

7-25-2024

CRAFFTing Change: A Quality Improvement Project to Enhance Knowledge and Confidence Assessing Substance Use in Adolescents

tjone158@fiu.edu

Follow this and additional works at: <https://digitalcommons.fiu.edu/cnhs-studentprojects>

Recommended Citation

"CRAFFTing Change: A Quality Improvement Project to Enhance Knowledge and Confidence Assessing Substance Use in Adolescents" (2024). *Nicole Wertheim College of Nursing Student Projects*. 267. <https://digitalcommons.fiu.edu/cnhs-studentprojects/267>

This work is brought to you for free and open access by the Nicole Wertheim College of Nursing and Health Sciences at FIU Digital Commons. It has been accepted for inclusion in Nicole Wertheim College of Nursing Student Projects by an authorized administrator of FIU Digital Commons. For more information, please contact dcc@fiu.edu.

CRAFFTING Change: A Quality Improvement Project to Enhance Knowledge and Confidence
Assessing Substance Use in Adolescents

A Scholarly Projected to the Faculty of the Nicole Wertheim College of Nursing and Health
Sciences

Florida International University

In Partial Fulfillment of the Requirements

For the Doctor of Nursing Practice

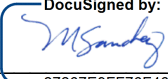
By

Trudian Jones, MSN, PMHNP-BC

Supervised by: Antonella Graña, DNP, APRN, CPNP, PMHNP-BC

Clinical Mentor

Shlomo Pascal, MD

Approval Acknowledged:  _____, DNP Program Director
27267E9FF76F460...

Date: 7/25/2024

Abstract

Background: Substance use among adolescents is a serious problem for mental and physical health. Unfortunately, provider screening using evidence-based tools is inconsistent and may lead to gaps in patient care. The CRAFFT tool is evidence-based and is widely used to assess adolescents with substance use (Song et al., 2019).

Purpose: This quality improvement project aimed to enhance providers' knowledge of available screening tools, such as evidence-based CRAFFT, in identifying adolescents at risk of substance use. Another aim was to introduce and encourage the use of the screening tool at each visit within the practice, thereby standardizing the approach and potentially improving patient outcomes.

Methods: Using a pre-test post-test format, the educational intervention focused on enhancing providers' knowledge in clinical practice and screenings using the CRAFFT tool, an evidence-based substance use screening tool targeting adolescents. A comparison of the pre-intervention survey and post-intervention was used to assess providers' knowledge about CRAFFT screening tools, including the Substance Abuse Attitude Survey (SAAS).

Results: Post-assessment surveys from Qualtrics showed an overall improvement and an increase in knowledge of the CRAFFT tool from pre-intervention. Although the results are promising, they are from a single site, which limits generalization.

Conclusion: Providing education can improve knowledge and screening processes. With increased knowledge, providers will greatly impact screening to decrease the rates of substance use in adolescents.

Keywords: adolescents, teens, youth, substance abuse, drug use screening.

Table of Contents

Abstract	2
Introduction.....	4
Background	5
Consequences of the Problem	6
Knowledge Gaps	7
Proposed Solution	7
Summary of the Literature	8
PICO Clinical Question & Objectives	13
Primary DNP Project Goal.....	13
Definition of Terms.....	15
Conceptual Underpinning and Theoretical Framework.....	16
Description of the Program Structure	16
SWOT	17
Methodology	18
Setting and Participants	18
Description of Approach and Project Procedures	18
Protection of Human Subjects.....	19
Data Collection.....	20
Results.....	20
Discussion.....	25
Limitations.....	26
Plan for Dissemination.....	26
Implications for Advanced Practice Nursing.....	29
Conclusion	30
References.....	32
Appendices.....	39
Appendix A: IRB Approval Letter.....	40
Appendix B: Support Letter	41
Appendix C: Recruitment Letter.....	42
Appendix D: Pre-test /Post-test.....	43

Introduction

Substance use disorder is one of the most prevalent mental health problems in children and adolescents (Thomasius et al., 2020). Between the ages of 13 and 15, most adolescents have their first exposure to alcohol and tobacco products (Thomasius et al., 2022). Providers from various settings play an important role in screening and identifying at-risk patients. Due to the significant failure rate of detecting even severe substance abuse problems when depending only on clinical impression, it is crucial to emphasize that standardized instruments should be utilized when screening for substance abuse disorders (Hayde, 2021).

Early intervention and prevention efforts are critical, and mental healthcare providers should be vigilant when screening for substance use during routine clinical visits (Sarvey & Welsh, 2021). Effective screening procedures have been shown to significantly improve patient outcomes (Klein et al., 2020). A study by Spillane et al. (2020) identified common harmful substance use in youth, including marijuana, heavy alcohol consumption, cigarette smoking, and other drugs. Additionally, many youths experiment with various substances and, subsequently, escalate their use over time. Evidence indicates an increase in substance use, particularly psychoactive substances such as alcohol and cigarettes (Salmanzadeh et al., 2020; Robert et al., 2021). Therefore, interventions are needed to reinforce and enhance providers' knowledge and confidence in utilizing available evidence-based screening tools, such as the C-Car, R-Relax, A-Alone, F-Forget, F-Friends, T-Trouble (CRAFFT), to identify at-risk individuals. This approach aids providers in early detection of substance use among adolescents, offering basic education, and early intervention. Additionally, providers can provide timely referrals for adolescents who require formal substance use treatment (Hunt et al., 2022).

Background

According to Krist et al. (2020), 8% of adolescents aged 12-17 engage in unhealthy drug use, with cannabis being the most used substance. The prevalence of drug abuse among the youth is a matter of public concern, as indicated by the National Center for Drug Abuse Statistics (2023). Additionally, in Florida, 7.87% of 12-17-year-olds reported drug use, while 9.05% reported alcohol consumption. Similarly, SAMHSA (2023) found that 63.1% of adolescents aged 12-17 years have vaped nicotine. Bunik et al. (2022) found that e-cigarettes adversely affected the cardiovascular system, respiratory system, and vascular health, resulting in detrimental health consequences. They also noted that nicotine use through e-cigarettes can modify brain chemistry, ultimately leading to addiction and exacerbation of mental health problems among adolescents.

The Monitoring the Future (MTF) study, currently led by Johnston et al. (2021), aims to track substance use trends from adolescence through adulthood up to 60 years of age. The study found that the prevalence of marijuana use among students in 8th, 10th, and 12th grades was 0.6%, 3.2%, and 5.8%, respectively, while the rates of alcohol consumption for the same age groups were 7%, 13%, and 26%, respectively. Given the scope of the problem, it is important to ensure that providers are knowledgeable and adequately trained to utilize available tools such as the CRAFFT.

Through the use of evidence-based screening tools, healthcare providers can identify at-risk patients and implement appropriate interventions. Despite the encouragement for their use in clinical practice, healthcare providers often evaluate substance use but do not always use a validated screening tool (Saunders et al., 2019). This inconsistency in screening using validated tools can result in significant challenges, presenting missed opportunities to identify adolescents at-risk for substance use disorders.

The CRAFFT, created by John Knight, is a quick and reliable screening tool developed to assess drug use, substance-related riding/driving risks, and substance use disorders among adolescents aged 12–21 years (Welsh & Hadland, 2019). According to Gryczynski et al. (2019), each letter of the CRAFFT tool mnemonic represents one of the six yes/no questions concerning risky substance use behaviors (Car, Relax, Alone, Forget, Friends, and Trouble). These questions follow three pre-screening questions regarding the patient’s use of alcohol, marijuana, or other substances in the previous year. In the pre-screening questionnaire (Part A), if the patient answers “0” days, only the CAR section of the CRAFFT screen is administered. If the patient's pre-screening response was “yes” with a score of 2 and above, all sections of the CRAFFT are completed, indicating a positive screening result and the necessity for further assessment and therapeutic intervention. Hospital and community health settings have included this tool in their universal screening programs because of its effectiveness in creating a foundation for early intervention (Crafft.org, n.d.).

