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## Screening for Alcohol use/abuse in the Primary Care Setting using the AUDIT-C and SBIRT (Screening, Brief Intervention, Referral to Treatment)

Whitney D. Spear  
*University of Kentucky*, [spear538@yahoo.com](mailto:spear538@yahoo.com)

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Whitney D. Spear, Student

Dr. Julianne Ossege, Advisor

Running Head: SCREENING FOR ALCOHOL ABUSE IN PRIMARY CARE

DNP Final Project Report

Screening for Alcohol use/abuse in the Primary Care Setting using the AUDIT-C and SBIRT  
(Screening, Brief Intervention, Referral to Treatment)

Whitney D. Spear, BSN, RN

University of Kentucky

College of Nursing

Fall, 2017

Julianne Ossege, PhD, FNP-BC, FNAP – Committee Chair

Lynne A. Jensen, PhD, APRN-BC – Committee Member

Kristin Pickerell, DNP, RN, NE-BC, CPHQ – Committee Member/ Mentor

## SCREENING FOR ALCOHOL ABUSE IN PRIMARY CARE

### **Dedication**

This DNP project is dedicated to several people who have helped make this journey possible. To Austin, you were lucky enough to join me in the later and most stressful part of this journey. You will never know how grateful I am that I was able to have you by my side during the toughest part of this journey. You have been the calm to my chaos, you have wiped away my tears and you have been my biggest cheerleader when I just did not think I could finish this race. I Love You and I am forever grateful for you. To my parents and my brother, sister and grandma, you five have supported me when you didn't even realize it. A hug, a smile, a simple favor never went unnoticed or unappreciated. I can never express how lucky I am to have you five in my corner and I love you all very much. To my two best friends Stacy and Becky, I cannot begin to describe how lucky I am to have you two in my life. You were always just a phone call away when I was stressed out or on the brink of a breakdown. I found relief knowing that just by hearing either of your voices that everything was going to be Okay and that God was in control. I love you two! To my tripod Cherry and Kristyn, we made it! You two are probably the only two people on this planet who truly understand every emotion, every fear, every assignment, every test, every frustration and every celebration that I have had and dealt with in the last three years. If I had to do it all over again I would not change one thing. I cannot imagine nor would I want to go through this program with anyone but you two. I couldn't have done it without you two, Tripod for life! To my sweet Ellie Grace, some may think I'm crazy for including you in this but we will pay them no mind. Thank you, sweet girl, for always putting a smile on my face when there wasn't a lot to smile about. Thank you for lying right next to me during every paper I wrote and every test I took. I wish everyone were as loyal as you. Above everyone I must thank my Lord and Savior Jesus for showing me the way and guiding me on my path. One last dedication goes to those who I love who struggle with and those I have lost from this horrible disease, I will continue to fight to help those who cannot help themselves. I hope I have made everyone mentioned proud because I am a better person for having you all in my life.

## SCREENING FOR ALCOHOL ABUSE IN PRIMARY CARE

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## SCREENING FOR ALCOHOL ABUSE IN PRIMARY CARE

### **Abstract**

PURPOSE: The purpose of this study was to examine the feasibility of alcohol screening in the primary care setting to detect alcohol abuse or misuse using the AUDIT-C standardized screening tool and SBIRT.

METHODS: This study design was a Quasi-Experimental intervention, one group post-test. Data was collected via retrospective chart review from the electronic medical records by the type of office visit; either new patient initial visit or annual well visit. The patient sample consisted of 25 participants for the study period of September 19<sup>th</sup> through October 10<sup>th</sup>, 2017.

RESULTS: There were 37 patients eligible to participate in the study; annual visits or new patients. Two APRN providers tested the feasibility of using the tool. Of the 37 patients, 25 (n=25) received the AUDIT-C tool, and 23 scores were documented by the provider. Provider compliance in documenting was 92%. The sample was 80% female the mean age was 42.6. Almost nine percent scored high enough for a Brief Intervention.

CONCLUSION: Feasibility of the AUDIT-C use in the primary care setting was shown. Providers were satisfied and felt they took away essential information they would not have otherwise had. More studies need to be done on a larger scale, incorporating more providers and more locations.



