looked at the prevalence and characteristics of chronic pain in patients admitted to an outpatient drug and alcohol treatment program. A pain survey was administered to 79 patients attending an outpatient drug and alcohol treatment program. The study evaluated the prevalence, characteristics, and correlation of chronic pain in a population of predominantly employed, alcoholic patients attending an outpatient drug and alcohol treatment program. A pain survey was administered to patients with chronic pain being defined as lasting more than six months and was either moderate to severe in intensity or significantly interfered with daily activities. Chronic severe pain was prevalent in this population; pain was associated with significant functional impairment, medical and psychiatric comorbidities, and abuse behaviors. Few patients reported adequate pain relief. This study showed that efforts should be made to better address pain problems in this population. Sheu et al. (2008) pointed out important limitations of the study including the convenience sample limiting generalization to other patient populations or programs with different characteristics. Another limitation was, although data was collected anonymously, the questionnaire was completed at the treatment facility, which could have influenced responses. Despite the limitations, the data collected suggested that pain is a significant problem in diverse populations with chemical dependency. This study found compelling evidence that further exploration is needed with relationships with pain, substance abuse, and varied medical and psychiatric comorbidities.

McCabe et al. (2007) examined the associations between early onset of non-medical use of prescription drugs and the development of prescription drug abuse and

dependence in the United States. Data was collected from structured diagnostic interviews. An interview guide, the Alcohol Use Disorder and Associated Disabilities Interview developed by The National Institute on Alcohol Abuse and Alcoholism (NIAAA) was used in the study. The study used a nationally representative cross-sectional sample of civilian non-institutionalized adults aged 18 or older in the US, of whom 52% were women and 71% were white. A higher percentage of individuals who began using prescription drugs non-medically at or before 13 years of age were found to have developed prescription drug abuse and dependence versus those individuals who began using at or after 21 years of age. Strengths of the study by McCabe et al. (2007) included the assessment of lifetime DSM-IV drug abuse and dependence for specific prescription drug classes. The large sample size of the NESARC allowed for the calculation of prevalence estimates of individual prescription drug classes. Finally, the nature of the sample allowed for generalization of the study findings.

Raistrick et al. (2008) surveyed National Health Service (NHS) staff in one NHS Region to determine the extent of substance use and related problems, and the therapeutic attitudes towards people with substance misuse problems. This was a single-phase cross-sectional survey of health care professionals across six health authorities in England. Fifteen service areas were randomly selected from general psychiatry, emergency, and general medicine. Forty-two percent of the questionnaires were returned. NHS staff reported similar rates of drinking, smoking and illicit drug use. Doctors reported smoked less and used fewer illicit drugs than did health care assistants. In contrast, the survey found that doctors in specialties scored low on role legitimacy of working with substance misusers. Raistrick et al. (2008) discussed the

limitations of their study, primarily the return rate of 42%. The researchers were allowed to present the purpose of the survey to all ward staff prior to commencing the survey and did not detect resistance at this stage, which suggests access to follow-up staff directly for returns would have been productive. Lastly, given the low response rate, there is an issue of possible response bias.

Samet et al. (2003) researched linking alcohol and drug dependent adults to primary medical care. This study was a randomized controlled trial of a multidisciplinary health intervention in a detoxification unit. The study found residential detoxification programs had the desire of linking patients to primary medical care. Patients were enrolled who were undergoing in-patient detoxification from alcohol, heroin or cocaine and who had no primary care physician. The intervention consists of a clinical evaluation at the detoxification unit. The program used the acronym HELP for Health Evaluation and Linkage to Primary care. The HELP clinic was operated by a nurse, a social worker and a physician who facilitated the referral to an offsite primary care clinic. The primary outcome of interest in this study was attendance at a primary care appointment within 12 months. Secondary outcomes of interest were the severity of the addiction over 24 months, health – related quality of life, and the utilization of medical and addiction services. The study found that of the 470 subjects enrolled, 235 were randomized to the HELP clinic intervention. The clinic was similarly effective for subjects with alcohol and drug problems. Randomization to the HELP clinic resulted in no significant difference in secondary outcomes. The study utilized a “reachable moment”, the period of addiction care, as a window of opportunity for linking substance abusers to medical care. The study had multiple limitations. Important factors were not addressed, such

as, the patient –physician relationship, the primary outcome was based on subject self-report at follow up, and only 68% of participants were followed up with after the initial 12 months. The study acknowledges the theoretical and empirical benefits of the collaborative efforts between substance abuse treatment providers and primary medical care clinicians.

Another study by Carpentier et al. (2005) was a controlled clinical trial of methylphenidate in adults with attention deficit/hyperactivity disorder (ADHD) and substance use disorder. This study was a double blinded, placebo-controlled, multiple crossover comparative trial of methylphenidate and placebo. The study examined the short-term effectiveness of methylphenidate in adults with ADHD with substance use disorders. Twenty-five patients who were receiving in-patient treatment for various substance use disorders, and who also had ADHD. The study took place over eight weeks; each participant completed two phases of placebo and two phases of active medication. ADHD was measured with the ADHD rating scale-IV. The results were compared using MANOVA repeated measures. The findings of the study included only 19 of the 25 patients completed the trial. A significant reduction in ADHD symptoms was observed in both conditions in the first week. The positive response for active treatment (nine patients: 36%) was not significantly higher than the group-receiving placebo (five patients: 20%). This was a small pilot study with limited results. Twenty-four percent of the participants were unable to complete the trial, probably due to serious psychiatric problems in this population and the demands made in an eight week controlled trial.

