

Identifying drug-seeking behaviors in the emergency department

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IDENTIFYING DRUG-SEEKING BEHAVIORS IN
THE EMERGENCY DEPARTMENT

by

RANDI M. BUSH-BURMAN

A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Nursing
in the College of Nursing
and in The Burnett Honors College
at the University of Central Florida
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ABSTRACT

Pain is the leading cause of Emergency Department (ED) visits making it one of the primary concerns of the emergency medical field. The experience of pain is subjective and unique to every individual making it difficult to effectively manage. As a result, the subjective nature of pain is also commonly associated with drug-seekers often claiming to have pain simply to receive narcotics to support their addiction. There have been numerous studies completed to determine how to effectively recognize drug-seeking. This integrative literature review will identify the common behaviors that have been seen as indicators of drug-seeking in the ED. The evidence collected from articles published between 2001 and 2011 examined the use of assessment tools, drug screening, and prescription monitoring programs for distinguishing drug-seekers. The evidence did not identify a specific evaluation tool used to recognize drug-seekers; however, the research did suggest that using these techniques can help to identify drug-seeking behavior allowing emergency medical staff to effectively manage pain in the ED.

DEDICATIONS

To my wonderful friends and family who encouraged me throughout my academic career and pushed me to excel in the nursing program.

To Mike, for all of the little and not so little things you have done to help me along the way.

For my little Roxy dog and all of the endless nights you spent keeping me company while I worked.

And to all of the incredible people in my life that have had an impact on my long academic road.

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INTRODUCTION

The most commonly reported symptom upon arrival in Emergency Departments (ED) is pain, accounting for approximately 78% of all ED visits (Todd, Ducharme, Choiniere, Crandall, & Fosnocht, 2007). Pain associated with an injury accounts for less than one-third of ED visits. Clients most commonly complain of pain in the back, neck, abdomen, head, chest, or from an unidentifiable source (Todd et al., 2007). Pain is initially classified as acute or chronic. Acute pain occurs suddenly, often as the result of injury or illness; whereas, chronic pain persists over a longer period of time. It has been estimated that one in three Americans will eventually suffer from chronic pain due to illness or injury (Thomas, 2007). Over 50 million Americans across the country report chronic back pain, migraine headaches, or arthritis pain on a regular basis making pain a major medical problem (Thomas, 2007).

One of the common goals in the ED is to effectively manage pain symptoms in order to alleviate the discomfort experienced by clients (Todd, et al., 2007). Since the implementation of the Emergency Medical Treatment and Active Labor Act (EMTALA), EDs have been required by law to provide care if any emergency medical condition (EMC) is present including severe pain with an unknown source. Severe pain is considered an EMC and must be effectively managed in the ED to alleviate symptoms. Regulations set forth by The Joint Commission on Accreditation of Healthcare Organization (JCAHO) state that the hospital is responsible for managing pain symptoms, and if the hospital is no longer able to meet the needs of the client, the client must receive a referral to a pain management specialist (Dorsey, Malone, & Simopoulos, 2009).

Problem

Pain is often a symptom of an illness or disease that cannot be directly observed by health care providers, therefore possibly leading to a less sympathetic environment (Wilsey, Fishman, Ogden, Tsodikov, & Bertakis, 2008b). Clinical manifestations of pain present uniquely in every individual depending on a variety of factors including culture, age, gender, and socioeconomic status. Clients frequently complain of pain symptoms in areas where objectively assessing an etiology is difficult, such as headache, back and neck pain, or abdominal pain (Todd, et al., 2007).

If pain is a result of an unidentifiable source, health care providers manage pain symptoms with little objective data making it difficult for some health care providers to remain compassionate for clients leading to inadequate pain management. Unsatisfactory pain management occurs for a variety of reasons including knowledge deficit regarding chronic pain management and ethical dilemmas (Pines & Hollander, 2008). Unfortunately, a common reason for inadequate pain management is an unwillingness to believe the client's report of pain (Silka, Roth, Moreno, Merrill, & Geiderman, 2004). Improper pain management causes unnecessary suffering and results in more than \$100 billion in preventable medical expenses from longer hospital stays, re-hospitalizations, and recurrent ED visits (Dorsey, Malone, & Simopoulos, 2009). One of the most prevalent challenges in providing effective pain management in the ED is the inability to differentiate drug-seekers from legitimate clients experiencing pain (Hansen, 2005). A contributing factor to this problem is that screening tools to distinguish drug-seekers from clients in pain are not widely used (Dorsey, Malone, & Simopoulos, 2009). This failure to

separate drug-seekers from clients with legitimate pain means clients in pain may be mistaken for drug-seekers while drug-seekers may be prescribed narcotics.

A recent article published in the Emergency Department Legal Letter (2009) states that for every 75,000 clients seen in an ED every year 5,764 of them are drug-seekers. This implies that approximately one in every 13 clients seen in the ED is a drug abuser seeking prescription pain medication (Dorsey, Malone, & Simopoulos, 2009). As a result of widespread narcotic abuse, medical professionals have developed a defensive approach in order to comply with regulations and avoid law suits. Medical professionals with a defensive approach to pain management will medicate all clients suffering from pain which may include drug-seekers (Baehren, Marco, Droz, Sinha, & Callan, 2010).

