

## Taking on Substance Abuse in the Emergency Room: One Hospital's SBIRT Story

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**Abstract** Screening for alcohol and drugs seems to be gaining traction and is becoming more commonplace in the healthcare setting. With emergency departments often being a point of contact for many individuals needing healthcare services, it makes sense to provide screening for substance misuse within this setting. The purpose of this paper is to share how emergency department staff in the Midwest United States implemented a successful Screening, Brief Intervention, Referral and Treatment (SBIRT) program within their hospital.

**Keywords** Substance abuse · SBIRT · Addiction

Each year, over 20 million individuals living in the United States will visit an emergency department (ED) for an illness or injuries they have sustained. It has been estimated that 15–

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20 % of these individuals would test positive for having a substance abuse disorder (Madras et al. 2009; D'onofrio et al. 2006; Dunn 2003; Desy and Perhats 2008). When trauma related visits are included, the number jumps to 25–50 % of these individuals testing positive for either alcohol or illicit drugs (Madras et al. 2009; D'onofrio et al. 2006; Dunn 2003; Desy and Perhats 2008). These untreated substance abusers put communities at risk as well as create an economic impact of over \$185 billion dollars each year (D'Onofrio et al. 2006; Desy and Perhats 2008). Within this context, would it not be wise to use these ED visits to screen and address these individuals' substance abuse problems before they become worse?

To help with the growing burden that substance abusers are creating, many agencies have developed collection tools such as the AUDIT, DAST and CAGE which are sensitive to screening for both drug and alcohol use. Tools such as the DAST created by Harvey Skinner PhD in 1982, allow the practitioner a quick method to screen an individual for substance abuse disorders and based upon their score, assign a risk level to that individual (Madras et al. 2009; Insight Report 2009; Miller et al. 2006). Also, to encourage physicians and affiliated medical professionals to provide substance abuse screening to their patients, reimbursable procedure codes have been developed as further incentive to provide these services (Fornili and Alemi 2007)

## **SBIRT**

There is no shortage of literature showing the effectiveness of alcohol and drug screening in the acute care setting (Madras et al. 2009; Dunn 2003; Insight Report 2009; Miller et al. 2006; Rockett et al. 2003). Programs such as the Screening, Brief Intervention, Referral and Treatment (SBIRT) are growing in popularity and are being used in EDs across the country. SBIRT is a comprehensive, integrated, public health approach to the delivery of early intervention and treatment services for persons with substance use disorders, as well as those who are at risk of developing these disorders. Previous studies performed by the WHO have shown a 60 % decrease in substance use following a single brief intervention (Insight Report 2009; Miller et al. 2006). SBIRT allows the medical professional working in the ED a chance to “medicalize” the detection and provide an immediate intervention or a referral for treatment if warranted. It also is particularly effective in individuals with a low to moderate screening score, allowing insight into their substance problem before there are negative consequences (Madras et al. 2009; Dunn 2003; Insight Report, Rockett et al. 2003).

## **Creating the Foundation**

Meetings between representatives of the Oklahoma Department of Mental Health and Substance Abuse Services (ODMHSAS) and the author's 320—bed non-psychiatric Magnet hospital were conducted over a 12 month period of time. From these meetings, ODMHSAS committed to funding this pilot project for 6 month. The idea and framework was then presented to the hospitals' Nursing Research Council (NRC). The NRC consists of PhD and Masters prepared nurses as well as nurse managers and staff nurses who give feedback about nursing research projects. The NRC recommended incorporating the ED staff into the study talks so they could voice any concerns they may have. Based upon these recommendations, the ED nurses and physicians were brought into the study meetings and asked how they felt this project would work best in their fast paced environment. During the meetings it was decided that health educators should be used instead of ED nurses to deliver the SBIRT

services. This decision was largely based on concerns from the ED nurses. The ED nurses felt there would be times other responsibilities would be pressed upon them, causing the SBIRT screening to be missed. Previous studies concerning SBIRT have primarily involved either a physician or health educator carrying out the SBIRT process, hence causing little knowledge to be known regarding how well the ED nurse could perform these duties (Desy and Perhats 2008; Gaddis 2005). Other studies have shown additional barriers related to time management, prioritization, and inadequate staffing which has caused less than optimal results for ED nurses trying to integrate SBIRT into an already hectic setting (Desy and Perhats 2008; Gaddis 2005). After hearing the ED nurses concerns and reviewing the literature findings, this further supported our decision to use health educators for the SBIRT screening process. The nurses' wanted their primary role to be one of helping the screeners become assimilated into the ED environment and to assist them in identifying patients who needed to be screened. They also wanted to help develop the appropriate work flow so the SBIRT process would become seamless.