Consequences of the Problem

Lisdahl et al. (2018) theorized that failing to address substance use in adolescents could lead to a profound emergence of substance use problems throughout their lives. Substance use during adolescence has immediate and long-term consequences on physical, mental, and social health (Winer et al., 2022). Early exposure to substance use in adolescents, who are already in a vulnerable developmental stage, poses a high risk of developing substance use disorders, which are also associated with neurodevelopmental, behavioral, and cognitive changes (Lisdahl et al., 2018). Consequently, drug use results in adverse psychosocial consequences, including violence, criminal activity, imprisonment, academic or occupational underachievement, difficulties in maintaining healthy relationships, and legal problems (Krist et al., 2020). Certain substances,

such as tobacco, alcohol, and marijuana, can lead to eating and sleep disorders (Eskander et al., 2020; Kwon et al., 2019). Research also indicates that adolescent substance use may have adverse effects on their mental health, resulting in a higher likelihood of experiencing depression, anxiety, psychosis, mood disorders, and even suicidal tendencies (Gobbi et al., 2019).

Knowledge Gaps

Substance use disorders are characterized by excessive behavioral patterns that involve a combination of cognitive, behavioral, and physiological symptoms. Individuals with this disorder often spend significant time and effort obtaining their substance of choice (American Psychiatric Association [APA], 2013). In previous years, eight million individuals aged 12 years and above satisfied the diagnostic criteria for drug misuse or dependence (United States Preventive Services Taskforce, 2020). Providers have acknowledged the seriousness of this problem and the need to screen adolescents for substance-related uses. According to Palmer et al. (2019), most primary care physicians (PCPs) (about 84%) reported discussing the dangers of substance use disorders in teenagers and young adults. However, 27% of these providers reported never using a validated or unvalidated screening tool to ensure consistent patient screening. Despite the consequences of adolescent substance use, providers lack knowledge of evidence-based screening tools and guidelines. Furthermore, a recent study found that 50–86% of pediatricians routinely screen for substance abuse, although most use their clinical impressions rather than validated screening tools (Krist et al., 2020).

Proposed Solution

To promote overall health and well-being of adolescents, it is imperative to re-educate healthcare providers in the use of the CRAFFT tool and encourage its consistent application

during to screen for substance use. Healthcare providers must rely on evidence-based practice (EBP) guidelines, and the failure to utilize proper screening tools and a lack of knowledge may hinder the identification of at-risk youths. To address this issue, it is essential to equip providers with comprehensive knowledge and confidence in utilizing the CRAFFT tool through targeted education. By using the CRAFFT screening tool, healthcare providers can provide timely interventions for adolescents and young adults who engage in substance use, facilitating their connection to suitable treatment options (Camenga et al., 2022).

Summary of the Literature

A literature review was conducted prior to the planning and implementation of this evidence-based project. Relevant and current resources were located from 2018-2023. The selected articles focused on US-based studies within a five-year timeframe. The Population, Intervention, Comparison, Outcome (PICO) format guides the search strategy for the review to find matching articles using databases such as CINAHL Complete, PsycINFO, Google Scholar, PubMed, and Florida International University. Key terms used include variations of ‘adolescents,’ ‘teens,’ ‘youth,’ ‘substance abuse,’ ‘drug use,’ ‘screening,’ and ‘CRAFFT.’ Articles were included if they were related to keywords and screening. This section provides an in-depth analysis to support this quality improvement initiative.

Substance Use and Screening

The definition of substance use varies and is influenced by theoretical viewpoints, treatment objectives, cultural backgrounds, and types of substances involved (Ester Moon et al., 2020). However, it is possible to manage and reduce the negative effects of substance use. Looking at substance use from a different angle, it can be seen as a process that is intricate and

constantly changing (Ester Moon et al., 2020). As most adult Substance Use Disorders (SUDs) begin during adolescence, screening is crucial in adolescents. Early intervention during this developmental stage can prevent minor issues from escalating into more severe problems (Simon et al., 2020; Sterling et al., 2022). Screening, as explained by Speechley et al. (2017), is the act of providing one or more procedures, tests, or exams to individuals who are believed to be healthy and asymptomatic. The goal is to identify potential prognostic factors such as risk factors, precursors, or hidden pathologies.

In addition, screening for substance use during routine care can help clinicians identify early signs of substance use and provide anticipatory guidance, even for those who do not screen positive (Sarkar & Friedmann, 2023). Hunt et al. (2022) believed in a multisite campaign to detect and address adolescent drug use in various settings. The authors conducted screenings in various locations, including primary care, pediatric practices, community-based organizations, schools, juvenile justice programs, and community behavioral health organizations. This highlights the opportunity of expanding substance use screening and interventions for young people across multiple settings. The evaluation also revealed that the implementation challenges are diverse and dependent on location.

Simon et al.'s (2020) quality improvement study demonstrated that utilizing a reliable measure to identify substance use, misuse, and substance use disorders is considerably more successful than relying on unverified tools or healthcare professionals' intuition. Kuhns et al. (2020) completed a chart review that discovered structured screening is not widely implemented, possibly due to a lack of standardized screening tools. Failure to use a consistent screening tool may lead to biased screening and low screening rates.

Screening Tools

Various screening tools are available for assessing substance use among adolescents including the CRAFFT (Fernald et al., 2023); The National Institute of Alcohol Abuse and Alcoholism (NIAAA) 2-question alcohol screen; Brief Intervention (S2BI); Brief Screener for Tobacco, Alcohol, and Drugs (BSTAD); Tobacco, Alcohol, Prescription Medication, and Other Substances (TAPS); HEEADSSS (home, education/employment, eating, activities, drugs, sexuality, suicide/depression, safety from injury/violence); and the SSHADESS (strengths, school, home, activities, drugs/substance use, emotions/eating/depression, sexuality, safety) (Kuhns et al., 2020; Levy et al., 2023; Simon et al., 2020). Compared to other screening tools, the CRAFFT offers several advantages. It is a time-efficient screening tool suitable for administration during an initial interview, which is tailored specifically for adolescents (Song et al., 2019). The CRAFFT screening tool is publicly available, clinically relevant, and thoroughly researched (Knight et al., 1999, as cited in Lee et al., 2021). It detects substance abuse or disorders with excellent sensitivity and specificity; at its predetermined cutoff point of 2, the CRAFFT instrument has shown great sensitivity and specificity in identifying adolescents in need of additional testing (Lee et al., 2021; Shenoj et al., 2019). The National Institute of Alcohol Abuse and Alcoholism Youth Screening Guide, the Center for Medicaid and CHIP Services' Early and Periodic Screening, Diagnostic and Treatment Program, and the American Academy of Pediatrics' Bright Futures Guidelines support the use of the CRAFFT instrument (Boston Children's Hospital, 2018, as cited in Fernald et al., 2023). When assessing substance use in adolescents aged 12-21, the CRAFFT instrument can be a useful approach to regular practice in any outpatient context (Fernald et al., 2023).

A qualitative study conducted by Johnson et al. (2020) in a psychiatric inpatient unit employed the CRAFFT screening tool upon admission by the nursing staff. This study screened 942 adolescents using the CRAFFT. Chart review findings indicated that 83.2% of adolescents had a CRAFFT score of either 0 or 1. This score indicates that they had used either alcohol or cannabis in the past year without significant negative outcomes. In contrast, the remaining 16.8% (n = 158) scored two or higher, indicating that they had used alcohol or cannabis within the past year and experienced a range of serious negative outcomes.

Similarly, a recent quality improvement study by Monico et al. (2019), implemented universal screening for alcohol and drug use using CRAFFT. In this study, medical assistants administered the CRAFFT at every visit during triage, across seven urban Federally Qualified Health Center clinics over a 13-month period. An electronic chart found that out of 6,346 visits, 76.6% of patients between the ages of 12 and 17 were screened for problematic substances using the CRAFFT, while 23.4% were not. The authors highlighted the importance of routine screening to facilitate the early detection and intervention of substance use among adolescents, advocating for regular screening at every visit.

