

Identifying High and Low Risk Practice Areas and Drugs of Choice of Chemically Dependent Nurses

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2010

Abstract

The American Nurses Association estimates that approximately 6 - 8% of nurses suffer from a chemical dependency to the degree that skill judgment is impaired (Trinkoff, Zhou, Storr, & Soeken, 2000). In order to counsel nurses at risk for substance use, abuse, or relapse, we need to identify high and low risk practice areas and drugs of choice. We know on the national level that nurses who practice in oncology, psychiatry, and emergency medicine are at high risk for chemical dependency (Trinkoff & Storr, 1998); however, no study to date has looked at these specific relationships for the state of Indiana. The purpose of this study was to determine if state trends were similar to national trends. Findings will be used to develop educational materials for career counseling. Working in collaboration with the Indiana State Board of Nursing (ISBN), the research team analyzed an existing data set of the Indiana State Nurses Assistance Program (ISNAP). There are approximately 110,000 nurses in the state of Indiana and fewer than 1% are enrolled in the ISNAP program. The dataset contained de-identified information related to demographic characteristics, practice characteristics, substance(s), treatment, and outcomes. The dataset included 1,343 nurses consisting of 526 active participants and 658 past participants. The majority of the sample was female (88.7%) and classified as a registered nurse (69.4%). This was consistent with findings of the Bureau of Labor Statistics, which reported the number of registered male nurses was 5.6% at the end of 2005 and 8.3% at the end of 2008 for the state of Indiana. Primary drugs of choice were opiates followed by alcohol.

Introduction

Chemical abuse and dependency is a problem among the American population. It affects people's health, jobs, and lives. Chemical abuse is defined as overindulgence in an addictive substance, and chemical dependency is defined as a physical and psychological habituation to a mood- or mind-altering drug such as alcohol or cocaine (American Heritage dictionary). The term chemical and substance are used synonymously and include alcohol and drugs. Chemical dependency is a serious problem among healthcare professionals because it can interfere with the quality of patient care and violates professional standards. The American Nurses Association (ANA) Code of Ethics states, "The nurse promotes, advocates, and strives to protect the health,

safety, and rights of the patient” (ANA, 2010). Impaired nurses are a risk to their patients and colleagues. Protecting the public is so important that the ANA further encourages nurses to monitor one another, stating, “In a situation where a nurse suspects another’s practice may be impaired, the nurse’s duty is to take action designed both to protect patients and to assure that the impaired individual receives assistance in regaining optimal functioning” (ANA, 2010). Thus, early identification and intervention is paramount in the nursing profession.

There is very little research regarding high and low risk practice areas and drugs of choice for nurses on a national level, and no research was found in this area that specifically examined nurses in the state of Indiana. Therefore, the purpose of this study was to identify high and low risk practice areas and drugs of choice on a state level. Characteristics of nurses who are enrolled in the Indiana State Nurses Assistance Program (ISNAP) and practicing in the identified high risk areas were explored. Data were compared to the information currently available regarding trends on a national level. Based on these study findings, recommendations were to develop educational material for early detection and intervention for nurses at risk for substance use and abuse.

Literature Review

The American Nurses Association has estimated that 6%-8% of nurses suffer from the disease of substance abuse to the degree that skilled judgment is impaired (Trinkoff & Storr, 1998). Literature suggests the prevalence in healthcare professionals is similar to that of the general population (Trinkoff & Storr, 1998; Shaw et al., 2004). A study by Blazer and Mansfield (1995) compared the reported substance use of employed female nurses with females in traditional clerical work and females in non-traditional roles. Findings suggested the use of alcohol in the non-traditional group was similar to employed female nurses. However, the use of non-prescription drug use in nurses was much higher than in the traditional group. Approximately 83% of the nurses showed moderate use of a non-prescription drug in comparison with 32% of the traditional workers and 34% of the non-traditional workers. One exception was found. Cigarette use for non-traditional workers was more than double that of the nurses.

Dunn listed five behaviors an employed nurse user is more likely to exhibit than a non-user. These behaviors included changing jobs frequently, missing two or more days of work in the past month, resigning voluntarily from a job in the past year, termination by an employer in the past year, and involvement in a workplace accident in the past year (2005). A secondary analysis by Clark (1988) identified the following risk factors for substance abuse: role strain, problems of daily living, enabling by peers and management, attitudes towards drugs and drug use, lack of education regarding chemical dependency, lack of controls, and physician practices. One study examining high risk practice settings was conducted by Trinkoff and Storr (1998). Their findings suggested that emergency department nurses were 3.5 times more likely to use marijuana or cocaine than nurses in women’s health, pediatrics, or general practice. Additionally, oncology and administrative nurses were twice as likely as nurses in other areas to binge drink, and psychiatric/mental health nurses were more likely to smoke. These authors found no significant difference among specialties with respect to prescription drug use. Their findings indicated that overall, oncology and psychiatric nurses had the highest rates of substance use, whereas pediatric and women’s health nurses had the lowest rates of substance use.

In another study conducted by Shaw et al. (2004), at least 8.2% of nurses had a single substance use disorder and 6.5% used prescription opiates. Moreover, they found that nurses

were more likely than doctors to use prescription opiates or smoke tobacco. Smith et al. (1989) reported that 6% of nurses used alcohol at least once a day and 21.7% used alcohol once or twice per week. The study was limited as it only reported the frequency of use and did not mention the consumption amount.