# SCREENING FOR ALCOHOL ABUSE IN PRIMARY CARE

Screening for Alcohol use/abuse in the Primary Care Setting using the AUDIT-C and SBIRT  
(Screening, Brief Intervention, Referral to Treatment)

## **Introduction**

The increasing problem of addiction has begun to make an impact on society. The stigma associated with addiction is decreasing but there is still considerable room for growth. There has been a lack of strong supporting research in the recent past regarding screening for addiction in the primary care setting. . Alcohol abuse and misuse is one of the oldest forms of addiction that has been overshadowed by the ever-growing substance abuse epidemic.

The National Survey on Drug Use and Health and the Substance Abuse and Mental Health Services Administration (SAMHSA) in past reports acknowledged that a considerable amount of people who had an alcohol problem did not even recognize it as a problem (Agerwala & McCance-Katz., 2 012). SAMHSA reported in 2014 that more than 66% of people who were 12 years of age or older admitted to drinking alcohol within previous 12-month period and of those 6.4% fell within the criteria of alcohol use disorder (SAMHSA, 2017). Without knowledge of a problem, no intervention can be made. Recognition of alcohol abuse requires one to ask questions and allow for proper standardized screening for alcohol use or misuse in the primary care setting. Therefore, the aim of this study is to implement screening for alcohol use/misuse in the primary care setting using the AUDIT-C and SBIRT.

## **Background**

Alcohol and substance abuse could be considered epidemics in the US and are important population health issues to address. In the first ever U.S. Surgeon General's report based solely on addiction it was reported that alcohol misuse or abuse had a projected yearly economic burden of more than \$249 billion; with illicit drug misuse having a \$193 economic burden (U.S. Surgeon General, 2015). The U.S. surgeon general's report established that more than 21 million Americans struggle with alcohol or drug addiction. With those extreme numbers, it could be said that alcohol or substance abuse disorders are more prevalent than cancer (Smith, 2017). In the United States, approximately 88,000 people every year will lose their life to problems associated with alcohol use (National Institutes of Health (NIH), 2016). In 2012, Alcohol abuse was the fourth leading cause of death Worldwide; alcohol was attributed to more than 3.3 million deaths

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or on average, 7.6% of all deaths. Worldwide, alcohol is ranked 5th as an issue that can lead to an early death. (National Institute on Alcohol Abuse and Alcoholism, 2016). There are more than 200 different chronic health problems that alcohol causes or contributes to. The most significant of those health problems include: liver cirrhosis, various cancers, alcohol dependence, and alcohol related injuries. The NIH reported that 72,559 people died from liver disease in 2013, and of those deaths 45.8% included alcohol (National Institute on Alcohol Abuse and Alcoholism, 2016). No dollar amount could ever be put on the toll this has taken and continues to take on so many lives and families.

A 2008 report from the National Survey on Drug Use and Health and the Substance Abuse and Mental Health Services Administration (SAMHSA) indicated that 10% of Americans met the standards for alcohol or substance dependency. The report also indicated that 90% of those with abuse issues have had no treatment of any type. Of those who have never received treatment, 95% of them did not acknowledge that they even had a problem (Agerwala & McCance-Katz., 2012). Without knowledge of a problem, no intervention can be made. Recognition of alcohol abuse requires one to ask questions concerning drinks taken in daily, weekly, and monthly; it also requires one to know how to measure drinks and how much a pint or shot would be. A comprehensive screening tool, used to screen for any incidence of disease or addiction, can be incorporated into any primary care patient visit and become the practice standard. The AUDIT-C tool is a standardized screening tool that is used to screen for the disease of alcohol use and abuse.

Screening, Brief Intervention, and Referral to Treatment (SBIRT) can be used as a guide for intervening and beginning early treatment for alcohol use disorder. SBIRT is a process that should be coupled with a standardized screening tool in order to properly screen. SBIRT begins with screening and then if needed moves to a brief intervention such as counseling or education, and then, if needed, referral to treatment. SBIRT provides a framework to screen for sensitive information like alcohol abuse using motivational interviewing techniques (Stoner et al., 2014).

The AUDIT-C tool is a standardized screening tool that is used to screen for alcohol use and abuse. Developed by the World Health Organization (WHO), the AUDIT-C screening tool is a direct and easy way to assess for indications of dangerous or destructive drinking and aid in the recognition of any alcohol dependence. The AUDIT-C tool can help patients understand their

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alcohol use and whether there is a problem. The SBIRT process can help the provider work through the sensitive topics and help the patient feel more at ease about their substance abuse and treating it. SBIRT coupled with the AUDIT-C tool can be used during this process.