Naeem et al. (2007) conducted a controlled trial to compare the effectiveness of drug treatment and testing orders (DTTO) with standard care. The study looked at the

effectiveness of Drug Treatment and Testing Orders in reducing rates of crime and drug use. This was a non-randomized, matched group, controlled trial of DTTOs versus standard care. Clients in the study were followed up to one year. Clients were in an intervention group at a Drug and Alcohol Use Service and sentenced by the courts to DTTOs. The order imposes certain conditions on clients who are under treatment in the community and who have problems with drug use and criminal records. Clients in the controlled group received care as usual, which involves information regarding drug use, criminal record, physical and mental health. The clients in the DTTO group had a treatment requirement, testing requirement, and court review requirement. The client's quality of life was measured baseline and then at a 12-month follow up. The DTTO group showed statistically significant improvement in their drug use, this group found to be more satisfied with their treatment at end of study. The study showed that DTTOs were more effective than the treatment as usual in reducing drug use. Naeem et al. (2007) was the first study to address this issue. There is a need for the study to be repeated with improved methods and a bigger sample. DTTOs were shown to be significant and effective in reducing drug use.

The misuse of prescription drugs for non-medical purposes is a risk to public health and safety. The rates of misuse and diversion of prescription drugs to non-medical uses have nearly doubled since the 1990s. According to Columbia University's National Center on Addiction and Substance Abuse, nearly 15.1 million Americans report abusing prescription drugs. This is more than the combined number of people who admit to abusing cocaine, hallucinogens, heroin, and inhalants (Curley, 2010).

On-line Continuing Medical Education

Zimitat, (2002) feels the Internet is the future for improving providers knowledge and effects change in their clinical practice. He found approximately 100 websites offering on-line continuing medical education (CME) courses in the USA alone. According to Zimitat, the basic principles of online CME are learner-centered, on-line environment and strategies. Effective CME is designed to maintain learner's needs, keeping the learner engaged and reinforced, and developing personal meaningfulness of the information through discussion, elaboration, and feedback. Most importantly in designing CME is to activate prior knowledge as a framework and to enable building of new knowledge structures; use of a variety of learning experiences, learning and practice in context through case-based study to aid clinical reasoning.

Harden (2005) believes distance learning and continuing medical education being a new vision for meeting criteria for educational needs and on-line CME developed effectively has to meet a certain criteria. According to Harden, the criteria for effective CME are convenience, relevance, individualization, self-assessment, independent learning, and a systematic approach. The success of technology-based education will be determined by the extent to which the providers embrace the new technologies, increased access to computers, and the creation of new models of funding education. Harden urges the establishment of partnerships between educators, technologists, and content specialist.

Corral et al. (2006) compared internet-based learning to traditional teaching. The researchers felt the development of online education questions has resulted in questions regarding the quality of the learning. The aim of this study was to evaluate

the real learning of the students of doctorate courses, by comparing the effectiveness of distance learning in UniNet (Internet-based network for a virtual community) with traditional classroom-based teaching. Five courses were taught simultaneously to two independent groups of students either by UniNet or by traditional classroom. The Student's t-test for independent groups were used to compare the two groups. The results showed no significant statistical differences in the outcomes of the two groups of students. The study suggests that both teaching systems were equivalent in increasing student's knowledge.

Atack et al. (2002) conducted a descriptive study of registered nurses' experiences with web-based learning. The study aims to describe the experiences of registered nurses (RNs) enrolled in a web-based course. The rationale of the study discussed the importance of staying competent in a rapidly changing health care system, the need to overcome barriers regarding technology and acceptance of innovative educational delivery methods. The study focused on the results from questionnaires conducted with 57 RNs enrolled in a web-based, post-diploma course. Most of the nurses involved in the study found the course to be highly satisfactory. The negative feedback was related to limited access to the computer course not from home but in the work environment, which created insufficient time to complete course assignments. There were significant gains in the RNs learning regarding email, Internet, keyboarding and word processing skills during the 16-week course. The majority of the withdrawals from the web-based course were related to inadequate preparation for web learning. The conclusion of the study determined that web-based learning can be an effective mode of delivery for nursing education. The study pointed out that advanced preparation by educational institutions, employers, and

prospective students is essential. The key variables that influence the learners' experience and success include the teachers, peers, technology, course design and the learning environment. The limitations of the study, was that the faculty teaching the web-based course were fully informed about the research taking place with the RNs in their course, which could have influenced teaching practices and nurses' experiences.

The Hall Core, Care and Cure Model

McCoy et al. (2007) conducted a correlational pilot study of home health nurse management of heart failure patients and hospital readmissions. For patients 65 years and older, heart failure is the leading cause of hospital admissions. This pilot study shows the importance of home health nursing for heart failure patients post hospital discharge. This study uses Lydia Hall's Care, Cure, and Core Theory to show the importance of interventions used by home health nursing with heart failure patients.

The framework of Hall's Care, Cure, and Core Theory (Hall, 1964) was used to gain knowledge of the relationship of heart failure patients and frequency of hospital admissions (McCoy, 2007). The study arranged the model into three circles: the Care Circle represents the patient's body; the Cure Circle represent the disease affecting the patient's physical system; and the Core Circle represents the person such as the inner feeling and management of self. The three circles overlap and change in size, demonstrating the current phase of the disease process. The clinical application used Lydia Hall's theory to show improvement in patient-nurse communication, patient self-growth, and patient self-awareness with their disease process. Limitations of this study was that several readmissions of the subjects were related to other diagnoses not related to their heart failure disease process, such as gallbladder disease and urinary tract infections. Future studies are needed to determine admission of heart failure

exacerbation and unrelated readmissions. The data analysis did not show a significant correlation, the lack of correlation suggest that readmissions were not prevented.