With limited funding, it was decided to focus the study on the 3 PM to 11 PM shift. This decision was largely based upon feedback from the ED physicians and nurses, who both agreed it was within this time frame that the largest group of patients who may benefit from SBIRT services were seen. To further support this time range, a study done by Raymond, Warren, Morris, and Leikin found it was during this shift, patients suffering from a drug overdose most commonly presented to the ED for treatment (Raymond et al. 1992).

With the goal of identifying as many patients as possible who may be experiencing substance abuse issues, and knowing the issues are often not evident, it was decided to focus on a broad group of patients. Based on input from the ED nurses, the determination was made to screen all patients over the age of 18 years, without life threatening injuries or illness and who were mentally competent. Patients would be allowed to opt out for any personal reasons or if the ER nurse determined the individual was too ill, in pain, or emotionally unable to participate in the screen. Another concern of the ED nurses was the addition of an "extra person" in their already tight environment. Several ED nurses voiced concern that the screeners would "get in the way" while they were performing life saving procedures. Another concern from the nurses and physicians was that the screener would interrupt the process of performing physicals or taking a patient's medical history. To help address these concerns, a meeting was held with ED staff to determine the best way and the best time for the screen to be performed. Based upon their feedback, screeners would not go into a room until the history and physical were completed, and the nurse or doctor acknowledged that the patient was ready. These steps were also emphasized in the training of the screeners.

Outcomes for this project focused on how to effectively implement SBIRT into the ED environment, and to identify challenges and barriers the SBIRT process created within that culture. Furthermore, the study wanted to identify the number of patients coming through the ED with substance abuse issues and determine if by providing SBIRT, the patients' behavior regarding their drinking or drug behaviors would change.

## Going Live

Following IRB approval from the author's institution, an employment ad was placed on the hospital's web page. Previous studies have shown that a screener must develop trust and rapport in a relatively brief period of time (Dunn 2003; Desy and Perhats 2008). Based upon these literature findings and the recommendations of the certified SBIRT trainer, it was decided to focus our efforts on hiring individuals who were "people –people" and not to

consider their science background as a requirement for this position. Training was carried out by the certified SBIRT trainer with classes being held over a 5 day period of time. Once training was completed, screeners started working in the ED and their impact was immediate. The first night they identified 2 at risk patients and by the end of the first week, had identified 15 at risk individuals who presented in the ED.

## Results

The study participants consisted of a convenience sample of 2083 adult patients seeking ED treatment over an 8 month period of time. Of this sample, 1319 screened negative for substance misuse therefore not meeting the requirements to justify having the brief intervention performed; 372 patients were deemed not medically stable for the screen to take place and 27 patients refused to participate despite being medically cleared for the screen. The remaining 365 patients were identified as being at risk or greater for substance misuse. These patients ranged in age from 18 to 68, ( $Mage=32.65$ ,  $SD=11.2$ ) 202 were females and 162 were males (1 missing); 242 persons were Caucasian, 72 were African American, 48 were Hispanic or Native American Indian, and 3 were Asian American. Following the screening, each of these at risk individuals met with the health educator for a brief intervention lasting 5–10 min. The aim of the brief intervention was to educate and empower patients so that they could make the connection between the various risks substance misuse can cause, hence facilitating a change in behavior. The health educator used this one-on-one time to discuss the many health and legal consequences that substance abusers are often faced with. Following the brief intervention, each patient was given the opportunity to ask questions and was given the educational brochure along with a list of community resources for help. If warranted, some patients were given a direct referral for drug and alcohol counseling. Of this population, 18 (4.9 %) received referrals for additional drug and alcohol counseling. Within the brief intervention group were individuals who were pregnant ( $n=9$ , 2.4 %) as well as individuals under the legal drinking age of 21 years old ( $n=13$ , 3.5 %). With these two groups, the health educator focused their intervention/education toward total abstinence from alcohol and drugs.

As noted in previous studies, it is often a challenge to gather follow up information on patients who may misuse or abuse substances (Cunningham et al. 2008; Breton et al. 2007). This study experienced those difficulties as well. Of the 365 patients that had a brief intervention performed, 47 (12.8 %) expressed interest in receiving a follow up call from the health educator approximately 60 days following their exposure to the brief intervention. However, when the health educator placed the follow up call, they often found a non-working phone number the majority of the time (61.7 %). Of the phone calls that did elicit conversation ( $n=18$ ), the screener was able to ask the following two open ended questions;

“Was the information provided during the brief intervention helpful?” and “Did it change your behavior?” In regards to question number one, all of the respondents interviewed agreed that the information provided was helpful and done in a non-judgmental way. Representative comments included the following:

Patient liked and appreciated the education on alcohol.