The evidence shows that alcohol abuse is truly a problem. In the primary care settings within the study organization, there is no standardized alcohol-screening tool being used. Within the electronic health record, there are five assessment questions that ask about alcohol consumption. The questions being asked are; do you drink alcohol yes or no? What is the number of glasses of wine that you consume? What is the number of cans of beer you consume? What is the number of shots of liquor? What is the number of standard drinks or equivalent that you consume? There is also an area for free text alcohol/week consumption comments to be entered. It can be assumed that within the study organizations primary care patient population that the national alcohol abuse statistics are at least comparable to the national average. Annual alcohol use assessments using the AUDIT-C tool are vital to quantify the problem and cope with this addiction epidemic. Alcohol screening can be a difficult and sensitive topic, but, it is clear that there is a problem that needs the proper attention. The hope is that using the SBIRT process can simplify the patient-provider conversation.

### **Purpose**

As research has shown addiction, especially alcohol, is a significant problem. The purpose of this study was to examine the feasibility of alcohol screening in the primary care setting to detect alcohol abuse or misuse using the AUDIT-C, a standardized screening tool and SBIRT. Secondly, with the use of SBIRT, a new process for screening could begin which could be used for screening of all alcohol abuse. This project could be a building block to implementation of this standardized screening tool into system wide primary care practice. The main objectives were to:

1. To examine the feasibility of alcohol screening in the primary care setting to detect alcohol abuse or misuse.
2. To examine provider adherence to documentation screening the appropriate patients with the AUDIT-C.
3. To evaluate any interventions made for those who were screened.

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### **Methods**

This study design was a Quasi-Experimental intervention, one group post-test. Data was collected via retrospective chart review from the electronic medical records by the type of office visit; either new patient initial visit or annual well visit. The alcohol screening process at the study site included no standardized screening tool. There were minimal questions that providers could ask about alcohol use but there was no screening associated with any misuse in the Electronic Medical Record (EMR).

### **Setting**

The study organization is the leading provider in the Louisville Metro area and consists of 5 major hospitals and numerous community offices and urgent care centers to serve those in the general metropolitan area as well as those in Southern Indiana. Two APRN providers and their patients were used in this study.

### **Sample**

The sample included 37 new patient or annual exam visits that were flagged during the two-week (10 working days) study period (September 19- October 10<sup>th</sup>). Of the 37 patients eligible for participation, 12 did not show up for their scheduled appointment; therefore, the patient sample consisted of 25 participants for the study period. The response rate was 62%. There was no pre-intervention data to compare to. The study population included patients ages 18-65 who were there for a new patient encounter or annual exam. Exclusion criteria included patients who were not there for a new patient or wellness/annual exam. Those patients who did not speak English were excluded. Those patients under age 18 or over the age of 65 were excluded.

### **Procedures**

The two APRN providers that participated and carried out the study as well as their Medical Assistants (MA) were given a brief 30 minute educational session on the use of the AUDIT-C screening tool as well as aspects of motivational interviewing including SBIRT. During the educational session, the providers were given handouts of the AUDIT-C tool, alcohol

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related resource materials, and referral options in the city of Louisville. The two providers work 4 weekdays each with hours ranging from 8:00 am to 4:00- 5:00 pm.

### **Data Collection**

Before data collection was performed approval was given from the University of Kentucky Institutional Review Board (IRB) and Norton Healthcare Office of Research and Administration (NHORA). Using a retrospective chart review data was collected from the patient charts from the provider notes. A temporary crosswalk table was kept during the study with the patient's medical record number linked to their unique study number to prevent duplication. Data collection was done by accessing the provider note from the patient encounter once the study was complete. Data collected from each chart included: the patient study number, age, race, sex, ethnicity, was the AUDIT-C given, the AUDIT-C score, and any interventions done. This data was collected and entered in an electronic data collection spreadsheet. The temporary crosswalk table was then destroyed. See Tables 1 and 2.

Descriptive statistics, which included SD, means, percentages and frequency distributions were applied to adequately describe the sample and demographics. SD and mean of age showed a wide variety of ages. The percentage of patients who participated showed the diversity of the study.