According to Stewart and Horowitz (2002), home health multidisciplinary team follow-up may assist patients and caregivers in recognizing the symptoms of reoccurring onset of heart failure. The 12-month study randomly selected 165 patients with left ventricular systolic dysfunction admitted to the hospital's acute medical unit. The patients were then randomly divided and placed in either a control group or an intervention group. Patients in the intervention group were given educational material regarding heart failure and treatment along with contact nurses, available to help with medication, labs and schedule visits.

Chapter III

Methodology

The NCCSRS was designed to have multiple benefits for primary care providers utilizing it. The goals of the registration system are:

- Identify and prevent diversion, to reduce morbidity and mortality from unintentional drug overdoses.
- Reduce the costs associated with the misuse and abuse of controlled substances. Assist clinicians in identifying and referring for patients misusing controlled substances.
- Reduce the cost for law enforcement for investigating cases of diversion and misuse.
- Inform the public, including health care professionals, of the use and abuse trends related to prescription drugs (NCCSRS, 2010).

Design

The objective of this scholarly project was to increase the registration on the NCCSRS through education of Nurse Practitioners (NPs) about the system via the internet. The increase in registration has the potential to increase the number of NPs utilizing the system to better identify prescription drug abusers. This scholarly project consisted of development of a website (RXMisuse.com) designed to increase NPs knowledge regarding the NCCSRS, including the purpose and benefits of the NCCSRS and registration procedures.

Educational Website

The project administrator developed the website, RXMisuse.com, to inform NPs about the NCCRS. The website gives the history of the NCCRS, information about

what the system has been developed for and the benefits to NPs if utilized. The registration form with directions was also offered for those wanting to register. Expressing the importance for this system to be utilized in practice has the potential to decrease the misuse, abuse, and diversion of prescription drugs. The RXMisuse website educated the NP about the information that is easily obtained regarding their patients and their pharmacies, other providers, and other prescriptions in which they may be using. The website, RXMisuse used Google analytics to monitor and record the number of visitors on the website. The project administrator consulted with a graphic designer in the design and establishment of the RXMisuse website. .

The website consists of the following five pages:

- Introduction to the North Carolina Controlled Substance (NCCSRS) reporting system
 - What, where, and why regarding the NCCSRS
- Registration
 - Screen shots of registration form and directions for completing
 - Weblink to registration form
- Implementation
 - Benefits to use of NCCSRS
- Query example
 - Screen shots of use of NCCSRS to assess a patient's use of a controlled substance
- Treatment following evidence of misuse of controlled substance
 - Example of best practice in confrontation of the issue with the patient
 - Example of generic referral for treatment

Informational Postcards

The mailing addresses for all Nurse Practitioners (NPs) actively practicing in North Carolina (NC) was obtained from the North Carolina Board of Nursing. Four hundred and ninety five practicing NPs were chosen randomly from all NPs actively practicing in NC. Twenty-six counties in western North Carolina were targeted for participation in the study due to the geographical location of the project administrator and the associated university.

In consultation with a graphic designer, the project administrator designed a postcard to solicit NPs to visit the website, RXMisuse.com. The postcard was a four by six inch, tricolor, single page card stock providing information regarding the project, the project administrator, the purpose of the project and the web link to access the RXMisuse educational website. The RXMisuse website was finalized and posted online prior to mailing the postcards. The recipients were encouraged to visit the project website, RXMisuse.com, to receive more information about the NCCSRS site and its importance in advanced practice nursing. Specifically, the educational postcard consisted of:

- Introduction of the project and project administrator
- Basic information regarding the NCCSRS
- Importance of NPs registration on NCCSRS
- The website address, RXMisuse.com

Participants

The project participants were NPs that access the website, RXMisuse.com, via the Internet. Google analytics was used to track daily visitors over a three month period along with the amount of time spent viewing the website. There was not be a

concern for the safety, privacy, confidentiality, or the protection of human subjects in this research project neither was there any need for obtaining a consent form due to the anonymous nature of the internet. The project administrator could not identify those accessing the RXMisuse.com website in any way. Nurse practitioners in a total of 296 counties received the postcard with the choice of anonymously going onto the website RXMisuse.com and obtaining the educational material. The NP may decide to register with the NCCSRS if they have not already registered in the past. If the NP has already registered then the RXMisuse website may reinforce the importance of utilization. The number of visits to the RXMisuse website was recorded by Google. According to the NCCSRS, all mid-levels practitioners are grouped together by their DEA numbers upon registration, separate registration data for NPs was unavailable. The number of Mid-level's registered with the NCCSRS pre and post viewing of the RXMisuse website in the three-month period was recorded.

NCCSRS Registration

Prior to mailing the informational postcards, the number of mid-level practitioners, NPs and Physician Assistants (PAs) registered with the NCCSRS by county was assessed. Three months following the mailing of the informational postcards, the number of mid-level practitioners registered with the NCCSRS was then reassessed. It was anticipated that with the number of participants visiting the website, RXMisuse.com, there would be an increase in number of NPs practicing in the target counties registered with the NCCSRS.

Chapter IV

Results

Sample Characteristics

Out of the 100 counties in North Carolina, Nurse Practitioners' (NPs) in 26 counties received postcards regarding the RXMisuse educational website about the North Carolina Controlled Substances Reporting System (NCCSRS). NPs in 74 counties did not receive post cards. A total of 495 postcards were mailed to nurse practitioners in the targeted counties. According to the NCCSRS report there were a total of 456 midlevel practitioners registered at the prior to the project. Three months following the mailing of the informational postcard this number increased to 506 midlevel practitioners registered. This 9% increase followed implementation of the RXMisuse educational website. Table 1 represents the number of NPs in the 26 counties receiving informational postcards and the number of midlevel practitioners registered with the NCCSRS prior to and following implementation of the RXMisuse educational website.