A quantitative study by Stanhope et al. (2018) across 27 mental health organizations, screening 2,873 adolescents for alcohol and other drug use. The study revealed that 52% of adolescents received a positive screen for drug and alcohol use when following guidelines, which include the use of the CRAFFT screening tool. To measure effectiveness, the authors used two screening methods, one of which was CRAFFT, and discovered that the CRAFFT screening tool demonstrated good discriminative qualities for identifying teenagers between the ages of 14 and 18 years who are at high risk for SUDs.

In a separate quality improvement project, Yurasek et al. (2021) utilized both the CRAFFT and the MAYSI-2 alcohol/drug use subscale as screening instruments for substance use during the intake process overseen by staff. Data from a chart review of 348 adolescents indicated that 38.5% had positive results on the CRAFFT, whereas only 0.3% had positive results on the MAYSI-2 alcohol/drug scale alone. The authors concluded that the CRAFFT might be a better tool for precisely identifying at-risk adolescents.

Issues Related to Screening

Palmer et al. (2019) conducted a mixed-methods study involving 75 healthcare providers interviewed between July and October 2015 using a 25-item survey. The study found that 41 providers did not use a validated tool when screening their patients for SUDs. Among the remaining providers, 28% used a standard screening instrument only for patients believed to be at risk, while 69% used a validated tool such as CRAFFT or CAGE. The results also identified lack of reimbursement for substance use screening as a significant factor contributing to its decreased use. Similarly, Levy et al. (2022) conducted a convenience sample study to identify barriers to administering screening. Their survey found that providers experienced several challenges, including insufficient time to conduct screenings, insufficient time to respond to screening results, and a lack of support services for screening.

Calihan and Levy's (2023) investigated the implementation of evidence-based screening tools in electronic medical records (EMRs) within primary care. They found that implementing these tools, combined with brief provider training sessions lasting 1-2 hours, led to an increase in substance use screenings. However, the authors cited that the primary obstacle for healthcare providers is lack of time. Additionally, they discovered that unfamiliarity with screening tools,

inadequate knowledge of substance use, insufficient training for addiction, lack of staff or technology for screening, and confidentiality concerns were also common barriers.

PICO Clinical Question & Objectives

This quality improvement project aims to answer the following question: Among psychiatric outpatient mental health providers, does providing education and implementation of the CRAFFT screening tool into the daily workflow, compared with no training, enhance knowledge and confidence in using the CRAFFT screening tool?

Population (P): Psychiatric outpatient mental health providers in a private practice setting

Intervention (I): CRAFFT tool education and implementation into daily workflow.

Comparison (C): No training and implementation.

Outcome (O): Enhanced knowledge and confidence using the CRAFFT screening tool among healthcare providers to assess adolescent substance use, enhanced attitudes towards managing patients with substance use, and improved screening practices.

Primary DNP Project Goal

The repercussions of substance use are associated with adverse health events that can be experienced by individuals of all ages. The goal of this quality improvement project was to enhance knowledge and confidence by using the CRAFFT screening tool among healthcare providers when assessing adolescent substance use and to increase its implementation. In addition, the project sought to promote best screening practices at every visit. The primary emphasis was screening using the evidenced-based CRAFFT screening tool, endorsed by the American Academy of Pediatrics. The project was conducted in an outpatient psychiatric private

practice setting in Miami, Florida. An assessment in this setting revealed the need for a standard screening tool, as no such tool is currently in use despite the presence of an EMR. Providers rely on standard yes or no responses from clients to assess substance use. The American Academy of Pediatrics recommends the use of evidence-based guidelines and screening tools to screen for substance use. Current literature supports the practice of screening all patients for substance use, regardless of age or history of substance use. Routine screening for substances is crucial for the proper treatment and referral of adolescents.

The primary goal of this quality improvement project is to enhance knowledge and confidence using the CRAFFT screening tool among healthcare providers to assess adolescent substance use and improve screening within practice by using an evidence-based screening tool endorsed by the American Academy of Pediatrics. This includes obtaining a baseline of screening practices pre- and post-intervention, and educating current providers about CRAFFT. By achieving this project goal, clinicians will be able to improve their knowledge and confidence by using the CRAFFT screening tool within the practice and identify adolescents who may be at risk for substance use. The SMART goals for this quality improvement project are as follows:

Specific: To enhance provider knowledge and confidence using the evidenced-based tool CRAFFT and identify adolescents who may be at risk for substance use.

Measurable: Collect provider knowledge of CRAFFT and evaluate the effectiveness of an educational intervention on substance use, with a focus on the CRAFFT tool.

Achievable: Create and present an educational module on CRAFFT to enhance knowledge and confidence in screening for substance use.

Relevant: Screening is important because it can identify adolescents who are at risk of substance use.

Time: The goal is to get approval from IRB by Spring 2024 and complete the project by Summer 2024

Definition of Terms

Adolescence: From the ages of 10 to 19, adolescence is the stage of life that falls between childhood and adulthood, a special period in human development, and a crucial period for setting the groundwork for long-term health. (WHO, 2023).

Substance: Anything that may be ingested, breathed, injected, or otherwise taken into the body has the potential to cause dependency and other negative consequences such as alcohol, tobacco products, narcotics, and inhalants (CDC, 2023).

Substance Use: Refers to the use of specific substances such as alcohol, tobacco products, narcotics, inhalants, and other chemicals that can enter the body through injection, inhalation, or other means that may cause dependence or other negative effects (CDC, 2023).

Screening: a distinction between the clinical practice of an individual and the public health practice of an entire population (Speechley et al., 2017).

Screening Tools: A thorough guide along with links to evidence-based screening and assessment resources that can be utilized with patients starting in adolescence (NIDA 2023).

CRAFFT: For youths aged 12 to 21 years, the CRAFFT is a quick and reliable health screening test that can be used to determine drug use, substance-related riding/driving risk, and substance use disorder (CRAFFT, n.d.).

Conceptual Underpinning and Theoretical Framework

This Doctor of Nurse Practitioner (DNP) project is guided by The Donabedian model created by physician Avedis Donabedian (1919–2000), emphasizing the evaluation of the quality of care. The Donabedian model is a quality improvement structure that can improve clinical processes, patient care, and patient outcomes. In 1966, Donabedian introduced this well-known model of quality care, providing structure for improving and evaluating quality assurance (Naz et al., 2022). This model includes three components: structure, processes, and outcomes. An important aspect of this framework is the linear relationship between these three components, where structure affects process, and process affects outcome (Naz et al., 2022). For this project, focusing on structure involves increasing the availability of screening tools to assess patients. The process involves screening patients using the CRAFFT screening tool. At the same time, the outcomes would focus on identifying adolescents at risk of substance use and improving screening within the practice.

Description of the Program Structure

This outpatient private practice office is located centrally in Miami, Florida, and currently sees psychiatric patients from different age groups with various serious mental illnesses. The practice focuses on providing the highest quality of care for the patients they serve within the community. The practice believes that its core is data-driven with sound science and evidence. The organization collaborates with different organizations within the community, including the school district. The culture within the organization has one goal centered on patient care through the services provided. This setting includes physicians, nurse practitioners, and therapists.

SWOT

SWOT analysis is a widely used strategy formation tool that considers both internal and external factors (Teoli et al., 2022). SWOT focuses on identifying a particular goal or a project's strengths, weaknesses, opportunities, and threats. In the context of this project, which aims to enhance knowledge and confidence in screening for substance use using the CRAFFT, a SWOT analysis was conducted. Following discussions with the providers in private practice, where this project will take place, the SWOT analysis results are as follows.