Narcotics are commonly used to treat severe pain from both chronic and acute sources and may elicit a euphoric sensation while controlling pain effectively (Wilsey, et al., 2008b). As a result of the rapid-onset of narcotics in the central nervous system, they are also associated with a high incidence of addictive properties after prolonged use (Hansen, 2005). Narcotics are extremely effective for minimizing severe pain; however, due to the highly addictive properties, medical providers are often reluctant to use them consistently. When narcotics are used to suppress the symptoms of pain, addiction occurs in a small fraction of clients. These clients may then seek out narcotics even when there is no longer a physical need for pain relief (Braden, Russo, Fan, Edlund, Martin, & DeVries, 2010). Clients will often mimic or feign signs and symptoms associated with their previous condition in an attempt to receive narcotics to support their addiction (Chan & Winegard, 2007). The lack of adequate evidenced-based screening tools

to identify drug-seeking behavior, in combination with drug-seeking in EDs, has been directly associated with ineffective emergency pain management (Wilsey, et al., 2008b).

Purpose

The purpose of this integrative literature review is to identify common drug-seeking behaviors exhibited by clients in EDs, in an attempt to minimize health care provider uncertainties when managing pain symptoms in clients presenting to the ED complaining of acute and/or chronic pain.

Method

An extensive literature review was completed to identify current assessment tools that are being used to identify drug-seeking behaviors, as well as what drug seeking behaviors have already been established. The current research available was retrieved from the following databases: Cochrane Database of Systematic Reviews, Cumulative Index to Nursing and Allied Literature (CINAHL), PubMed, and PsycINFO. Studies were limited to peer-reviewed research published in English between January, 2001 and June, 2011. The comprehensive literature search was narrowed using keywords including: drug seekers, emergency department, emergency room, pain, pain control, pain management, prescription monitoring and substance abusers.

In order to be included in this review, articles had to meet the following criteria: participants were 18 years and older admitted to the emergency department complaining of pain; reporting identifiable behaviors exhibited by drug-seekers; address misconceptions associated with non-cancer chronic pain; or be directly related to the key terms used to complete the search. Furthermore, articles examining the use of pain scales in the ED as well as articles that contained

research about the use of drug-seeking evaluations were reviewed. Articles were excluded if pain was secondary to a disease process or used animals as their experimental sample.

Several studies were included to provide a basic knowledge of drug-seeking behaviors most commonly seen in the ED. Multiple studies were used to provide background and introductory information to establish the defining characteristics of drug-seekers, substance abusers, and common behaviors associated with drug-seeking in the ED. For this integrative review of research, twelve total studies met all criteria to identify common drug-seeking behaviors associated with substance abuse. Of those studies, ten were quasi-experimental and used convenience sampling; whereas the additional two studies were experimental and used randomized sampling.

Table 1: Literature Search Strategy

Database	Date of Search	Search Strategy	Number of Articles Found	Number of Searched Relevant Articles
Cochrane	11/03/2010	“Pain Management” or “Pain Control” and “Drug Seek*” or “Drug Abuse*”	116	1
EBSCO CINAHL	11/01/10	“Emergency Department” and “Pain”	288	11
		“Emergency Room” and “Pain”	28	4
		“Pain” and “Drug Seek*”	30	2
PubMed	11/03/10	“Emergency Department and “Pain” and “Drug Seek*”	42	5
	11/01/10	“Pain” and “Drug Seek*”	110	6
		“Emergency Department” and Pain Management” Or “Pain Control” And “Drug Seek*”	288	13
	11/06/10	“Emergency Department” and “Substance Abuse*” Or “Drug Seek*”	307	5
	01/05/11	“Prescription Monitor*” and “Substance Abuse*” or “Drug Seek*”	304	3
PsycINFO	11/07/10	“Pain Management” or “Pain Control”	18	3

BACKGROUND

Prescription opioid abuse is the intentional misuse of prescription opioids in a manner that is not consistent with the way in which the prescribed medication was intended to be used. Prescription medication is becoming a more commonly abused substance which has led to an increase in the number of ED visits related to nonmedical use of opioids (White, Birnbaum, Schiller, Tang, & Katz, 2009). As a result of the increase in prescription substance abuse, it is necessary to identify clients that are drug-seeking. The most common drug-seeking behaviors have been associated with complaining of pain that is not validated by diagnostic evidence, indicating a medication of preference or stating allergies to specific medication(s), visiting multiple EDs, and having a mental health comorbidity in conjunction with prescription abuse (Schuckman, Hazelett, Powell, & Steer, 2008; Wilsey, Fishman, Ogden, Tsodikov, & Bertakis, 2008a; Wilsey et al., 2008b). In addition to identifying common behaviors, it is also important for ED care providers to recognize that stereotyping of drug-seekers in the ED minimizes effective pain management (Kelleher & Cotter, 2009).

Pain Source

Drug-seekers will often complain of back pain, neck pain, dental pain, or migraine headaches because these sources of pain are difficult to validate with diagnostic procedures commonly used in the ED. Due to high client ratios in the ED it has been shown to be more efficient to refer clients to their primary care provider for diagnostic procedures such as computerized axial tomography scans (CT scan), magnetic resonance imaging (MRI), and x-ray images unless there is a traumatic event or acute onset of back pain, neck pain, dental pain, or migraine headaches (Thomas, 2007). With the chance of practitioners having difficulty in

definitively identifying the source of pain related to these complaints, drug-seekers have learned that reporting these forms of pain in the ED warrant treatment with strong pain relieving medications. In many cases clients with chronic back pain, neck pain, or migraine headaches will not have diagnostic evidence to support their pain symptoms which is why drug-seekers often mimic these conditions to receive strong narcotics in the ED (White, et al., 2009).