Table 1

Sample Demographics.

County	NPs receiving post cards	Pre-Project Midlevel Practitioners Registered with NCCSRS	Post-Project Midlevel Practitioners Registered with NCCSRS
Alleghany	3	0	2

Ashe	11	5	6
Avery	10	6	6
Buncombe	149	93	102
Burke	28	32	32
Caldwell	22	14	14
Cherokee	5	12	18
Clay	5	1	5
Cleveland	38	40	40
Cumberland	12	61	71
Graham	4	0	0
Haywood	18	17	18
Henderson	47	44	44
Jackson	21	12	12
Lincoln	1	14	20
Macon	6	4	4
Madison	9	8	9
McDowell	21	14	15
Mitchell	5	0	1
Polk	7	9	9
Rutherford	22	24	24
Swain	3	2	3
Transylvania	14	6	6
Watauga	21	9	11
Wilkes	2	20	25
Yancey	10	1	1

Major Findings

Intervention Group versus Non-Intervention Group

The intervention group was Nurse Practitioners in 26 counties in Western North Carolina. The non-intervention group included Nurse Practitioners in the other 74 counties of North Carolina.

An independent samples *t*-test was conducted to compare the number of midlevel practitioners registered with NCCSRS in the counties with NPs receiving post cards (intervention group) to the number of midlevel practitioners registered with NCCSRS in the counties with no NPs receiving post cards (non-intervention group) prior to implementation of the project.

The assumptions underlying the independent sample *t*-test include normal distribution, equal variances, random sample and independent scores. The data for both groups utilized in this study were analyzed for normal distribution utilizing q-q plots, histograms and skewness statistics. Results of this analysis revealed a non-normal distribution of the data according to the q-q plots and histograms, with skewness statistic greater than 1.96. The Leven's Test for Equality of Variances was not significant ($p=.13$ and $p=.14$) indicating no differences in the two groups for the two independent samples *t*-test.

The sample was randomly chosen from Western North Carolina counties, and no one county could be represented in both the experimental and control group. Descriptive analysis revealed the data met three of the assumptions of the independent samples *t* test. While the independent samples *t*-test with equal groups is normally robust against non-normality, the two groups in this study were not equal.

The result of the independent *t*-test comparing the two groups was not significant, indicating no differences in the counties prior to implementation of the project, $t(98) = 1.22, p = .22$.

The mean number of midlevel practitioners in the intervention group ($M=27.32$, $SD=39.82$) was not statistically significantly different from the mean number of midlevel practitioners in the non-intervention group ($M=17.23$, $SD=21.63$) prior to implementation of the project.

An independent sample *t*-test was conducted to compare the number of midlevel practitioners in the intervention group versus the non-intervention group. The result of the independent *t*-test comparing the two groups was not significant, indicating no differences in the counties following implementation of the project to increase the number of NPs registered with the NCCSRS, $t(98) = 1.17$, $p = .24$.

The mean number of midlevel practitioners in the intervention group ($M=19.15$, $SD=23.43$) was not statistically significantly different from the mean number of midlevel practitioners in the non-intervention group ($M=29.80$, $SD=43.81$) following to implementation of the project.

A paired-samples *t*-test was conducted to compare the mean number of midlevel practitioners, in the non-intervention group prior to and following implementation of the project. The assumptions underlying the paired samples *t*-test include normal distribution, random sample and independent scores. The data for the two groups utilized in this study were analyzed for normal distribution utilizing the histogram and skewness statistics. Results of this analysis revealed a non-normal distribution of the data according to the qq plots and histograms, with skewness statistic greater than 1.96.

Comparison within Intervention Group

The sample was randomly chosen from all NPs in Western North Carolina registered with the North Carolina Board of Nursing and no one county could be represented in both the experimental and control group. The paired samples t test should be robust in cases of non-normality due to the equal groups.

Statistical analysis revealed a significant difference in the number of midlevel practitioners registered with the NCCSRS in these counties, $t(73) = -3.15, p = .002$. For the counties not receiving postcards, the mean number of midlevel practitioners registered with the NCCSRS prior to implementation of the project ($M = 27.32, SD = 39.83$) was statistically significantly different from the mean number of midlevel practitioners registered with the NCCSRS following implementation of the project ($M = 29.80, SD = 43.81$).

A paired-samples t -test was conducted to compare the mean number of midlevel Practitioners registered in the intervention group prior to and following implementation of the project. Statistical analysis revealed a significant difference in the number of midlevel practitioners registered with the NCCSRS in these counties, $t(25) = -3.36, p = .002$.

For the counties receiving postcards, the mean number of midlevel practitioners registered with the NCCSRS prior to implementation of the project ($M = 17.23, SD = 21.63$) was statistically significantly different from the mean number of midlevel practitioners registered with the NCCSRS following implementation of the project ($M = 19.15, SD = 23.43$). Table 2 illustrates the means and standard deviations of the two groups before and after implementation of the project to increase the number of NPs registered with the NCCSRS.

Table 2
Means and Standard Deviations for the Pre and Post Project Number of Midlevel practitioners registered with NCCSRS.