<p><u>Strengths</u></p> <ul style="list-style-type: none"> • Clinicians that include, MD, NPs, and Therapist/Social workers • Electronic Medical Records • Accessibility to practice location 	<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> • Lack of adequate time for screening • Inconsistent screening • Lack of evidenced-based tool for screening. • New Management/ Business Restructuring
<p><u>Opportunities</u></p> <ul style="list-style-type: none"> • Improve substance use screenings. • Increase patients' awareness to substance use. • Improve patient outcomes. 	<p><u>Threats</u></p> <ul style="list-style-type: none"> • Lack of time • Resistance to using screening tool. • Provider perception on available tool • Lack of patient participation

Methodology

Setting and Participants

This DNP project was conducted in a private outpatient practice setting in Miami, FL. This setting sees patients from different age groups and serves a culturally diverse population with ages ranging across their lifespan. Participants were a convenience sample of providers from within the practice, including psychiatric nurse practitioners and psychiatrists. The clinic offers various services such as cognitive behavioral therapy, group therapy, counseling, medication management, and psychiatric evaluations.

Description of Approach and Project Procedures

An experimental design consisting of pre-and post-tests was adopted for this quality improvement project. Potential candidates were selected within the practice, and the aim was to train healthcare providers to enhance their knowledge and confidence in using the CRAFFT tool. The effectiveness of the training in assessing adolescents for substance use using CRAFFT was then evaluated. Participation in the project was voluntary, and participants received instructions on how to engage in the project.

The DNP candidate developed a survey that included a demographic profile to collect data on age, gender, ethnicity, professional role, and years of experience working with adolescents. The survey comprised seven knowledge-based questions on the CRAFFT tool, four questions on substance use screening practices, and ten questions adopted from the Substance Abuse Attitude Survey (SAAS). The SAAS was developed by Chappel et al. in 1985 to measure the attitudes of providers towards patients who use substances.

Recruitment involved a standardized recruitment email (Appendix C) with instructions on how to contact the DNP student for voluntary participation. The participants were asked to complete the pre-test questions via a Qualtrics link, which took 5-20 minutes. Following the pre-test, an educational intervention focused on the CRAFFT tool was conducted via a PowerPoint presentation. The educational intervention was conducted in-person, allowing participants increased involvement and the ability to easily ask questions. The presentation consisted of targeted education for psychiatric providers regarding adolescent substance use. The information was drawn from the literature review, and was therefore the most recent, evidence-based data on the prevalence of substance use in adolescents, provider behaviors and attitudes towards substance use screening, and best screening practices for substance use. Providers were also educated on the new practice policy where adolescents will be given the CRAFFT screening tool at every appointment. Providers were educated on the interpretation of results and subsequent steps for positive screening. Providers completed the post-test approximately one week after the educational intervention to evaluate changes in knowledge, attitudes, and substance use screening practices. The DNP candidate analyzed the pre-test and post-test results to assess the impact of the educational intervention.

Protection of Human Subjects

Institutional Review Board (IRB) approval (Appendix A) was obtained from Florida International University, Miami, Florida, USA, prior to commencing this quality improvement project. Additionally, the DNP student received authorization from the medical director at an outpatient psychiatric facility in Miami, Florida to conduct a quality improvement project. Participants were selected from a convenience sample within the practice and recruited via email. Participation was voluntary, and formal consent was not required for this quality improvement

initiative. Privacy and confidentiality were of utmost importance; therefore, all data collected by the DNP candidate were confidentially stored. This project was committed to the highest ethical standards and took measures to protect human subjects. The data collected by the DNP student were used solely for improvement purposes, and only authorized parties were given access to the information.

Data Collection

The data collected for this project includes a demographic profile, the abbreviated SAAS, provider substance use screening practices, and knowledge of the CRAFFT tool. The demographic data collected from the providers included gender, age, race, professional role, and years of experience. Data collection was streamlined using a pretest–posttest design questionnaire. To evaluate provider attitudes towards substance abuse, the SAAS (Appendix D), validated and endorsed by provider communities (Chappel et al., 1985), was utilized. The SAAS consists of twenty-five items rated on a five-point Likert scale ranging from "strongly disagree" to "strongly agree" (Chappel et al., 1985); however, for the purpose of this study, only ten questions were selected to collect data. The knowledge-based questionnaire was based on the CRAFFT.

Results

Participants

A total of 8 participants consented to participate in the project. Of the participants, eight completed the demographics, seven completed the pretest only, and six completed the project in its entirety. The demographic data are summarized in Table 1. Participants' ages ranged from 30 to above 60 ($M=2.0$, $SD=0.33$). The sample consisted of more female ($n=6$, 75%) than male

participants (n=2, 25%). In terms of racial background, most of the participants identified as African American (n=4, 50%), followed by white (n=2, 25%). The participants included psychiatrists (n=1, 25%) and psychiatric nurse practitioners (n=7, 75%). The providers reported varying years of experience: less than one year (n=2, 25%), one–five years (n=4, 50%), and over five years (n=2, 25%).

Table 1.

Demographics Characteristics

Variable	N=8
Age of Participants %	
36-60	87.50 %
Above 60	12.50 %
Gender	
Male	25%
Female	75%
Ethnicity	
White	25%
Black	50%
Other	12.5%
Prefer not to answer	12.5%
Years in Practice	
Less than one year	25 %
One-year to five years	50 %
Over five years	25%

Substance Use Screening Practices

A total of seven providers completed the survey on substance use screening practices. Pre-Intervention, all providers reported conducting screening at every visit (n=7). The methods used included clinical interviews (n=5) and urine drug screens (n=2). Notably, none of the providers indicated using standardized screening tools. Confidence in screening for substance use on a scale of 0-10 had a mean score of 6.29 ($SD= 1.98$). Post-intervention, all providers

reported screenings at every visit (n=6), clinical interviews (n=2), urine drug screen (n=2), and standardized method (n=2). Confidence in screening for substance use on a scale of 0-10 mean score of 8.83 ($SD=0.81$).

Table 2 illustrates barriers to screening. In response to the select all that apply responses, most of the providers selected client resistance to discussing substance use (25.17 %), followed by parents' resistance to discussing substance use (25%), lack of time (16.67%), lack of adequate training in available screening methods (16.67%), stigma associated with substance use (8.33%), lack of access to screening tools (4.17%), and others (0%).

Table 2.

Barriers to Screening

Responses	Pre-Intervention%	Post Intervention %
Lack of time.	16.67 %	21.73 %
Lack of adequate training in available screening methods.	16.67%	14.27%
Parents resistance to discuss substance use.	25.00%	23.57%
Client resistance to discuss substance use.	29.17%	33.53%
Stigma associated with substance use.	8.33%	4.27%
Lack of access to screening tools	4.17%	2.63%
Other	0%	0%

Knowledge About CRAFFT Tool Findings

Pre- and post-test scores were compared with those of the participants who completed the protocol in its entirety. From the seven questions selected in Appendix D, total pre- and post-test means, standard deviation, and percentage change can be found in Table 3. Prior to the

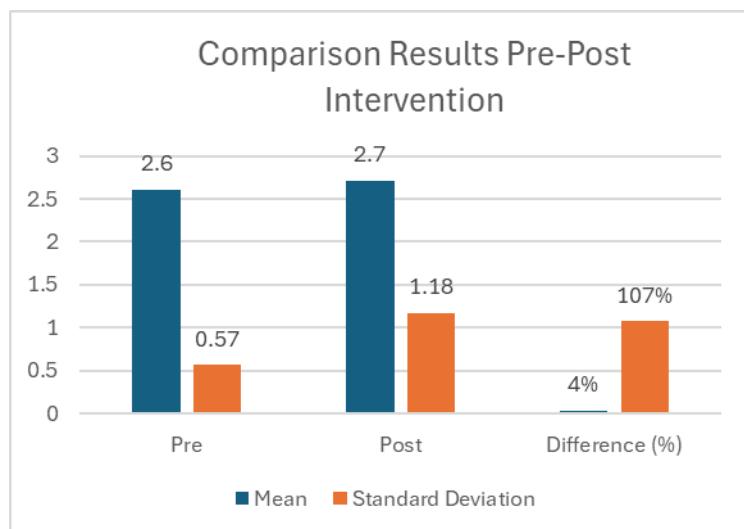
intervention, the providers exhibited a baseline knowledge of the CRAFFT tool. However, specific details about the tool and its application, including the targeted population, were lacking. Following the intervention, significant improvements in knowledge were observed. All participants showed an improvement in knowledge of the CRAFFT tool as demonstrated in Table 3. For example, there was a 15% increase in correct responses to “Q4—*What does the acronym CRAFFT mean?*” (Pre M = 2.57, SD =0.73, Post M= 3.0, SD=0). In comparing the responses from questions one through seven, the total mean and standard deviation before intervention were (M = 2.6, SD = 0.57), and the total post-test mean and standard deviation after (M = 2.7, SD = 1.18). Table 3 summarizes the average means and standard deviation before and after the intervention, while the comparison data are listed in Figure 1.