Patient very thankful for the educational time with both the health educator and the ER doctor.

Patient thought the interview was helpful and approached in a way that was non-threatening and non-judgmental. Overall patient was happy with the service and very (happily) surprised with the follow up.

As with question number two concerning changing behavior, the majority had commented that they had modified their behavior due to the brief intervention. Examples included the following:

Patient never took into consideration how much her social life was having an effect on her immune system. Didn't know that marijuana use could cause frequent colds or that her drinking could affect her ulcers. Definitely made her change her behavior.

Patient states he learned a lot. Liver problems reversed. "Have not touched a sip of alcohol since I was there"

Stopped using because patient was afraid his seizures were caused by the drugs and alcohol he was using. Has completely stopped using. Very thankful someone approached him about this. He thinks this may have saved his life.

While most of the callers interviewed did verbalize a change in their behavior concerning substance usage, one could question their truthfulness as it may or may not reflect their actual usage. Of the patients the screener spoke to during the follow up phase, only two admitted they had no change in their substance usage patterns.

## Discussion

Because this process was new to the ED, many barrier developed throughout the course of the study. Despite having the ED stake holders at the table during the development phase of the study, issues concerning when the screeners should interact with patients came into play early on. Many nurses and physicians felt as if the screeners were in the way, or had "bad timing" when trying to screen a patient. While the health educators needed to be assertive to establish themselves within the ED so they could screen patients, they also needed to respect the delicate balance which often surrounds the work flow of the ED. The process of the nurse or doctor locating the screener to come into the room following their interaction with the patient took some time to develop. With an ED nurse who is caring for multiple patients who are often in life threatening situations or extremely ill, it frequently slipped their minds that the screener was there. To help facilitate a balanced work flow, ED nurses suggested the health educator should perform their screening between a patient's exam or while waiting for procedural (lab/x-ray) results. By screening patients during this 'off time', the patient is interacting with a staff member during a time when he or she may feel nothing is happening. The screen and the interaction helped keep the patient engaged, and may have led to an overall more positive experience for the patient. Along with the timing of screening patients, the "who" should be screened came into play early on as well. Patients were often too sick, in pain, or had psychiatric issues that prevented contact being made. Because of this, many possible individuals with substance abuse issues may have slipped through the cracks. Since many of the SBIRT screeners did not have a clinical background, there were times when they were not comfortable going into a room with an ill patient. Although during training the screeners were given an idea of what to expect, there is no substitute for actual time spent in the ED to assimilate to the environment. While in the initial planning, social workers were unintentionally left out of the early conversations which caused friction on what their role would be. This resolved itself quickly and the social workers proved to be a huge asset in helping make referrals for patients who needed more help and should be included when planning any SBIRT type project.

Perhaps one of the biggest challenges faced was with patients that were drug seeking. It was never the intent of this study to deny medication to a patient with a real medical problem causing discomfort. It is often difficult to differentiate between a patient with legitimate pain, and a patient who is seeking drugs either to fuel their addiction or to sell on the streets. Many times nurses were faced with a patient who had exaggerated medical problems or scripted, almost textbook symptoms, and would often possess an unusual knowledge of controlled substances. These patients would often raise the nurse's suspicions and the health educator would perform the SBIRT screen. However, very few (if any) would admit to substance issues and again an opportunity was missed. Although there were many patients who were known to ED staff as "frequent flyers" or drug seekers, they would often claim to be too sick to be screened, refuse the screen or when screened would score below risk. For patients who had multiple visits with many different pain complaints, the ED nurse would often have the screener perform the brief intervention in hopes of eliciting dialogue with the patient to increase their personal awareness into their substance misuse. It also served notice to individuals who may be drug seeking that these screens were taking place in the ED, however this is problematic at best as the individual may switch to another ED within the city area.

As with any study there are limitations that need to be addressed. This trial may have had more meaningful data if performed in a randomized manner with a control group and with a larger group of patients from multiple ED sites. Because this study took place in an ED that is in an affluent area of town, these results may or may not be applicable in an inner city ED setting with fewer resources. Due to the limited sample size of individuals who allowed for a follow up phone call, it is easy to question if a larger sample size would produce like positive findings. Also as mentioned previously, one could question the truthfulness of the responses given to the health educator.

With SBIRT type services now on the Joint Commission on Accreditation of Healthcare Organizations radar, its widespread adoption as standard of care for EDs across the country may not be far behind. This study demonstrated an opportunity for the ED staff to work together on a project to help individuals struggling with substance abuse, which served as a catalyst for future studies.

The researchers of this project are hopeful that other EDs and nurse leaders will be encouraged to find an effective way to implement SBIRT style services within their own institutions.

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