The objective signs and symptoms of chronic pain include, but are not limited to: agitation, facial grimacing, elevated blood pressure, guarding, and restlessness. However, clients with true chronic pain can adapt to pain over time and may show very minimal objective signs of pain making identifying drug-seekers from clients with chronic pain even more difficult (Hawkins, Smeeks, & Hamel, 2008).

Medication Selecting

A common behavior associated with drug-seeking is when clients will identify a medication of choice or state that they have allergy to a specific medication which leaves the physician with no other alternative but to prescribe a specific class of medication (Schuckman, Hazelett, Powell, & Steer, 2008). When a client states they have an allergy to a medication, that medication must at all cost be avoided to prevent a dangerous allergic reaction. As such, drug-seekers use this to their advantage to obtain their drug of choice. The most commonly reported allergies associated with drug-seekers include: morphine, codeine, and non-steroidal anti-inflammatory drugs (NSAIDs). Whereas, the most common substances requested by clients suspected of drug-seeking consist of narcotics and benzodiazepines (McNabb, Foot, Ting, Breeze, & Stickley, 2006).

Hospital Shopping

Drug-seekers will often abuse the system by hospital shopping. The term “hospital shopping” is used to describe the method that drug-seekers use to obtain medications from several sources by going to multiple medical facilities within their surrounding area (Schuckman, et al., 2008). As a way to limit the likelihood of being categorized as a drug abuser, individuals will visit multiple hospitals to obtain narcotics and decrease the number of visits on record at each facility. Visiting multiple facilities is done in an effort to make it appear as though they visit the ED on rare occasions, when in reality they are frequently seen in an ED. This is a technique that mimics clients suffering from break through pain. Break through pain is a sudden increase in chronic pain that cannot be treated with a normal pain management regimen. Chronic pain clients will often seek care at the hospital in their area which they choose based on comfort, familiarity, and personal standards of care. Drug-seekers will use this knowledge to their advantage to make it appear as though they are a chronic pain client with break through pain (Baehren et al., 2009).

Mental Health

Several research studies show that psychiatric illnesses are commonly seen in drug-seekers. Over 50% of the mentally ill suffer from a history of substance abuse including the use of prescription medications (Wilsey, et al., 2008b). It is unclear what the ratio of drug-seekers with a mental illness is; however, recent studies have shown that there is a high prevalence in drug-seekers with mental health comorbidities. In a study conducted by Barth Wilsey and his associates, 113 participants underwent an extensive interview which showed that participants suffering from anxiety, depression, personality disorders, and post traumatic stress disorder had a

greater propensity for abusing prescription medications. The research shows that clients with a history of mental illness should be evaluated for drug-seeking and vice versa (Wilsey, et al., 2008b).

Stereotyping

One barrier to properly identifying substance abuse in the ED is practitioner stereotyping of clients as drug-seekers (Kelleher & Cotter, 2009). It is possible for ED staff to become impartial to clients whom they suspect of drug-seeking. Most ED care providers also recognize commonalities in clients whom they suspect of drug-seeking which has led to biases not as a negative correlation but as a result of experience (Kelleher & Cotter, 2009). It is important for the ED staff to recognize profiling as an issue and how it can hinder the care provided.

ED staff work in a state of constant stress and client lives are frequently at risk. Clients presenting with pain complaints without objective assessment etiology are at risk for being stereotyped as a drug-seeker. When this occurs, it may lead to improper care with up to 8% of clients suffering from true pain being categorized as drug-seekers (Dorsey, Malone, & Simopoulos, 2009). It is important that ED providers recognize the possibility of stereotyping and treat clients properly.

Summary

The research shows evidence that there are identifiable drug-seeking behaviors in the ED (Dorsey, Malone, & Simopoulos, 2009). Taking into consideration the negative impact that drug-seeking has on the medical field, such as: drug-seekers take advantage of the medical system, use vital resources, and make treatment for clients with chronic pain more difficult, it is important to identify drug-seekers and provide the appropriate treatment to decrease the effects that drug-

seekers have on the emergency medical field. The research indicates that behaviors associated with drug-seeking are common in the majority of drug-seekers which shows that there are definitive ways to identify this problem and reduce prescription drug abuse in the ED (Butler et al., 2007). It is common practice to provide the opportunity for pain medication for all clients complaining of pain even when there is no diagnostic evidence to support their complaint. This is because it is difficult to make an absolute conclusion when drug-seeking is suspected and if a client presents with pain symptoms it is challenging to deny pain medication. The results from the research show that there is evidence that specific behaviors associated with drug-seeking can be objectively identified (White, et al., 2009).

FINDINGS

Drug-seeking is not a recent phenomenon but is an ever present obstacle seen in EDs throughout the world. Prescription drugs have become the second most common abused drug in the United States which as lead to an influx in drug-seekers in the ED (Wilsey, Fishman, Ogden, Tsodikov, & Bertakis, 2008a). There has not yet been enough research to identify an evidence-based and effective solution for managing drug-seekers in the ED. However, the included research shows a variety of ways to identify drug-seekers. In an effort to reduce future prescription drug abuse, research to identify drug-seeking behavior is vital. In this integrative literature review twelve research articles were analyzed to identify the most common drug-seeking behaviors and the potential methods for managing drug-seekers. The included articles reported the following approaches to help identify drug-seekers: proper assessment, drug screening, and prescription monitoring systems.