Table 3.

	Mean	Standard Deviation
Pre-Intervention Knowledge	2.6	0.57
Post Intervention Knowledge	2.7	1.18
Difference (%)	4%	107%

Figure 1.

Comparison Results Pre-Post Intervention



Providers' Attitude

The Substance Abuse Attitude Survey was administered during the pre- and post-tests to assess providers' attitudes towards substance use. There were noted variations in providers' attitudes between pre-and post-tests. Located in (Appendix D) Substance Abuse Attitude Survey (SAAS) 10 questions were selected and included to assess providers' attitudes in response to substance use. Pre and post-test responses from the providers varied. The mean scores for questions 1 -10 showed significant differences, both negative difference and positive differences, compared to baseline scores. Comparison results with percentage changes are shown in Table 4.

The data collected showed positive and negative responses in attitudes from the providers to the questions. For instance, questions 1, 6-9 “*Q1: Physicians who diagnose alcoholism early improve the chance of treatment success*”, “*Q6: Alcohol and drug abusers should only be treated by specialists in that field*”, “*Q7: Smoking leads to marijuana use, which in turn leads to hard drugs*”, “*Q8: Drug addiction is a treatable illness*”, “*Q9: An alcohol or drug dependent person cannot be helped until he/she has hit rock bottom*”. The responses from the providers for these

showed positive results, while the responses from pre and post-test for questions 2-5 and 10 showed negative results as shown in Table 4.

Table 4.

Substance Abuse Attitude Survey (SAAS) in (Appendix D).

Question	1	2	3	4	5	6	7	8	9	10
Pre-Mean	3.57	2.86	2.14	2.29	2.57	2.57	3.29	3.86	2.71	2.43
Post-Mean	5.0	2.0	1.83	1.83	2.33	3.0	4.0	4.50	3.17	2.0
Difference (%)	33%	-30%	-14%	-20%	-9%	17%	22%	17%	17%	-18%

Discussion

Healthcare providers have the ability to reduce the effects of substance use by screening each adolescent and providing education about the risks of substances. Results from this DNP project suggest there is continuous room for improvement as well as the implementation of a standardized approach to screening for substance use. The Donabedian Theoretical Model guided this quality improvement project with a focus on structure, processes, and outcomes. The results reinforce that training and educating healthcare providers can improve the quality of care provided to patients, notably with screenings for substance use. Not only that, but following evidence-based guidelines, such as employing the CRAFFT tool, can lead to better health outcomes. This highlights the gap where evidence-based screening tools, such as the CRAFFT, could improve clinical practice, aligning with substance use screening recommendations from

the literature. This DNP project found that most providers do not currently utilize a standardized screening approach; instead, they are primarily using clinical interviews and urine drug screening as screening methods. This is in line with results from the review of literature where it was noted that providers are not using validated screening tools. For example, Palmer et al. (2019) found that even though providers had knowledge of validated screenings, they did not use these validated tools when screening for substance use.

The pre-intervention phase of this project found that almost all providers utilized clinical interviews in screening for substance use (n=5), with a small percentage using urine as a drug screening method (n=2). The average confidence level in conducting screenings was relatively moderate, with a mean score of 6.29 (SD=1.98) on a 0-10 scale. Post-intervention, there was a noticeable change in screening practices. While some providers continued to report using clinical interviews (n=2) and urine drug screens (n=2), there was an increase in the use of the CRAFFT screening tool (n=2). Providers also reported an increase in confidence levels in conducting screenings, with the mean score rising to 8.83 (SD=0.81). These findings indicate that the intervention not only increased the use of standardized screening tools, but also enhanced provider confidence in substance use screening practices.

In terms of knowledge, pre-intervention survey results demonstrated that providers already had baseline knowledge of the CRAFFT tool however, with a mean score of 2.6 (SD=0.57) there was a need for improvement. Providers had proper knowledge of utilizing the CRAFFT tool and incorporating it into standardized care when necessary. Post-intervention, there was a notable increase in the correct responses, including a 15% improvement in understanding the meaning of the acronym. The overall knowledge post-intervention improved slightly to a mean of 2.7 (SD = 1.18). Although this was a modest change, there was a change in

the standard deviation by 107% suggesting that some participants gained considerable knowledge. These results highlight the effectiveness of the educational intervention in increasing knowledge of substance use screening as well as the CRAFFT screening too.

Regarding the Substance Abuse Attitude Survey, the observed changes in attitudes post-intervention were not statistically significant, suggesting that while there were improvements, they may not have been large enough within the sample size to reach statistical significance. However, the results did reveal notable variations in responses with both positive and negative shifts in attitudes. While the results to some questions indicate increased awareness and supportive attitudes towards early diagnosis and treatment of substance use disorders, the answers to other questions had negative shifts suggesting that some providers may have reservations about specialist treatment or the progression from lighter to harder drug use. These mixed results underscore the complexity of changing attitudes towards substance use and emphasize the need for continued education in this area.

Screening practices pre-intervention were based on clinical interviews and drug screenings; there was no standardized format, such as CRAFFT, used to assess substance abuse. Despite efforts to educate the providers on the available tools and emphasize the importance of implementing them in everyday clinical practice, post-intervention, some providers were reluctant to adopt a standardized approach primarily due to lack of time, and this is supported by findings from Levy et al. (2023) study identifying insufficient time to conduct screenings. The responses provided remained the same, which would suggest hesitancy in using a more meaningful and evidence-based approach. However, regarding barriers to screening, both pre-intervention and post-intervention responses, even though this is not statistically significant, the

results from the responses reflected providers reporting more access to screening tools and less stigma associated with substance use.

Limitations

A limitation of this study was the small sample size. The sample initially started with eight participants, eight of whom completed the demographics, seven of whom completed the pre-test, and six of whom completed the post-test. A small sample size created less variation in the results. Additionally, a follow-up as to why providers were only using two methods to screen rather than an evidence-based screening tool. Even though providers were able to gain knowledge, because of the short duration of the project, seeing whether there was an improvement in screening practices was unsuccessful. In addition, more time would have helped encourage screening. Another limitation is that this project relied on the provider's self-report of screening practices; this could be subjected to some inconsistencies or bias in the data in relation to appropriate screening methods that are appropriate or best for screening adolescents when addressing substance use. Despite the limitations, this quality improvement project provided insight into screening practices and why more research may be needed in addressing better measures when screening adolescents using evidence-based screening tools.

Plans for Dissemination

Disseminating the results of this project will inform stakeholders of the current state of their practice and opportunities for improvement. It is important to disseminate the findings to the organization and the targeted audience. In this case, the targeted audience was providers such as psychiatrists and psychiatric nurse practitioners who are involved in providing psychiatric services to adolescents. The results of this quality improvement project were presented to the

providers; additional dissemination will occur through an oral presentation in a public setting and at the FIU DNP symposium.

Implications for Advanced Practice Nursing

The CRAFFT screening tool has significant potential in advanced nursing practice because advanced practice nurses can improve the early detection and management of adolescents with substance use disorders. The findings from this project have many positive implications. The findings indicate that education on evidence-based tools such as CRAFFT can be effective and can ultimately reduce and improve the screening process to improve the overall health and well-being of adolescents who may be at risk for substance abuse. There is evidence to show that adolescents at an early age are exposed to alcohol and tobacco products; It is important to consider the role different screening tools play in improving outcomes such as CRAFFT (Fernald et al., 2023; Thomasius et al., 2022). However, while knowledge of the CRAFFT screening tool improved, screening practices did not improve because of existing barriers, such as lack of time and patient resistance to discussing substance use. In this event, more research should be done to understand why these barriers to screening continue to exist.