Group	Pre Project Midlevel Practitioners		Post Project Midlevel Practitioners	
	M	SD	M	SD
Intervention Counties	17.23	21.63	19.15	23.43
Non-Intervention Counties	27.32	39.82	29.80	43.81

The website was monitored for a three month period starting November 4, 2011 until February 4, 2012. The data regarding the website was collected via Google analytics. The data showed that there were 55 website visits during the three month timeframe, with website visitors viewing an average of 5.44 pages per visit and spending one minute and 46 seconds per visit on the site. For the 55 visits, a total of 299 pages were viewed. The following table illustrates the number of views per page of the website:

Table 3

Website Page	Number of Page views	% of Page views
--------------	----------------------	-----------------

Home Page	102	34.11
Query Page	64	21.40
Registration Page	51	17.06
Implementation Page	45	15.05
Confrontation Page	37	12.37

The majority of the website visitors (78%) utilized Internet Explorer as their Internet Browser. Three major terms were used as keywords to search for the website: RXMisuse; nc controlled substances reporting; and nc csrs. There were visits from 32 cities, with the largest number from Asheville North Carolina (N= 16, 29%). Twenty-seven of the 55 visits (49%) were from the 26 targeted counties and 28 visits (50%) were from counties not utilized in the project.

Chapter V

Discussion

Discussion of Results

Out of the 100 counties in North Carolina, NPs in 26 received postcards regarding the RXMisuse educational website about the NCCSRS. NPs in 74 counties did not receive any postcards. The total number of midlevel practitioners registered before the educational postcards being mailed were 456 and the total number of midlevel practitioners registered after the educational postcards being mailed out were 506. A 9% increase followed implementation of the RXMisuse educational website. The two tests conducted were an independent samples *t*-test and a paired-samples *t*-test. These test were conducted to find significant mean differences between the two groups of midlevel practitioners registered with the NCCSRS, the midlevel practitioners in the counties that received the educational postcards and the midlevel practitioners in the counties that did not receive educational postcards.

The sample was randomly chosen from all NPs registered in Western NC and no one county could be represented in both the experimental and control group. The results of the independent samples *t*-test comparing the two groups was not significant, indicating no differences in the counties prior to implementation of the project to increase the number of NPs registered with the NCCSRS.

A paired-samples *t*-test was conducted to compare the mean number of midlevel practitioners registered with the NCCSRS in the 74 counties not receiving postcards prior to and following implementation of the project. Statistical analysis revealed a significant difference in the number of midlevel practitioners registered with the NCCSRS in these counties. For the counties not receiving postcards, the mean

number of midlevel practitioners registered with the NCCSRS prior to implementation of the project was statistically significantly different from the mean number of midlevel practitioners registered with the NCCSRS following implementation of the project.

A paired-samples *t*-test was conducted to compare the mean number of midlevel practitioners registered with the NCCSRS in the 26 counties receiving postcards prior to and following implementation of the project. Statistical analysis revealed a significant difference in the number of midlevel practitioners registered with the NCCSRS in these counties. For the counties receiving postcards, the mean number of midlevel practitioners registered with the NCCSRS prior to implementation of the project was significantly different from the mean number of midlevel practitioners registered with the NCCSRS following implementation of the project.

While the results showed that there was a difference in the number registered of the experimental group that was sent postcards, there was also a difference in the control group that did not receive postcards. The results suggest an external factor may have contributed to the increase of midlevel practitioners registering with the NCCSRS outside of this project. Potential external factors include an increase in educational presentations by the North Carolina Department of Health and Human Services (NCDHHS) in 2011. NCDHHS, along with pharmacy representatives, are working to develop community partnerships with North Carolina providers to increase awareness of prescription drug abuse and misuse.

Another potential external factor affecting the increase of midlevel practitioners registered with the NCCSRS was a new law enacted March 1, 2012 by North Carolina Governor Beverly Perdue. The new law requires photo identification

prior to the dispensing of certain controlled substances. This law has increased education by pharmacy representatives to increase the awareness for the utilization of the NCCSRS. These controlled substances consist of schedule II and schedule III prescription medications. If someone other than the intended prescription recipient retrieves prescriptions, patients must designate authorized “pickup persons”. This law intends to eliminate the persistent problem of unauthorized people picking up prescriptions for misuse, abuse, and diversion. Enactment of this law has resulted in additional publicity about prescription drug misuse. Added publicity may have impacted increase in of midlevel practitioners registered with the NCCSRS both in intervention and non-intervention counties.

Prescription Drug Abuse

Literature reviewed regarding prescription drug abuse suggested is an epidemic of prescription drug abuse and misuse in America. The financial cost to America’s health care system as well as the tragedy of losing a loved one to an overdose is too much to bear. More and more states continue to get prescription drug monitoring programs, which also cost the state and federal money with hope that these programs have great benefits. Given the national epidemic of prescription drug abuse and misuse, the importance of increased awareness by Nurse Practitioners and changing prescribing practice is necessary.

Online-continuing Medical Education

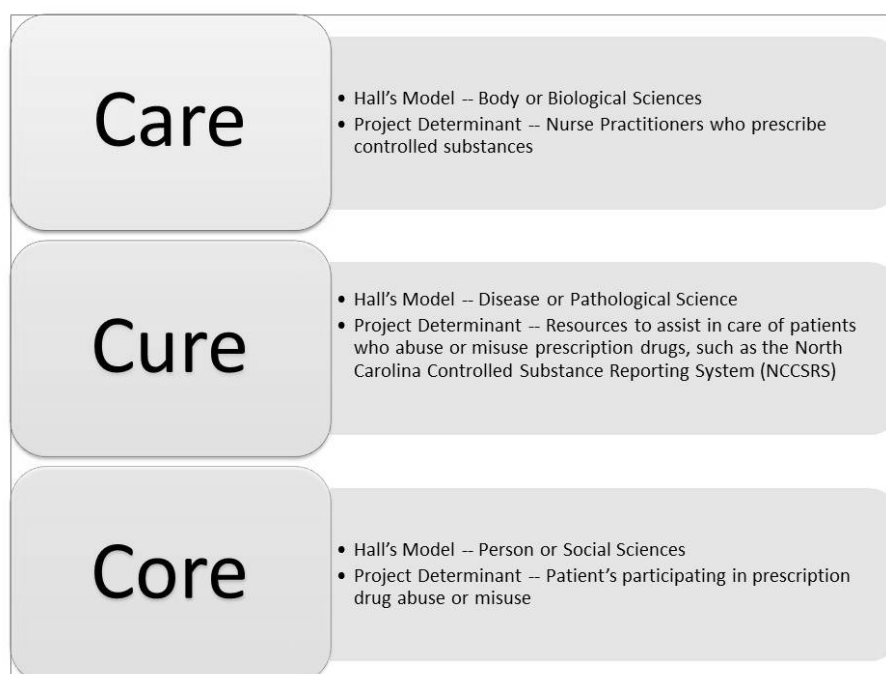
Results suggest that by targeted web based education toward Nurse Practitioners was an effective way to provide education about the benefits of registration to the NCCSRS. The results suggest that NPs who received postcards directing them toward the educational website, changed their practice and registered