Assessment

Eight articles indicated that drug-seeking behavior can frequently be identified through the use of proper assessment tools and standardized client assessment. The assessment tools utilized demographic information with various scales and surveys constructed specifically to identify drug abusers. The combination of; exceptional assessment skills, evidenced based evaluation tools, common behaviors, signs and symptoms of substance abuse and objective information can help identify drug-seekers and offer an opportunity to provide appropriate care.

An Australian study showed a correlation between drug-seeking and identifying a drug of choice or reporting an allergy to pain medications by using a convenience sample of 37 participants. A questionnaire was developed that focused on nine subcategories including: client

demographics, triage category, chief complaint, psychiatric disorder, request for prescription, past medical history and record of visits, any previously suspected drug-seeking, allergies to medications, medications sought by clients, medication administered in the ED, diagnostic procedures implemented, and disposition details (Schuckman, et al., 2008).

The questionnaire was filled out by the physician when he or she suspected a client of drug-seeking. The results showed 11% of the participants reported an allergy to morphine, codeine, and non-steroidal anti-inflammatory drugs (NSAIDs). Furthermore, nearly 90% of the clients suspected of drug-seeking indicated a drug of choice. Out of the 37 clients suspected of drug-seeking, 81% requested a narcotic drug and 8% requested a benzodiazepine. Over half of the clients (62%) reported a primary complaint of abdominal, back, chest, head, or neck pain. Over one-third (38%) of the subjects had been seen multiple times in the ED; whereas, only 2% of the subjects were diagnosed with a new organic disorder (McNabb, et al., 2006).

The data obtained from this study supported the theory that drug-seekers are likely to report a drug of choice and/or state allergies to medication in order to obtain a drug of choice, and visit several EDs on multiple occasions in order to support their addiction. This research also shows that ED staff has a tendency to categorize psychiatric clients as drug-seekers and psychiatric screenings should be completed when drug-seeking is suspected. Overall, the findings in this study clearly provided the information that the researchers intended to find. The aim of this study was to identify commonalities among clinical presentations where physicians suspect drug-seeking behaviors (McNabb, et al., 2006).

This study was limited by a small sample size and the use of only one facility located in a large metropolitan area. In order for this research to be utilized in a developing a way to screen

clients suspected of drug-seeking in the ED a larger study will need to be conducted in multiply ED locations and participants should be obtained through randomized sampling. This preliminary study provides a base for developing a larger scale experiment that will help to define the characteristics of a tool that can be utilized in the ED to screen clients suspected of drug-seeking (McNabb, et al., 2006).

In a much larger study, de-identified medical records of 632,000 privately insured residents were analyzed for commonalities among substance abusers. A client was considered a substance abuser based on the number of opioid prescriptions issued within one year (White, et al., 2009). The results indicated that those suspected of prescription opioid abuse were predominately male between 25 and 34 years of age. Behavioral characteristics associated with abuse were filling prescriptions at two or more pharmacies, having one or more early refills, and demonstrating two or more consecutive months of dose escalation. This study shows the feasibility in developing an algorithm that can be utilized to identify common behaviors and biographical information among drug abusers in order to incorporate that information into developing a screening tool to identify drug-seekers in the ED (White, et al., 2009). It also shows how insurance companies may be able to partner with ED providers to help identify and prevent prescription opioid abuse.

A study was completed to develop a tool to identify substance abusers called the Current Opioid Misuse Measurement (COMM, 2009) scale. The COMM was developed by a team of 26 pain management specialists, addiction experts, and primary care providers dedicated to constructing a clinical tool that could be used to screen the chronic pain population for prescription drug abuse. The COMM is a 42 question assessment tool comprised of statements

that were developed through intergrading six subcategories, including: signs and symptoms of misuse, emotional problems or psychiatric issues, poor response to medication, evidence of lying and drug use, medication misuse and noncompliance, and appointment patterns. The COMM focused on uncovering the truth by administering a subjective questionnaire with statements to be rated on a scale of 0-4 by the suspected prescription abuser (Butler, et al., 2007).

The first trial of 200 subjects participated in a week long study in which the results of the COMM were compared to the results of a urinalysis. Initial results showed the instrument was helpful in identifying chronic pain clients with a prescription misuse problem. Further analysis identified 40 items as being relevant and 17 as being more likely to identify a client currently abusing prescription medications. Although the COMM may be useful in the ED setting, researchers constructed this tool to be used for the chronic pain population with a current pain management regimen (Butler, et al., 2007).

A later analysis of the COMM was completed by a group of researchers working to establish an assessment tool that would help to identify prescription drug abusers not currently under supervision of a primary care physician. A team of seven researchers affiliated with the Clinical Addiction Research and Education (CARE) Unit of Boston Medical Center and Boston University School of Medicine approached 2,194 clients in the safety-net hospitals. The participants observed in this study had to meet the following inclusion criteria: 18–60 years of age, English speaking, have suffered from chronic pain for at least the past three months, reported use of analgesic medication within the past month, and had at least one prescription for an opioid in the year prior to the study. Out of the 2,194 clients interviewed only 238 met the inclusion criteria and agreed to participate in the study (Meltzer et al., 2010).

Their goal was to identify participants suffering from a substance abuse disorder by administering a shorter version of the COMM using the 17 questions determined to be more effective. During the interview portion of the study, each participant was administered the COMM in which the following key variables were examined: sociodemographic factors, income, level of education, marital status, health insurance, presence of a major depressive disorder, family history of substance abuse disorder (SUD), and current use of tobacco products. The results indicated that 11% of the participants currently had prescription drug abuse disorder (PDD) and 7% of the participants currently had substance use disorder (SUD). Although the remaining 8% had no disorder, 24% of these participants previously had PDD or SUD (Meltzer, et al., 2010).