In Scotland, Plant et al. (1992) conducted a study on stress, alcohol, tobacco, and illicit drug use with a sample of 600 nurses from different specialties, including psychiatric, medical, and surgical units. Plant explored the effect of stress among nurses with substance use disorders. Their study concluded that medical-surgical nurses had the highest level of stress and psychiatric nurses the lowest. Identified stressors included workload, inadequate preparation, and uncertainty concerning treatment. The study results showed that overall stress levels were significantly associated with alcohol consumption. No obvious relationship was found with tobacco or illicit drug usage (Plant et al., 1992). A study by Collins et al. (1998) sampled 1,951 female nurses from western New York. Most nurses were employed in an urban setting, between ages 25 and 44, married, and with children. The majority of nurses held a diploma (41%), 34% were prepared at the associate degree level, and 21% had bachelor's degrees. The majority of the nurses worked in an urban setting. Fifty-nine percent of the sample worked in a hospital setting, 14% in a nursing home, and 8% in a community or public health agency. The majority of the nurses worked full-time day shift. The sample consisted of 390 medical-surgical nurses, 290 geriatric nurses, 265 peds/OB/nursery nurses, 157 ICU nurses, and 150 community home health care nurses. Respondents were surveyed about their current (within the past month) and lifetime use of illicit, prescription, and over-the-counter medications. Alcohol was the highest drug chosen for lifetime use, and caffeine was the highest for current use. Marijuana was the highest illicit drug chosen for lifetime use, while opiates were the highest for current use. Data were compared to data from the general population, which were gathered from the National Household Survey on Drug Abuse by the Office of Applied Science for the Substance Abuse and Mental Health Services Administration (Collins et al., 1998). The researchers found nurses reported higher rates of alcohol, similar rates of tobacco use, and lower rates of marijuana and cocaine use than the general population.

A study was conducted by Pullen and Green (1997) using a small scale needs assessment administered before and after a chemical dependency workshop. They concluded that nurses don't have sufficient knowledge of substance use disorders with respect to risk factors and steps for intervention. They recommended education as a major intervention strategy for addressing impaired nurses and treatment. To further explore high and low risk practice areas and drugs of choice in impaired nurses, we completed a secondary analysis of ISNAP data.

Methods

The ISNAP dataset contained de-identified information related to demographic characteristics, practice characteristics, substance(s), treatment, and outcomes. All quantitative data had been collected by ISNAP and converted to an SPSS data file. Data were analyzed using statistical software SPSS 16.0 for Windows. Several analyses were performed to explore the data. Descriptive statistics were conducted to describe the sample.

Results

The dataset provided by ISNAP included 1,343 nurses consisting of 526 active participants, 658 past participants, and 159 in other categories. The majority of the sample was female (88.7%), 69.4% were classified Registered Nurses (RNs), 29.9% were Licensed Practical

Nurses (LPNs), and .6% were Advanced Practice Nurses (APNs). Only 38.8% of the nurses were employed full time; however, 59.2% had missing data on this variable. The remaining 2.0% include unemployed, employed part-time in nursing, full-time and part-time not nursing, and others. Congruent with Trinkoff and Storr (1998), the five practice areas with the highest frequency of nurses in ISNAP were (from highest to lowest): Geriatric, Medical/ Surgical, Emergency Department, Home/ Public, and Critical care. The primary diagnoses were consistent with the drugs of choice. Table 1 indicates the primary diagnoses of ISNAP participants. For the 500 subjects who reported drug(s) of choice, the primary drug was opiates, with alcohol as the second choice. Opiates were being used by 45.6% of respondents, and alcohol was used by 41% of respondents (Table 2). The three employment settings with the highest rate of impaired nurses in the program were (from highest to lowest): hospital (19%), nursing home (12.8%), and outpatient clinic (2.5%); however, 58.8% of participants had missing data for this variable.

Table 1: Primary diagnosis

Substance diagnosis	Frequency	Percentage
Opioid dependence	292	21.7%
Opioid abuse	68	5.1%
Alcohol dependence	150	11.2%
Other ⁺	274	20.3%
Missing data*	326	24.3%
Total	1343	100%

Other⁺: marijuana, benzodiazepine, amphetamine, cannabinoid, bi-polar disorder, sedative dependence, depression, poly substance dependence, mood disorder, obsessive-compulsive disorder, acute stress disorder, panic disorder, no substance diagnosis, and other diagnosis.

Missing data*: patients not reporting or data missing from the system due to other reasons.

Table1.2 Primary Drugs of Choice (n= 500)

Substance	Frequency	Percent
Opiates	228	45.6%
Alcohol	205	41.0%
Marijuana	23	4.6%
Cocaine	15	3.0%

Amphetamines	10	2.0%
Benzodiazepines	9	1.8%
Methamphetamine	4	0.8%
Cannabinoids	1	0.2%
Other	5	1.0%
Total	500	100.0%

Discussion and Recommendations

There are approximately 110,000 nurses in the state of Indiana and fewer than 1% are enrolled in the ISNAP program. If state trends are similar to national trends, then it could be presumed that approximately 6600 to 8800 nurses are practicing impaired and not receiving treatment. Future studies must be conducted to accurately document the prevalence of substance use disorders in nurses and explore appropriate interventions for increasing identification, enrollment, and treatment. Moreover, integration of content in schools and institutions aimed at educating nurses about SUDs, including high risk practice settings, are needed. Supporting nurses with substance use disorders in treatment and recovery is paramount to promoting the well-being of the nurse and ensuring public safety.

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