with the NCCSRS. Literature regarding online-continuing medical education showed little to no difference between traditional face-to-face learning and distance learning. Advantages to web based education include flexibility, reduced cost and travel time, and the ability to self-pace. The disadvantages can be if the learner has low motivation, needs routine and structure, poor time management skills and prefers the traditional face-to-face interaction. The online educational method appears to be effective for NPs practicing in NC who may need encouragement to register and utilize the NCCSRS.

Theoretical Framework

Lydia Hall's Care, Cure, and Core Model is the underpinning theoretical framework for this project. Hall's theory consisted on three independent but interconnected circles: core, care and cure (Alligood and Tomey, 2010). These three concepts were applied to the three determinants of the project as pictured below in

Figure 1:



Significance of Results to Healthcare

Healthcare research continues to provide a vast array of medications to cure disease, ease suffering and pain, improve quality of life, and save lives. However with new scientific discoveries and new uses for existing compounds there also comes a risk of introducing the potential for diversion, abuse, morbidity, and mortality. Prescription drug misuse and abuse is a major public health and public safety crisis (Executive Office, 2011). Legislation is being passed to require providers that are registering for their DEA, to have training regarding appropriate and safe use of controlled drugs. Legislation requiring Prescription Drug Monitoring Programs be established in all 50 states is also pending. Education will continue to be crucial in tackling not only prescription drug misuse but increasing awareness of resources to monitor patient's use of controlled substances.

Limitations

At the time of the scholarly project, the North Carolina Board Of Nursing database of Nurse Practitioners included only postal mailing addresses and not electronic mail (email) addresses. Access to email addresses could have expedited access to NPs practicing in NC.

The NCCSRS database utilizes Drug Enforcement Agency controlled substance prescription numbers to group all registered midlevel practitioners together. Organization of the registrants in this manor prevented separation of registered Nurse Practitioners from registered Physician Assistance. Plans are underway to add a feature to the NCCSRS database to delineate NPs from PAs in the future.

Recommendations for practice

Ultimately the project recommends Nurse Practitioners' utilization of current resources such as the North Carolina Controlled Substance Reporting System to target the American epidemic of prescription drug abuse. Tools such as the NCCSRS are available to help providers safely prescribe controlled substances. Drug addiction continues to be a major concern for society. Safety and cost is directly related to crimes and incarceration, drug treatment programs, drug-related injuries and complications, time lost from work and social welfare programs. Investment into State and Federal programs, such as the NCCSRS, is necessary to impact safety and long term costs. Increased use of prescription drug monitoring systems such as NCCSRS by prescribing Nurse Practitioners in North Carolina can have positive impacts on the patients' lives that are affected by prescription drug abuse and misuse. Prescription drugs account for the second most commonly abused category of drugs in the United States, following marijuana. Around 70 percent of Americans visit their healthcare provider at least once every two years. NP's are in a unique position, not only to prescribe medications appropriately but to also identify prescription drug abuse when it exists and to help patients recognize the problem and seek treatment. One effective way to monitor and resolve this problem is by utilizing the NCCSRS.

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Appendix A IRB Approval



THE INSTITUTIONAL REVIEW BOARD
of
GARDNER-WEBB UNIVERSITY

This is to certify that the research project titled
Are Nurse Practitioners in North Carolina Utilizing the North Carolina Controlled Substances Reporting System?

being conducted by Beth Seism

has received approval by the Gardner-Webb University IRB.

Date 1/19/12

Exempt Research

Signed Andy Miller
Department/School/Program IRB Representative
Wahne Walker
Department/School/Program IRB Member

Expedited Research

Signed _____
Department/School/Program IRB Representative

Department/School/Program IRB Member

IRB Administrator or Chair or Institutional Officer

Non-Exempt (Full Review)

Signed _____
IRB Administrator

IRB Chair

IRB Institutional Officer

Expiration date _____

IRB Approval:


Exempt Expedited Non-Exempt (Full Review)

Revised 09-07

Appendix B

Project Website: RXMisuse.Com

RXMisuse.com is a 10 frame educational website targeted toward North Carolina Nurse Practitioners. Included in Appendix B is a copy of the 10 website frames.



NC Controlled Substances Reporting System

What When and Why **Registration** Implementation Query Confrontation

*Learn to use the CSRS in daily practice...
Easy as 1... 2... 3...*

The NC Department of Health and Human Services implemented the Controlled Substances Reporting System (CSRS) two years ago to monitor outpatient dispensing of prescription controlled substances on a statewide basis. The system is authorized by a 2005 state law, which clearly states the CSRS's purpose: To "improve the State's ability to identify controlled substance abusers and misusers and refer them for treatment, and to identify and stop diversion of prescription drugs in an efficient and cost-effective manner that will not impede the appropriate medical utilization of licit controlled substances."