Professional organizations such as the American Academy of Pediatrics recommend screening during routine clinical visits (Krist et al., 2020). They can integrate the CRAFFT tool into routine assessments, create care plans tailored to patient screening results, and provide referrals for appropriate services. Advanced practice nurses can also collaborate by continuing to train healthcare providers on how to use the CRAFFT screening tool properly. Advanced practice nurses can also continue to lead research evidence projects in clinical practice and measure the outcomes of patient improvement using the CRAFFT tool. This will continue to help improve overall health and well-being, patient outcomes, and reduce the increase in adolescents with

substance use disorders. This educational intervention also demonstrates that small interventions like this one can have a positive effect. Also, this can have good implications for the overall organization in committing to having this screening tool available at each visit for lasting outcomes.

Conclusion

This quality improvement project aimed to enhance the knowledge and confidence in the CRAFFT tool for screening adolescents for substance use, as well as implementation of the CRAFFT tool into daily practice routing, making it available at the time of signing in. Education on the CRAFFT screening tool was employed over a period of time, and pre-knowledge and post-knowledge were assessed before and after intervention to assess for improvement. The literature review in this QIP provides critical evidence regarding substance use among adolescents as well as screening tools available to aid in screening in daily practice.

The results of this project indicated that the education of the providers resulted in increased knowledge from baseline. Providers' attitudes towards substance use, however, varied. It is important to note the barriers as seen in the results when screening adolescents as reported by the providers. Substance use can be complex, especially when managing adolescents. Future improvements are needed to continually improve screening within practice to maximize and improve patient outcomes. This correlates with needing further research studies to explore the reasons behind the hesitancy and barriers associated with employing evidence-based screening tools in daily workflow. Identifying and assessing adolescents in any healthcare setting using the right screening tool, such as the CRAFFT, may ensure less substance use and abuse. Recommendations based on the project included dissemination of results and continuous

education on screening tools available. It is important for healthcare providers to continue to screen adolescents using evidence-based approaches.

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.)*. American Psychiatric Publishing.
- Bunik M., Hay, W.W., Levin, M.J., Abzug, M.J. (2023). *Current diagnosis & treatment pediatrics*. (26th ed.). McGraw Hill/Medical Publishing.
- Calihan, J. B., & Levy, S. (2023). Substance use screening, brief intervention, and referral to treatment in pediatric primary care, school-based health clinics, and mental health clinics. *Child and Adolescent Psychiatric Clinics of North America*, 32(1), 115–126. <https://doi.org/10.1016/j.chc.2022.08.002>
- Camenga, D. R., Hammer, L. D., & Committee on Substance Use and Prevention, and Committee on Child Health Financing. (2022). Improving substance use prevention, assessment, and treatment financing to enhance equity and improve outcomes among children, adolescents, and young adults. *Pediatrics*, 150(1), e2022057992.
- Centers for Disease Control and Prevention (CDC). (2023). Substance use. <https://www.cdc.gov/nchs/hus/sources-definitions/substance-use.htm>
- Chappel, J. N., Veach, T. L., & Krug, R. S. (1985). The substance abuse attitude survey: An instrument for measuring attitudes. *Journal of Studies on Alcohol*, 46(1), 48-52.
- CRAFFT. (n.d.). About the craft. <https://craftt.org/about-the-craftt/>
- Eskander, N., Chakrapani, S., & Ghani, M. R. (2020). The risk of substance use among adolescents and adults with eating disorders. *Cureus*, 12(9). <https://doi.org/10.7759/cureus.10309>

- Esther Moon, S. J., & Lee, H. (2020). Relapse to substance use: A concept analysis. *Nursing Forum*, 55(3), 523-530. <https://doi.org/10.1111/nuf.12458>
- Fernald, M., Cassidy, B., Ren, D., Mitchell, A., & Kameg, B. (2023). An evaluation of documentation and follow-up on the use of SBIRT in an outpatient behavioral health clinic through the use of the CRAFFT tool. *Journal of Child & Adolescent Psychiatric Nursing*, 36(1), 28–34. <https://doi.org/10.1111/jcap.12395>
- Gobbi, G., Atkin, T., Zytynski, T., Wang, S., Askari, S., Boruff, J., Ware, M., Marmorstein, N., Cipriani, A., Dendukuri, N., & Mayo, N. (2019). Association of cannabis use in adolescence and risk of depression, anxiety, and suicidality in young adulthood: A systematic review and meta-analysis. *JAMA Psychiatry*, 76(4), 426-434. <https://doi.org/10.1001/jamapsychiatry.2018.4500>
- Gryczynski, J., Mitchell, S. G., Schwartz, R. P., Kelly, S. M., Dušek, K., Monico, L., Brown, B. S., Oros, M., & Hosler, C. (2019). Disclosure of adolescent substance use in primary care: Comparison of routine clinical screening and anonymous research interviews. *The Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine*, 64(4), 541. <https://doi.org/10.1016/j.jadohealth.2018.10.009>
- Hayde, N. (2021). Substance use and abuse in pediatric transplant recipients: What the transplant provider needs to know. *Pediatric Transplantation*, 25(1), e13877. <https://doi.org/10.1111/petr.13877>
- Hunt, D., Fischer, L., Sheedy, K., & Karon, S. (2022). Substance use screening, brief Intervention, and referral to treatment in multiple Settings: Evaluation of a national

- initiative. *The Journal of adolescent health: Official Publication of the Society for Adolescent Medicine*, 71(4S), S9–S14. <https://doi.org/10.1016/j.jadohealth.2022.03.002>
- Johnson, Lapomardo, A., Thibeau, H. M., Altemus, M., Hunt, J. I., & Wolff, J. C. (2020). A process evaluation of a substance use brief intervention for adolescents in a psychiatric inpatient program. *Substance Abuse: Research and Treatment*, 14, 117822182093666–1178221820936666. <https://doi.org/10.1177/1178221820936666>
- Johnston L.D., Miech R. A., O'Malley P.M., Bachman J. G., Schulenberg J.E., & Patrick, M. E. (2021). 2021 Overview the key findings on adolescent drug use. *Monitoring Future National Survey Result on Drug Use 1975–2021*. <https://monitoringthefuture.org/wp-content/uploads/2022/08/mtf-overview2021.pdf>
- Klein, D. A., Paradise, S. L., & Landis, C. A. (2020). Screening and counseling adolescents and young adults: A framework for comprehensive care. *American Family Physician*, 101(3), 147-158.
- Krist, A. H., Davidson, K. W., Mangione, C. M., Barry, M. J., Cabana, M., Caughey, A. B., ... & US Preventive Services Task Force. (2020). Screening for unhealthy drug use: US preventive services task force recommendation statement. *JAMA* 323(22), 2301-2309.
- Kuhns, Carlino, B., Greeley, K., Muldoon, A. L., Karnik, N., Thompson, H., Garofalo, R., & Rahmandar, M. (2020). A chart review of substance use screening and related documentation among adolescents in outpatient pediatric clinics: implications for practice. *Substance Abuse Treatment, Prevention and Policy*, 15(1), 36–6. <https://doi.org/10.1186/s13011-020-00276-4>