In order to support the reliability of the COMM the results were subjected to a parametric analysis of variance (ANOVA) and nonparametric analyses (Kruskal–Wallis) which indicated the same significant results. Participants with PDD were more likely to be female, African-American, have a lower level of education, have some form of major depressive disorder, use tobacco products, have alcohol dependence, and be on some form of disability (Meltzer, et al., 2010).

Results of this study support that clients with PDD and/or SUD can be identified using a shorter assessment tool. The shorter COMM (17 questions) may be more appropriate for use in settings with great time constraints such as the ED. The instrument, however, was only evaluated in a primary care setting. Although participants were approached in a hospital setting they were later interviewed in a primary care setting by physicians, master's degree-level professionals, college graduates, and college students who underwent over 60 hours of interview training

(Meltzer, et al., 2010). In order to make this research more applicable for emergency care professionals, additional research would need to be conducted solely in an ED setting.

A separate randomized trial reported similar results by interviewing clients with chronic back and neck pain (Jamison et al., 2010). This study was conducted in an effort to identify potential for opioid misuse by six researchers affiliated with the Pain Management Center and Harvard Medical School. The sample consisted of participants that met the following inclusion criteria: suffering from chronic back or neck pain, currently using prescribed long-acting opioids for pain for more than six months, show no signs of medication misuse, have an average score of 4 or greater on the 0-10 pain scale, English speaking, and have a risk for substance abuse indicated by a score of six or higher on the Screener for Opioid Abuse for Pain Patients (SOAPP). A total of 62 participants were recruited to take part in a six month trial and received a comprehensive physical and history exam by a physician prior to the study. The physician reviewed their pain management therapy which all participants were required to adhere to throughout the study. Participants were subdivided into three randomized groups based on their SOAPP score. The three groups were placed into a high-risk control group, a high-risk experimental group, or a low-risk experimental group.

The high risk and low risk experimental groups each had to complete a monthly electronic diary; whereas, the high risk control group was required to complete a monthly electronic diary, urinalysis, and attend compliance counseling. Each group was required to complete a pre-treatment and post treatment assessment including completing the following questionnaires: The Brief Pain Inventory (BPI), The Hospital Anxiety and Depression Scale (HADS), and The Pain Disability Index (PDI). Surprisingly the HADS assessment showed

similar scores for all three groups indicating that anxiety and depression do not significantly affect the risk for substance abuse. However, the BPI and the PDI assessments showed a significant difference among the three groups, which was a correlation between a greater severity of debilitating pain and an increased risk of developing substance misuse. The high-risk control group was 50% more likely to abuse substances than the high-risk and low-risk experimental groups (Jamison, et al., 2010).

The Prescription Drug Use Questionnaire (PDUQ) is among the most well-developed substance abuse evaluation method for pain clients at this time (Jamison, et al., 2010; Meltzer, et al., 2010). It is comprised of 42 questions and is to be administered by a clinician to the client. The PDUQ is utilized to assess the client's pain condition, opioid use patterns, social and family factors, family history of pain and substance abuse, and psychiatric history. According to the guidelines, a score greater than 11 on the PDUQ is considered a positive indicator for the Drug Misuse Index. The Addiction Behaviors Checklist (ABC) is a 20 item assessment tool that was designed to identify key behaviors that are associated with addiction to prescription opioid medications commonly seen in the chronic pain populations. The assessment is comprised of "yes" and "no" statements and completed by a physician (i.e. the client ran out of prescription medication before indicated by the dosage); therefore, the assessment is focused on objective information. If a client scores a three or higher on the ABC the client is considered to be displaying inappropriate prescription drug use. The Drug Misuse Index (DMI) is determined by a positive score on the PDUQ, the ABC, and the urine toxicology results (Jamison, et al., 2010).

The results of this study showed 32% of the participants scored an eleven or higher on the PDUQ; whereas, only 16% of the participants scored a three or higher on the ABC. Urine

toxicology screenings showed that 19% of the participants had used marijuana or additional opioids that were not prescribed. Overall, 39% of the participants were positive for the DMI which was reflected by their PDUQ answers, ABC evaluation, and a positive urinalysis. Almost 75% of the high-risk experimental group scored a positive result on the DMI; whereas, a little over 25% of the high-risk control group and the low-risk experimental group received a positive score on the DMI (Jamison, et al., 2010).

The assessment tools utilized in this study helped to objectively and subjectively identify chronic pain clients that were abusing their prescription medications. Participants also indicated that they felt the study helped them to remain compliant with their pain regimen.

Although this study was conducted over a long period of time, the data may be useful to help construct an assessment tool that can be implemented in an ED setting. As seen in this study, many of the participants suffering from chronic pain and using prescription opioids were at a higher risk for developing an addiction to prescription substances which supports the theory that a large percentage of drug-seekers in the ED are more than likely suffering from chronic pain and an addiction to prescription medication (Jamison, et al., 2010).

The limitations of this study included a small sample size, a high propensity for loss of subjects due to the requirements to complete the study, and an abundance of data to be collected and analyzed which may have lead to erroneous results. In order to make the evidence collected in this study more pertinent to application in emergency medicine additional research needs to be completed in an ED setting.