- In, 2008, more than 16 million controlled substance prescriptions were written and dispensed in our state.
- More than 5 million (5,297,074) individual patients were recorded as having been dispensed a prescription for a controlled substance.
- Number of prescriptions in the database is 35,376,972.
- Number of deaths from controlled substance accidental poisoning:
 - January- December 2008: 798
 - January- June 2009: 443

Figure 2

NC Controlled Substances Reporting System

What When and Why Registration Implementation Query Confrontation

Register Your Account

Prescriber access registration form

1. [Download CSRS Application Form](#)
2. Complete Application and have notarized
3. Mail completed application, privacy statement and a copy of your driver's license to:

Controlled Substances Reporting System
Mail Service Center 3008
Raleigh, NC 27699-3008

Figure 3

NC Controlled Substances Reporting System



What When and Why Registration Implementation Query Confrontation

Use Your New Account

All prescriptions for controlled substances, schedule II through V, dispensed in North Carolina are reported into the CSRS database. Currently, pharmacies transmit the weekly. Prescribers and pharmacies register and are then granted a password to access the system online to look up a patient's controlled history. Information in the system dates back to July 2007. Prescribers may legally query for their patients only.

Program goals:

- To identify and prevent diversion of prescribed controlled substances.
- To reduce morbidity and mortality from unintentional drug overdoses.
- To reduce the cost associated with the misuse and abuse of controlled substances.
- To assist clinicians in identifying and referring for treatment patients misusing controlled substances.
- To reduce the cost for law enforcement of investigation cases of diversion and misuse.
- To inform the public, including health care professionals, of the use and abuse trends related to prescription drugs.

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Figure 4

Generate a Query

STEPS:

1. Register with the CSRS and receive username and password.
2. Click on Practitioner/Pharmacist Query on left side of the screen.