- Kwon, M., Park, E., & Dickerson, S. S. (2019). Adolescent substance use and its association to sleep disturbances: A systematic review. *Sleep Health, 5*(4), 382-394.
<https://doi.org/10.1016/j.sleh.2019.06.001>
- Lee, C. A., Smith, D. C., Lanker, A., & Clary, K. L. (2021). Sensitivity and specificity of the CRAFFT to identify heavy cannabis use: Evidence from a large statewide adolescent sample. *Addictive Behaviors, 122*, 107006. <https://doi.org/10.1016/j.addbeh.2021.107006>
- Levy, S., Brogna, M., Minegishi, M., Subramaniam, G., McCormack, J., Kline, M., Menzin, E., Allende-Richter, S., Fuller, A., Lewis, M., Collins, J., Hubbard, Z., Mitchell, S. G., Weiss, R., & Weitzman, E. (2023). Assessment of screening tools to identify substance use disorders among adolescents. *JAMA network open, 6*(5), e2314422.
<https://doi.org/10.1001/jamanetworkopen.2023.14422>
- Levy, S., Wisk, L. E., Minegishi, M., Lunstead, J., & Weitzman, E. R. (2022). Pediatric subspecialist alcohol screening rates and concerns about alcohol and cannabis use among their adolescent patients. *Journal of Adolescent Health, 71*(4), S34–S40.
<https://doi.org/10.1016/j.jadohealth.2022.03.001>
- Lisdahl, K. M., Sher, K. J., Conway, K. P., Gonzalez, R., Feldstein Ewing, S. W., Nixon, S. J., Tapert, S., Bartsch, H., Goldstein, R. Z., & Heitzeg, M. (2018). Adolescent brain cognitive development (ABCD) study: Overview of substance use assessment methods. *Developmental Cognitive Neuroscience, 32*, 80-96.
<https://doi.org/10.1016/j.dcn.2018.02.007>
- Monico, Mitchell, S. G., Dusek, K., Gryczynski, J., Schwartz, R. P., Oros, M., Hosler, C., O’Grady, K. E., & Brown, B. S. (2019). A comparison of screening practices for

adolescents in primary care after implementation of screening, brief intervention, and referral to treatment. *Journal of Adolescent Health*, 65(1), 46–50.

<https://doi.org/10.1016/j.jadohealth.2018.12.005>

Monico, Mitchell, S. G., Gryczynski, J., Dusek, K., Oros, M., Hosler, C., Brown, B. S., Ross, T., & Schwartz, R. P. (2021). Organizational acceptability of implementing SBIRT for adolescents in primary care. *Substance Use & Misuse*, 56(10), 1536–1542.

<https://doi.org/10.1080/10826084.2021.1942054>

National Center for Drug Abuse Statistics. (2023). Drug use among youth: Facts & statistics.

<https://drugabusestatistics.org/teen-drug-use/>

National Institute on Drug Abuse (NIDA). (2023). Screening tools and Prevention.

<https://nida.nih.gov/nidamed-medical-health-professionals/screening-tools-prevention>

Naz, S., Saleem, S., Islam, Z. S., Bhamani, S., & Sheikh, L. (2022). Obstetric triage improvement process using the Donabedian model of quality care: A quality improvement initiative. *BMJ Open Quality*, 11(2). <https://doi.org/10.1136/bmjopen-2021-001483>

Palmer, A., Karakus, M., & Mark, T. (2019). Barriers faced by physicians in screening for substance use disorders among adolescents. *Psychiatric Services*, 70(5), 409-412.

<https://doi.org/10.1176/appi.ps.201800427>

Roberts, A., Rogers, J., Mason, R., Siriwardena, A. N., Hogue, T., Whitley, G. A., & Law, G. R. (2021). Alcohol and other substance use during the COVID-19 pandemic: A systematic review. *Drug and Alcohol Dependence*, 229, 109150.

- Salmanzadeh, H., Ahmadi-Soleimani, S. M., Pachenari, N., Azadi, M., Halliwell, R. F., Rubino, T., & Azizi, H. (2020). Adolescent drug exposure: A review of evidence for the development of persistent changes in brain function. *Brain Research Bulletin*, 156, 105-117. <https://doi.org/10.1016/j.brainresbull.2020.01.007>
- Sarkar, P. R., & Friedmann, P. D. (2023). Screening adolescents for substance use: A four-step approach for trainees. <https://doi.org/10.1007/s40596-023-01848-9>
- Sarvey, D., & Welsh, J. W. (2021). Adolescent substance use: Challenges and opportunities related to COVID-19. *Journal of Substance Abuse Treatment*, 122, 108212. <https://doi.org/10.1016/j.jsat.2020.108212>
- Saunders, E. C., Moore, S. K., Gardner, T., Farkas, S., Marsch, L. A., McLeman, B., & McNeely, J. (2019). Screening for substance use in rural primary care: A qualitative study of providers and patients. *Journal of General Internal Medicine*, 34, 2824-2832.
- Shenoi, R. P., Linakis, J. G., Bromberg, J. R., Casper, T. C., Richards, R., Mello, M. J., Chun, T. H., Spirito, A., & Pediatric Emergency Care Applied Research Network (2019). Predictive validity of the CRAFFT for substance use disorder. *Pediatrics*, 144(2), e20183415. <https://doi.org/10.1542/peds.2018-3415>
- Simon, K. M., Harris, S. K., Shrier, L. A., & Bukstein, O. G. (2020). Measurement-based care in the treatment of adolescents with substance use disorders. *Child and Adolescent Psychiatric Clinics of North America*, 29(4), 675-690. <https://doi.org/10.1016/j.chc.2020.06.006>

- Song, Y., Kim, H., & Park, S.-Y. (2019). An item response theory analysis of the Korean version of the CRAFFT scale for alcohol use among adolescents in Korea. *Asian Nursing Research*, 13(4), 249–256. <https://doi.org/10.1016/j.anr.2019.09.003>
- Speechley, M., Kunnilathu, A., Aluckal, E., Balakrishna, M. S., Mathew, B., & George, E. K. (2017). Screening in Public Health and Clinical Care: Similarities and Differences in Definitions, Types, and Aims – A Systematic Review. *Journal of Clinical and Diagnostic Research: JCDR*, 11(3), LE01. <https://doi.org/10.7860/JCDR/2017/24811.9419>
- Spillane, N. S., Kirk-Provencher, K. T., Schick, M. R., Nalven, T., Goldstein, S. C., & Kahler, C. W. (2020). Identifying competing life reinforcers for substance use in First Nation adolescents. *Substance Use & Misuse*, 55(6), 886-895.
- Stanhope, Manuel, J. I., Jessell, L., & Halliday, T. M. (2018). Implementing SBIRT for adolescents within community mental health organizations: A mixed methods study. *Journal of Substance Abuse Treatment*, 90, 38–46. <https://doi.org/10.1016/j.jsat.2018.04.009>
- Sterling, S., Parthasarathy, S., Jones, A., Weisner, C., Metz, V., Hartman, L., Saba, K., & Kline-Simon, A. H. (2022). Young adult substance use and healthcare use associated with screening, brief intervention and referral to treatment in pediatric primary care. *Journal of Adolescent Health*, 71(4), S15–S23. <https://doi.org/10.1016/j.jadohealth.2021.11.033>
- Substance Abuse and Mental Health Services Administration. (2023). Alcohol, tobacco, and other drugs. <https://www.samhsa.gov/find-help/atod>
- Teoli, D., Sanvictores, T., & An, J. (2022). SWOT Analysis. In *StatPearls*. StatPearls Publishing.

- Thomasius, R., Arnaud, N., Holtmann, M., & Kiefer, F. (2020). Substance-related disorders in adolescence and young adulthood. *Zeitschrift Fur Kinder-Und Jugendpsychiatrie Und Psychotherapie*, 48(6), 448-452.
- Thomasius, R., Paschke, K., & Arnaud, N. (2022). Substance-use disorders in children and adolescents. *Deutsches Ärzteblatt International*, 119(25), 440-450.
<https://doi.org/10.3238/arztebl.m2022.0122>
- United States Preventive Services Taskforce. (2020). Recommendation: unhealthy drug use screening. <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/drug-use-illicit-screening>
- Welsh, J. W., & Hadland, S. E. (Eds.). (2019). Treating adolescent substance use: A clinician's guide. Springer.
- Winer, J. M., Yule, A. M., Hadland, S. E., & Bagley, S. M. (2022). Addressing adolescent substance use with a public health prevention framework: the case for harm reduction. *Annals of Medicine*, 54(1), 2123–2136.
- World Health Organization. (2023). Adolescent health. https://www.who.int/health-topics/adolescent-health#tab=tab_1
- Yurasek, A. M., Kemp, K., Otero, J., & Tolou-Shams, M. (2021). Substance use screening and rates of treatment referral among justice-involved youth. *Addictive Behaviors*, 122, 107036. <https://doi.org/10.1016/j.addbeh.2021.107036>

Appendix A

IRB Approval Letter



MEMORANDUM

To: Dr. Michael Sanchez
CC: Trudian Jones
From: Carrie Bassols, BA, IRB Coordinator *ceb*
Date: May 13, 2024
Proposal Title: "CRAFTing Change: A Quality Improvement Project to Enhance Knowledge and Confidence Assessing Substance Use In Adolescents"

The Florida International University Office of Research Integrity has reviewed your research study for the use of human subjects and deemed it Exempt via the **Exempt Review** process.