In a study conducted in Sacramento, California 113 clients visiting the ED and Urgent Care Centers were recruited to participate in a study that used the following evaluations: the

SOAPP, BPI, HADS, PDI, the Spielberg State-Trait Anxiety Inventory (STAI), and the Personality Diagnostic Questionnaire (Wilsey, et al., 2008b). This study sought to identify psychological comorbidities associated with drug-seeking in the ED. Of the 113 participants interviewed, 81% showed positive signs for a propensity for prescription drug abuse, 59% of the participants were within the range for clinical depression, 39% met the criteria for a state of anxiety, 34% of the participants also met the requirements for post traumatic stress disorder (PTSD), and over half of the participants were likely to have a personality disorder (Wilsey et al., 2008b).

Drug Screening

Another tool to aid in identifying drug-seekers is drug screening. The quickest, most effective, way to discover what drugs are in a client's system is by simply implementing a urinalysis (Ives et al., 2006). Tests using blood, hair, saliva, or sweat are also available. However, the most commonly exercised is a simple urinalysis (Schuckman, et al., 2008). Several articles researched the validity of using drug screening as a tool for identifying substance abusers.

Summa Health System researchers focused on self-report of drug use in comparison with the results of a urinalysis in an effort to establish a base line of underreporting of substance abuse in the ED. A retrospective study of 248 clients meeting the inclusion criteria and treated at a university-affiliated hospital in the Ohio area was conducted over a 6-year period. Subjects presented to the ED with a primary complaint of back pain, headache, or toothache. Even though participants were aware of the drug screening, 33% of the 238 participants had positive results for unclaimed drugs. Participants with a history of drug abuse, that requested a specific

narcotic or with chronic pain were significantly more likely to test positive for unclaimed drugs. Of the 238 participants, 10% tested positive for cocaine, and 4% for opioids (Schuckman, et al., 2008).

Study results showed that self-report of substance abuse is unreliable and more objective measures may be required in order to identify drug-seekers. Further research is necessary due to the limitations associated with attempting to screen for drugs with a short half life that are expelled from the system quickly or cannot be detected in the urine. The limitations of this study also included an increased potential for non-compliance with drug screening due to the implications of testing positive for an unclaimed drug. Research using anonymous specimens may prove more beneficial (Schuckman, et al., 2008).

Findings in a prospective cohort study conducted in North Carolina focusing on clients in a chronic pain management program showed similar results. Participants were periodically screened over a 12 month period for medications not prescribed and/or concurrent illicit drug use. The participants were required to undergo a preliminary health and physical exam which included collecting biographical data, pain assessment, disability, temperament, level of education, and ability to complete required material. Of the 196 participants, 32% were positive for opioid misuse. Participants with chronic pain, a history of drug use, or previous legal complications as a result of alcohol or drug use were considerably more likely to have positive urinalysis (Ives, et al., 2006).

Both studies report that clients with chronic pain or a history of substance abuse are at a higher risk for denying the use of illegal substances. Furthermore, they agree that drug screenings have limitations due to the short half-lives of frequently abused substances. The

researchers also agree that it is necessary to implement drug screening when substance abuse is suspected because self report is an unreliable source of information (Schuckman, et al., 2008). Limitations to this study include, as with other studies, excludes participants with a history of psychiatric disorders limiting the available information on self report of clients with mental illness (Ives, et al., 2006).

A cross-sectional probability sample survey was conducted in 81 hospitals throughout the Tennessee area. The 1,502 participants meeting the inclusion criteria for the study were interviewed and provided a specimen for analysis. The results showed some similarity and significant differences to other studies in this review. Marijuana, benzodiazepines, and opioids are the most prevalent underreported substances abused. Researchers also found a predominance of substance abuse identified in 10% of females ages 65 and over which showed a propensity for abusing opiates, benzodiazepines, and stimulants (Rockett, Putnam, Jia, & Smith, 2006).

The limitations of this study are similar to the previous two studies and include a variable window for detecting certain substances, limitations on compliance with drug screening, and the exclusion of participants with mental health problems. The results support the unreliability of self reports indicating a need for drug screening in the ED. A large number of participants were unwilling to provide a specimen to be analyzed. In this study it was also indicated that there is a risk of false positive results (Rockett, et al., 2006).

Prescription Monitoring

Recently several states including Illinois, Minnesota, Ohio, Tennessee, and Virginia have been working to develop a statewide prescription monitoring program. A prescription monitoring program helps decrease hospital shopping, physician shopping, and filling prescriptions in

multiple pharmacies. When drug-seekers are identified and forced to limit the number of prescriptions they obtain it will hopefully lead to a decline in prescription drug abuse.

Ohio initiated a statewide prescription monitoring program in 2006, referred to as the Ohio Automated Rx Reporting System (OARRS). This system monitors the prescription drugs in schedules II, III, IV, and V, carisoprodol products, and tramadol products. Information is collected from pharmacies and distributors bi-weekly and made readily available to physicians, pharmacists, and law enforcement agencies. Information from more than 18 million prescriptions is distributed on the internet via encrypted files. The study conducted by the University of Toledo Medical Center ED used the information available through the OARRS to observe for changes in client care (i.e., medication, dose, and diagnosis) and what specific information lead to these decisions (Baehren, et al., 2009).

Participants were adults with a chief complaint of dental, neck, back, head, joint, or abdominal pain not related to acute injury and/or trauma. Health care providers working in the Toledo Medical Center ED were given the opportunity to assess clients and make an educated clinical decision about the treatment they would provide. After the exam was completed a research assistant would administer a survey to assess what treatment they would provide, then given the information obtained through the OARRS system, after which they were given a follow up survey about how the data provided by the OARRS system changed their treatment method (Baehren, et al., 2009).