### **Results**

The sample included 80% females. The sample included 68% were Caucasian, 30.4% were African-American, and 4.3% were Asian. The age ranges of the patients were 21-63 with a mean age of 42 and a SD of 11.9. During the study, 92% of the AUDIT-C tools were given; 23 out of the 25 total patients received, completed, and were given a score. It is unclear if the remaining 2 patients received the tool and the provider did not document a score. The AUDIT-C total score range is 0-12, men who score 4 or higher and women who score 3 or higher are considered to have a positive score; 12 of the patients scored 0 and had no risk factors, 9 of the patients scored greater than 0 but did not score high enough to warrant an intervention, and 2 of the patients scored high enough for a brief intervention. Brief intervention included a brief education regarding dangers of alcohol use pertinent to the patient. The provider documented in their note that the brief intervention was done and what was discussed.

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### **Discussion**

The goal of this study was to examine the feasibility of alcohol screening in the primary care setting and evaluate any interventions done. Alcohol screening is something that should be made standard of practice especially in the primary care setting. Patients go to their primary care office more often than any other medical establishment and alcohol screening once a year is recommended. Providers should be aware of all medical issues that have the potential to negatively affect their patient's health and wellbeing. Without this tool becoming a standard of practice, those who use alcohol could have life threatening issues if for example, they were ever admitted into the hospital for any reason. Withdrawal usually starts within 24-48 hours without alcohol if the patient is a daily user. With alcohol screening becoming a standard of practice these life-threatening issues can be dealt with before they are able to harm the patient.

### **Feasibility of Provider Adherence**

The results of the study show that screening using the AUDIT-C is feasible however, more data is needed. The results yielded only 25 patients being screened. This small amount of data shows that it can be done, however, more data is needed to show stronger evidence of feasibility of the tool on a larger scale. Of the 37 patients identified for the study, only 25 patients attended their scheduled appointment, and of the 25 only 23 charts had alcohol screening documented by the provider. Provider adherence of 92% demonstrates that incorporating alcohol screening with the Audit C/Audit tool is feasible in the primary care setting. Overall, the results show that screening for alcohol use can be carried out in the primary care setting with provider compliance if given proper education on alcohol screening. Per the Provider, the 2 patients who were not charted as having the AUDIT-C done was an error on her part; she stated after the study that she gave the tool but forgot to chart the results and interventions in her chart. If this study were implemented on a larger sample, for a longer period of time, and with multiple providers' reasons for failure to document could be discovered.

### **Limitations**

Various limitations were recognized in the design and process of the study. The alcohol screening was limited to only new patient encounters and annual exams. This limits the amount of data because some providers may not see any or only a few of these visit types daily. In some

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healthcare settings, there are providers who have a large patient base that they are no longer accepting new patients; however, the providers in this study were both accepting new patients. Another limitation found pertaining to patient visits dealt with new patients who did not show up for their scheduled appointment. It is unclear why these patients no-showed, however, one provider found that this was a trend. The provider noticed that patients would make the appointment months ahead of time and then not come to the visit for whatever unknown reason. In future studies expanding the screening to all chronic visits, new patients, and annual exams would produce more data and better show the feasibility using the tool during acute visits.

Another limitation of this study is that there were only two providers who participated in the study. Not all providers were interested in joining for reasons of disruption of clinic flow and uncertainty about the screening itself. Making this screening standard of practice would compel other providers to begin to screen. Compliance would improve, if providers were expected to complete a mandatory in-service or training about alcohol screening yearly, because this will offer information about the importance and how providers can charge for this type of screening. Not only would multiple providers be beneficial in future studies, but multiple primary care practices would offer greater data and results and show long-term feasibility. Increasing the length of time that the study was to be carried would be beneficial. Increasing the length of the study will offer a larger more diverse sample. This study was done with 2 providers in the same office setting over 10 working days. More time would certainly yield greater data.

Some final factors that could be limitations include the Primary Investigator (PI) being in the office on the days that the study was being carried out. One of the providers was the PI's clinical preceptor. The PI was there to remind the providers of the patients who were flagged to be screened that day and was also available to field any questions along the way. Although these providers did not have many questions, going forward this will likely not be the case in future studies. Therefore, future studies need to include enough education so that providers can carry out the study with no onsite assistance.