IRB Protocol Exemption #: IRB-24-0240 **IRB Exemption Date:** 05/13/24
TOPAZ Reference #: 113948

As a requirement of IRB Exemption you are required to:

- 1) Submit an IRB Exempt Amendment Form for all proposed additions or changes in the procedures involving human subjects. All additions and changes must be reviewed and approved prior to implementation.
- 2) Promptly submit an IRB Exempt Event Report Form for every serious or unusual or unanticipated adverse event, problems with the rights or welfare of the human subjects, and/or deviations from the approved protocol.
- 1) Submit an IRB Exempt Project Completion Report Form when the study is finished or discontinued.

Special Conditions: N/A

For further information, you may visit the IRB website at <http://research.fiu.edu/irb>.

Appendix B

Support Letter



13550 SW 88 Street ~ Suite 180 ~ Miami, FL 33186
Ph: 305.385.9919 ~ Fax: 786.472.4520
www.btpmentalhealth.com

01/29/2024

Michael Sanchez, DNP, APRN, FNP-BC, FAANP
Clinical Associate Professor
Chair, Department of Graduate Nursing
Director, Doctor of Nursing Practice Program
Florida International University
Nicole Wertheim College of Nursing & Health Sciences

Dear Dr. Sanchez,

Thank you for inviting Behavioral Turning Point, Inc. to participate in Trudian Jones DNP project. I understand that Ms. Jones will be performing this project as part of the Doctor of Nursing Practice Program requirements at Florida International University (FIU). After reviewing the proposal titled "CRAFTing Change: A DNP Project to Strengthen Adolescent Substance Use Screening - A Quality Improvement Project." I have warranted Ms. Jones permission to conduct the project at our facility.

We are excited to learn about the outcomes of this quality improvement project. We also expect that Ms. Jones will not disrupt the everyday office operations. Additionally, we trust that Ms. Jones will conduct herself in a professional manner and adhere to the office's standard of care.

Regards,

A handwritten signature in black ink that reads "S. Pascal, MD". The signature is written in a cursive style with a horizontal line underneath.

Shlomo Pascal, MD

Appendix C

Recruitment Letter

Recruitment Email for CRAFFTing Change: A Quality Improvement Project to Enhance Knowledge and Confidence Assessing Substance Use in Adolescents

Dear Providers,

My name is Trudian Jones, I am a student from the Graduate Nursing Department at Florida International University. I am writing to invite you to participate in my quality improvement project. The main goal of this quality improvement project is to enhance knowledge and confidence and to adopt the CRAFFT screening tool among healthcare providers for assessing adolescent substance use in outpatient settings. You are eligible to take part in this project because you are a provider within the practice. I am contacting you with the permission of your medical director.

If you agree to participate in this project, please email me at Tjones158@fiu.edu. You will receive an email with a link to Qualtrics to complete the questionnaires. The questionnaire should take about 15 minutes to complete. You will not only contribute to enhancing knowledge and confidence in assessing adolescent substance use but also gain a deeper understanding of the CRAFFT screening tool. If you choose to participate, you will be asked to complete a pre-test questionnaire, view an educational presentation, and complete a post-test questionnaire two weeks after the educational presentation. All of the activities described are expected to take about 60 minutes over 2 weeks. No compensation will be provided.

It's important to remember that your participation in this study is entirely voluntary. You have the freedom to choose whether to participate. If you have any questions or concerns about the study, please feel free to reach out to me at Tjones158@fiu.edu or 754-235-5458.

Thank you very much.

Sincerely,

Trudian Jones

Appendix D

Pre-test /Post-test

Demographics Questionnaire

Instructions: Please complete the following by selecting the best option below.

Select Age Range (Select one): 18-35 36-60 Above 60

Gender (Select one):

Male Female Other Prefer not to answer.

Race (select one): White Black or African American American Indian or Alaska

Native Other – please specify _____ Prefer not to respond.

Professional Role (Select one): Psychiatrist (MD) Psychiatric Nurse Practitioner

Years of experience in the field of mental health since highest degree?

Less than one year One year to 5 years >Over 5 years

Knowledge Base Questionnaire

- 1) The CRAFFT tool is an efficient and effective evidence-based universal tool used in different healthcare settings to screen and identify substance-related riding/driving risk and substance use disorder.
 - a) True
 - b) False
- 2) What individual would the CRAFFT tool be more appropriate for?
 - a) A patient who is under the age of 5 years
 - b) A patient between the age of 12-21
 - c) A patient between the age of 21-45
 - d) A patient over 45 years old
- 3) Which tools are used to screen for substance use in children and adolescents?
 - a) GAD-7
 - b) PHQ-9
 - c) Conners CBRS
 - d) CRAFFT
- 4) The acronym CRAFFT means?
 - a) Cocaine, Race, Apple, Fries, Family, Time
 - b) Car, Relay, Alone, Forget, Family, Time
 - c) Car, Relax, Alone, Forget, Friends, Trouble
 - d) Craft, Alone, Alcohol, Friends, Trouble
- 5) During the screening using CRAFFT, how long were patients asked to think about when they last used any substances, e.g., alcohol, vaping devices, marijuana, or illegal drugs?

- a) 1 months
 - b) 6 months
 - c) 9 months
 - d) 12 months
- 6) How often should patients, including adolescents, be screened for substance use?
- a) Every year
 - b) Every six months
 - c) Every visit
 - d) Every three months
- 7) What score of positive items when using the CRAFFT tool indicates the need for further assessment?
- a) Less than one
 - b) Two or more
 - c) Three or more
 - d) More than four

Substance Use Screening Practices.

1. In your practice how often do you screen adolescents for substance use?
 - a) At every visit
 - b) Half the visits
 - c) Less than half
 - d) Never

2. Which screening tools or methods do you use most often for substance use screening?
 - a) Standardized questionnaires (S2BI), CRAFFT, BSTAD)
 - b) Clinical Interview
 - c) Urine Drug testing
 - d) Other (Please specify)

3. On a scale of 1-10, how confident do you feel in your ability to effectively screen adolescents for substance use? (Sliding scale will be used).
 - a. (1) Not confident at all
 - b. (10) Extremely confident

4. What are the primary barriers you face when screening for substance use in adolescents?
(Select all that apply)
 - a) Lack of time.
 - b) Lack of adequate training in available screening methods.
 - c) Parents resistance to discuss substance use.
 - d) Client resistance to discuss substance use.
 - e) Stigma associated with substance use.
 - f) Lack of access to screening tools.

g) Other (Please specify)

Substance Abuse Attitude Survey (SAAS) (Developed by Chappel et al., 1985).

Statements	Strongly Disagree...1	Disagree...2	Neutral..3	Agree...4	Strongly Agree....5
1. Physicians who diagnose alcoholism early improve the chance of treatment success.					
2. Daily use of one marijuana cigarette is not necessarily harmful.					
3. Marijuana use among teenagers can be a healthy experiment.					
4. Daily use of one marijuana cigarette is not necessarily harmful.					
5. Alcoholism is associated with a weak will.					
6. Alcohol and drug abusers should only be treated by specialists in that field.					
7. Smoking leads to marijuana use, which in turn leads to hard drugs.					
8. Drug addiction is a treatable illness					
9. An alcohol or drug dependent person cannot be helped until he/she has hit rock bottom.					
10. An alcohol or drug addicted person who has relapsed several times probably cannot be treated.					