Data analysis showed that ED providers were likely to alter their treatment plan based on the information provided by the OARRS system. In fact, opioid prescribing was altered for 41% of clients. When prescribing decisions changed, 61% of physicians were for reduced or no opioid

medication while 39% received a larger prescription. Common reasons for physicians altering opioid prescription practices were related to the number of previous prescriptions filled, the number of physicians writing prescriptions, the number of pharmacies filling prescriptions, and the number of addresses listed for the client (Baehren, et al., 2009).

The information provided by this study showed that a prescription monitoring program affects ED physician treatment plans. The OARRS provides information to health care providers that otherwise would only be obtained through self report which has been show to be unreliable. The most important study finding was not that physicians altered their treatment plan, but that in many cases, physicians saw that a client they suspected of drug-seeking was more than likely in pain (Baehren, et al., 2009). This study was limited to one facility and the information posted in the OARRS is reported to be delayed by almost three weeks (Baehren, et al., 2009).

There are several limitations to implementing an effective prescription monitoring program, with the most obvious flaw being the difficulty of interstate monitoring. Without this feature, drug-seekers can simply circulate between states. In an effort to overcome this flaw, states have been working together to develop cooperative prescriptive monitoring. This would solve one problem but still leave the obstacle of overcoming regulations established by Health Insurance Portability and Accountability Act (HIPPA) (Baehren, et al., 2009).

Summary

Overall, the findings showed evidence that drug-seeking can be identified in a variety of settings, including the ED. Identifying common drug-seeking behavior through assessment of the client by using proper evaluation tools is both possible and essential. In order to make educated decisions about drug-seekers in the ED objective assessments include drug screening and

prescription monitoring which have been proven to be effective tools for identifying substances abusers. Through this integrative literature review, a variety of methods have been shown to be effective for the use of identifying drug-seekers; however, they have not yet been well researched for effectiveness in the ED.

DISCUSSION

The purpose of this integrative review of literature was to identify common drug-seeking behaviors in the ED, identify previous research on the topic, and evaluate measurement tools for drug-seeking clients. Common drug-seeking behaviors include pain complaints that are difficult to objectively validate, hospital shopping, requesting or having allergies to specific medications, and having a psychological comorbidity. Several methods have been identified to adequately recognize the signs and symptoms associated with substance abuse in order to provide the proper care. The findings showed that assessment, drug screening, and prescription monitoring programs can help identify drug-seekers by focusing on the common behaviors associated with substance abuse.

Assessment

Eight of the research articles reviewed showed similar assessment tools can be utilized to identify drug-seekers in the ED. The evaluation devices most commonly used in the research included: the Addiction Behaviors Checklist (ABC), the Brief Pain Inventory (BPI), the Current Opioid Misuse Measurement (COMM), the Hospital Anxiety and Depression Scale (HADS), the Pain Disability Index (PDI), the Prescription Drug Use Questionnaire (PDUQ), and the Screener for Opioid Abuse for Pain Patients (SOAPP). The assessment tools utilized in this research were constructed specifically to identify drug abusers, and their use can be an effective way to recognize common signs and symptoms associated with drug-seeking (Jamison, et al., 2010; Meltzer, et al., 2010).

It must be noted that none of the assessment tools has been evaluated in the ED setting. Time and other environmental constraints associated with the ED may change instrument

performance. Modified or condensed versions of existing instruments may be required for the ED setting (Meltzer, et al., 2010). Furthermore, many of the instruments seen in this review were administered and interpreted by trained experts. In order for these assessment tools to be successfully implemented in the ED, practitioner training in both administration and interpretation may be required.

Drug Screening

Implementing drug screenings has been shown to be an effective tool for identifying drug abusers. There are a variety of methods to administering a drug screening which require a biological specimen, such as blood, hair, urine, saliva, or sweat. However, the most commonly utilized method is a urinalysis. Of the articles reviewed, three focused on validity of use drug screening as a tool for identifying substance abusers. The information obtained showed conflicting results with self report and the results from a urinalysis, thus indicating that self report is an unreliable source of substance abuse history (Ives, et al., 2006; Rockett, et al., 2006; Schuckman, et al., 2008).

The research showed that the most unreliable reporters of substance abuse are clients with chronic pain, a history of substance abuse, or a history of legal complications associated with alcohol or drug use. The research suggested that tobacco users and clients with no history of substance abuse are among the most reliable of self reported use. The implementation of drug screening in the ED will help to identify substance abusers suspected of drug-seeking which will help to conserve resources and decrease expenditures (Ives, et al., 2006). Unfortunately, drug screening is only effective in identifying substances that remain in the body for a long period of

time showing that drug screening should be used in conjunction with additional tools to identify drug-seekers.

Other issues associated with implementing drug-screening in the ED are resource utilization, costs, and client privacy. Specimens for a urinalysis must be collected and sent to the hospital laboratory for analysis which increases both resource utilization and costs. There is also debate regarding client privacy rights and drug screening, unless the screening is medically or legally justifiable (Rockett, et al., 2006). Although an effective way to identify individuals who have recently used certain types of drugs, widespread use of urine drug screening requires more research and debate.

Prescription Monitoring

As prescription substance abuse becomes more prevalent, government officials are attempting to address the problem by implement statewide prescription monitoring programs. Ohio developed a statewide prescription monitoring program referred to as the Ohio Automated Rx Recently Reporting System (OARRS). Shortly after the program was initiated researchers attempted to support the validity of the program by discovering if prescription monitoring affects the treatment provided by healthcare providers. The research reported that a successful prescription monitoring program has a direct effect on the treatment that physicians provide (Baehren, et al., 2009).