### **Implications and Recommendations**

Moving forward recommendations for future studies include implementation of alcohol screening on a larger scale with more providers as well as broadening the type of patient visits that should be screened. These future studies are crucial for the future of alcohol screening to

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show that this practice is feasible, and important. The focus of this study was on feasibility and provider compliance. Moving forward, more providers and a broader patient inclusion criterion would provide a greater sample size with stronger data.

In May 2013 the U.S Preventative Task Force (USPSTF) gave the final recommendation statement concerning *Alcohol Misuse: Screening and Behavioral Counseling Interventions in Primary Care*. The grade B recommendation read, “The USPSTF recommends that clinicians screen adults aged 18 years or older for alcohol misuse and provide persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce alcohol misuse (U.S. Preventative Services Task Force, 2013).” The grade B recommendation signifies that there is greater assurance that overall benefit of screening is medium to high. There is evidence that future screening is warranted. Another organization who works strongly for alcohol and all substance misuse/abuse is Substance Abuse and Mental Health Services Administration (SAMHSA). SAMHSA now offers grants to each state to provide funding for substance abuse and mental health services. These grants are non-competitive and mandated by Congress (SAMHSA, 2017). Universities such as the University of Kentucky are receiving grants for training in SBIRT and substance or alcohol misuse.

There is definite room for improvement moving forward with alcohol screening. Currently there are billing codes for screening only for the AUDIT tool, but if providers are not educated on the alcohol screening tools and SBIRT, screening rates will not be adequate. Some recommendations are to introduce a yearly training for providers including screening tools, SBIRT, and motivational interviewing. Brief discussions with the providers occurred after the study. Providers were asked if they had any negative or positive feedback about the study, whether they felt it disrupted clinic flow, what would they like to see done differently, and would they like to see it built into the electronic medical record under preventative health maintenance? Provider feedback suggested no changes in the study design or procedure and that the study was not time consuming. There was no disruption in clinic flow according to the providers. One provider thought this provided more information about the patient that wouldn't have otherwise been brought up. The providers both agreed that the AUDIT or AUDIT-C should be built into the health maintenance tab of the EMR. The study organization's primary care EMR has a section for each patient called Health Maintenance; this is where all other preventative screening



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data is kept i.e. mammograms or immunizations. The provider feedback is essential to planning and implementing future studies. Identifying different options from this study, providers, and future studies can offer an even larger influence on patient screening for alcohol misuse.

### **Conclusion**

The purpose of this study was to examine the feasibility of alcohol screening in the primary care setting, to examine provider adherence to screening and documentation, and evaluate any interventions done. In the two-week period 25 patients were given the AUDIT-C tool and 23 were documented on by the provider. Even with the amount of data being small it is enough to show that this is a feasible screening tool for the primary care setting. Provider satisfaction and essential information about previous and current alcohol use from patients was achieved. Patients who may otherwise have never been screened received alcohol use screening, and 2 of the patients received Brief Interventions. Although more studies need to be done, adding alcohol screening to the primary care setting as a standard of practice is vital to improve quality patient care. This screening tool is just the beginning in making an impact in the horrendous state of addiction that our society finds itself in.

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## SCREENING FOR ALCOHOL ABUSE IN PRIMARY CARE

Table 1. Descriptive summary of study variables (n=25)

<i>Characteristic</i>	<i>Mean</i>	<i>(SD)</i>
<i>Age</i>	42.680	11.9956
	<i>n (%)</i>	
<i>Gender</i>		
<i>Male</i>	5 (20%)	
<i>Female</i>	20 (80%)	
<i>Race</i>		
<i>Caucasian</i>	17 (68%)	
<i>African American</i>	7 (30.4%)	
<i>Asian</i>	1 (4.3)	

Table 2. Descriptive Summary of AUDIT-C tool

<i>Characteristic</i>	<i>No</i>	<i>Yes</i>
<i>AUDIT-C done (n=25)</i>	2 (8%)	23 (92%)
<i>AUDIT-C score (n=23)</i>	<i>n (%)</i>	
<i>0</i>	12 (52.2%)	
<i>1</i>	7 (30.4%)	
<i>2</i>	2 (8.7%)	
<i>4</i>	2 (8.7%)	
<i>Intervention done</i>	<i>n (%)</i>	
<i>Brief Intervention (BI)</i>	2 (8.7%)	
<i>None</i>	21 (91.3%)	