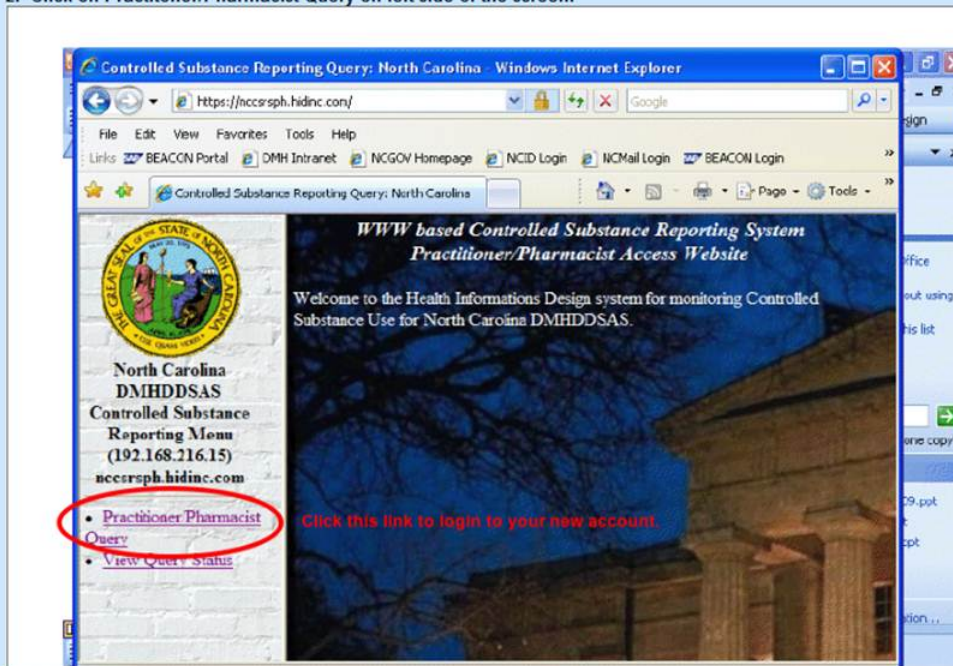


Figure 5

3. Agree to the conditions.

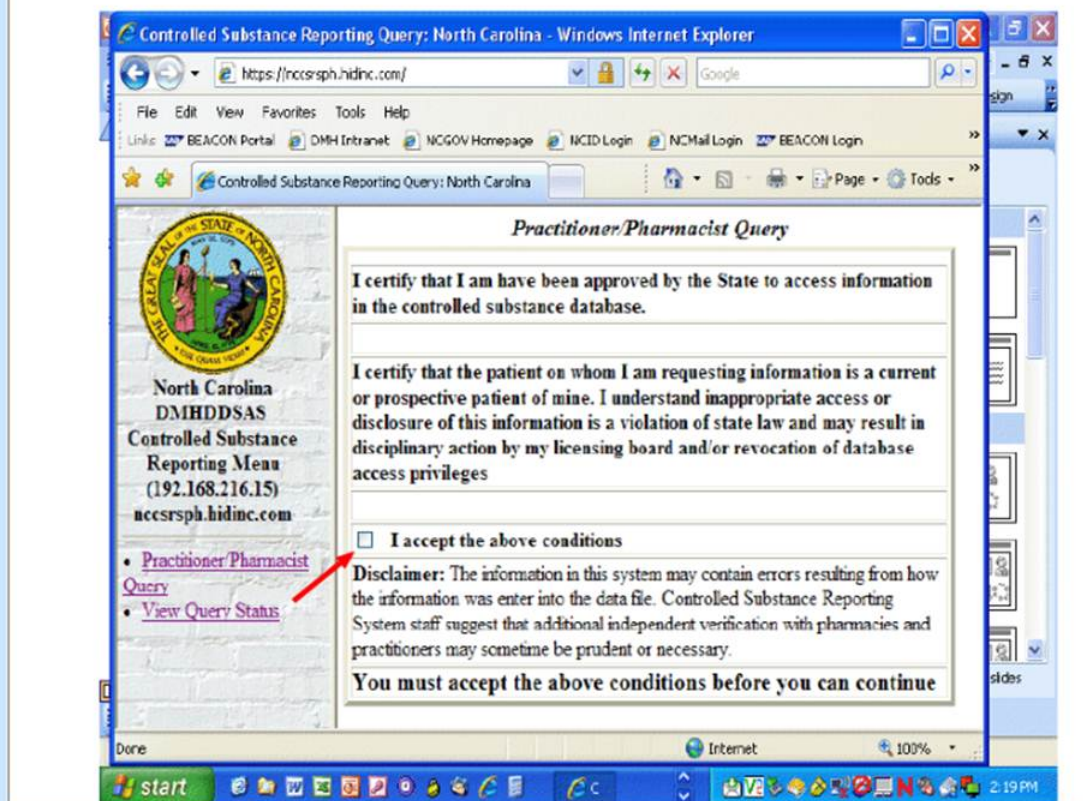


Figure 6

4. Plug in the patients last name, first name, DOB, primary address and time frame of interest.

Practitioner/Pharmacist Query

Report Format: Recipient Query

Name Selection

Demographic Focus

Recipient

Begins with

Sounds like

Fastest. Last Name = and First Name Begins

*Last Name: dummy

*First Name: d

Sex: All

*Target DOB: mm/dd

Within: Exact

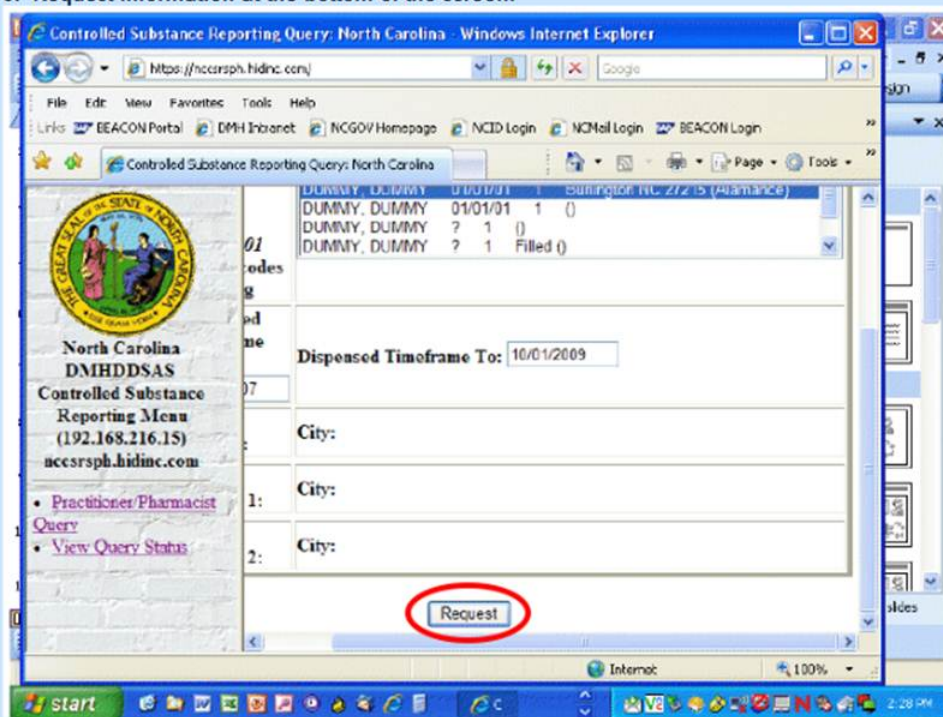
Primary Address:

City:

5. Request information at the bottom of the screen

Figure 7

5. Request information at the bottom of the screen.



6. Await your query report.

Figure 8

6. Await your query report.


Controlled Substance Reporting Query: North Carolina - Windows Internet Explorer

https://nccsrph.hidinc.com/

File Edit View Favorites Tools Help

Links BEACON Portal DMH Intranet NCGOV Homepage NCID Login NCMail Login BEACON Login

Controlled Substance Reporting Query: North Carolina


 North Carolina
 DMHDDSAS
 Controlled Substance
 Reporting Menu
 (192.168.216.15)
 nccsrph.hidinc.com
 • [Practitioner/Pharmacist Query](#)
 • [View Query Status](#)

Date Dispensed	Date Prescribed	Quantity Dispensed	Days of Supply	Authorized Refills	NDC	Drug
01/09/08	01/09/08	50	12	0	00591034905	HYDROCODONE APAP 5- TABLET
07/03/07	07/03/07	10	10	0	54092055310	DAYTRON MG/ 9 HI
03/16/09	03/16/09	60	20	0	00228202996	ALPRAZOLAM 0.5 MG T
12/30/08	12/29/08	60	30	0	00024552131	AMBIEN MG TAB

Done Internet 100%

start

2:29 PM

Figure 9

NC Controlled Substances Reporting System



What When and Why Registration Implementation Query Confrontation

Confronting the Patient

The practitioner should sit down with the patient and discuss the findings. He/she may suggest a referral to a substance abuse program or a pain specialist. Recent changes to the original legislation (August 2009) enable prescribers to call other prescribers identified on the CSRS. Behavioral health specialists need to continue to follow other applicable patient consent laws. Practitioners should not call law enforcement unless the patient has forged a prescription.



Figure 11