Although prescription monitoring has been shown to be an effective tool for helping physicians to make more informed decisions about providing medications, care must be taken to protect clients' rights to privacy. Statewide monitoring programs are also ineffective at monitoring clients crossing state lines to hospital shop. Prescription monitoring is also

ineffective at identifying prescription drug abusers that obtain substances illegally (Baehren, et al., 2009).

Summary

The research reviewed showed evidence regarding a variety of subjective and objective methods to identify drug-seeking behaviors in the ED. Drug screening is a more concrete method of discovering substance abuse but may be subjected to false positives or false negatives and cannot screen for drugs with a short half-life (Schuckman, et al., 2008). Resources available to help ascertain the true motive for a client can be identified through the use of prescription monitoring programs which provide information about the number of prescription a client has had, the physicians providing treatment, and the quantity of pharmacies that the client uses on a regular basis (Baehren, et al., 2009). Incorporating these resources together to indentify drug-seeking in the ED will make discovering substance abusers less complicated and more accurate.

LIMITATIONS

Numerous limitations were noted in this integrative review of literature, including: small sample sizes, limited resources, inadequate training, and a limited amount of research conducted in EDs. In all but two of the studies reviewed sample size was limited to less than 250 participants. In the majority of the studies participants were recruited through convenience sampling when studies utilizing randomized sampling show more statistically significant results. The resources for these studies were also limited to utilizing one to four facilities in a close proximity to each other. The majority of the research was completed outside of the ED.

An additional limitation seen with drug screening is a risk for skewed data from false positive or false negative results. There is also a limitation in screening for commonly abused drugs as they do not remain in a clients system for an extended period of time. Of the three studies conducted by Ives and colleges in 2006, Rockett and colleges in 2006, and Schuckman and colleges in 2008, there were also a high number of participants that refused to provide a specimen for analysis even though they were instructed prior to beginning the study that they would be required to while taking part in a drug screening (Ives, et al., 2006; Rockett, et al., 2006; Schuckman, et al., 2008).

Limitations specific to prescription monitoring were also identified. Prescription monitoring is necessary to screen for prescription drug abuse but is questionable to whether or not HIPPA laws are being broken. It is important for client rights to be protected even if that means that prescription monitoring cannot be continued. Limitations are also noted with implementing statewide prescription monitoring programs because it does not provide a way to monitor clients living on state lines where hospital shopping can cross state borders.

RECOMMENDATIONS FOR NURSING

Research

A variety of research has been conducted to facilitate a specific means of identifying substance abusers. Unfortunately, most of the research completed is unique making comparing results difficult. Additional research will need to be performed based off of the research that has been completed in order to identify trends, similarities, and accumulate additional evidence to support the established theories about drug-seeking.

This integrative review of literature may promote further investigation into the topic identifying drug-seeking behaviors in the ED. An area of immediate need is a valid and reliable assessment tool that takes into consideration the uniqueness and limitations of the ED setting. This may start with modifying instruments validated in primary care settings to function effectively in the ED environment. Further research should examine additional signs and symptoms that have not yet been recognized.

When performing future studies, it would be favorable for researchers to use a sample size based on a power analysis to optimize the likelihood of detecting any differences if they exist. Random sampling representative of the population will improve external validity and generalizability of any results. Additional studies conducted incorporating more rigid standards will help to produce more accurate and empirically valid evidence.

Education

Nurses must be educated regarding the impact that drug-seeking on the available resources in the ED. Nurses should also receive education on proper management of clients

suspected of drug-seeking, such as referral services, drug rehab centers, and available alternatives to seeking care in the ED.

Practitioners should be educated about the available information from state wide prescription monitoring programs and how to utilize the data when providing care. It is also important for care providers to understand the limitations of drug screening and the implications associated with administering a urinalysis, such as: cost, time constraints, and client rights. Educating ED staff about the tools available to identify-drug seekers is an important aspect of helping to provide effective pain management in the ED.

It is imperative that nurses also educate their clients about the risk factors associated with substance abuse so that they can try to recognize what factors may make them more susceptible to addiction. Clients suspected of drug-seeking should be educated about the variety of resources available to help them recover from addiction. Nurses must also provide family education about the risk factors for developing substance abuse and the signs and symptoms of substance abuse so that they will be more capable of identifying drug-seeking behavior in their family member.

Practice

The results from this integrative review of literature have many implications for practice in the emergency medical field. At present, no assessment tool has been validated and successfully implemented in the ED. It is important for nurses to be aware of drug-seeking in the ED and make the appropriate decisions in accordance with their facilities protocols while acting as a client advocate.

When a practitioner's assessment leads to concern that a client may be drug-seeking, a thorough review of available medical history along with other available information (e.g., drug

screen) is warranted. Signs and symptoms such as frequent ED visits for pain, a history of substance abuse, or a record of allergies to specific non-narcotic pain medications may support drug-seeking suspicions. Prescription monitoring has also been shown to be an effective tool to guide treatment provided. Providers can utilize the information obtained by prescription monitoring programs to provide effective pain management in the ED.

A nurse's primary concern should always be centered on the comfort and well-being of their client. The nurse is the client advocate and must work to ensure the client is receiving proper care. That is why it is essential for a client to receive a comprehensive assessment including physical, history, and drug screening when indicated. The research shows that there is no single assessment tool to identify drug-seeking behaviors in the ED. However, practitioners using valid assessment tools, drug screening, and prescription monitoring may be able to more quickly and appropriately identify substance abusers presenting to the ED.

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