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Evaluation of Bureau Practice for Illegal Drugs Use Among Teens

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This is to certify that the doctoral study by

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2014

Abstract

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MS, Walden University, 2011

BS, Wayne State University, 1984

Submitted in Partial Fulfillment

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Doctor of Nursing Practice

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Abstract

The Bureau of Substance Abuse Treatment Recovery and Prevention, which oversees drug intervention services for Detroit residents, has found the city's illegal drug use among teens to mirror national rates. Illegal drug use is associated with addiction, major health problems, and stigma. Incorporating evidence-based screening during all teen health care visits would decrease missed opportunities to identify at-risk behaviors, the number of teens that do not receive intervention, and the stigma associated with screening. The purpose of this project was to develop evidence-based policy and practice guidelines for teen screening services for illegal drug use. The Plan-Do-Study-Act (PDSA) model was used to guide the project. An interdisciplinary team of direct service and administrative staff selected questions based on 6 key words—car, relax, alone, forget, friends, and trouble (CRAFFT)—to screen teens for illegal drug use. The interdisciplinary team also developed a teen screening policy along with practice guidelines for the screening policy, implementation plan, and project evaluation. A review of the literature provided support for the project methods. Two experts in the field of substance abuse provided content validity for the policy and practice guidelines, and concluded that the CRAFFT screening questions were valid for evidence-based screening for illegal drug use among teens, that the PDSA model was effective to guide the project, and that an interdisciplinary team approach was effective to address the issue. These findings may improve identification of at-risk teens, decrease missed screening opportunities, decrease stigma, and align the Bureau with current trends in substance abuse treatment.

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Dedication

In memory of my mother, Dolores Heard, my greatest cheerleader and supporter.

You were greatly loved, and are greatly missed!

Acknowledgments

I acknowledge God, my family, Pastor Virgil Thomas, Dr. Asabigi, and the City of Detroit's Department of Health and Wellness Promotion/Institute for Population Health for the will, ability, and opportunity to complete the DNP program. Pastor Thomas prayed an anointing for learning upon me. My family supported me through the many hours and occupation with course requirements. Dr. Asabigi consented to serve as my preceptor and demonstrated effective leadership. The City of Detroit granted approval for the practicum experience. The project interdisciplinary team, foundation of the evidence-based improvement project, helped me transform from a novice to an advanced practitioner. This was possible because of each of you. Thank you!

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Section 1: Overview of the Evidence-Based Project

Illegal drug use among teens is a national problem. Illegal drug use affects more than 40 million Americans ages 12 and older (National Center on Illicit Drug Use and Substance Abuse at Columbia University [CASA], 2012). National leaders recognized drug use as a problem for teens and targeted illegal drug use in the Healthy People 2020 objectives. Healthy People 2020 aims for a reduction in the proportion of teens who experience drug exposure on school property. Researchers estimate that most teens who use illegal drugs are not addicted (Davoudi & Rawson, 2010). The purpose of the project was to develop evidence-based policy and practice guidelines from relevant literature and to translate existing evidence into Bureau of Substance Abuse Treatment Recovery and Prevention [Bureau] practice for teens aged 12 years to 17 years, who used illegal drugs.

Screening for illegal drug use provides a mechanism to identify teens at risk and to implement evidence-based interventions to avert short and long-term adverse consequences of illegal drug use (Gans, Falco, Schackman, & Winters, 2010). However, without screening and intervention teens may progress to dependence (Davoudi & Rawson, 2010). The Bureau of Substance Abuse Treatment Recovery and Prevention is the coordinating agency that oversees drug intervention services for Detroit residents who use drugs.

Background

Nationally, drug use, including alcohol, is prevalent across gender, socioeconomic class, race, and age (NIDA, 2010). Teens and persons with mental health issues are at greater risk of adverse effects from illegal drug use (CASA, 2012). The Youth Behavioral

Risk Survey indicated that binge drinking prevalence increased with grade level and is higher among Hispanic (22.4%) and non-Hispanic white (21.7%) teens compared to non-Hispanic black teens (10.3%; Morbidity and Mortality Weekly Report [MMWR], 2013). Binge drinking is an example of nonaddicted drug use. One in five high school girls reported binge drinking (five or more consecutive drinks during the last 30 days) (MMWR, 2013). Binge drinking resulted in approximately 23,000 deaths among females and more than 300,000 years of potential life lost (MMWR, 2013).

The Michigan Adolescent Behavioral Health survey revealed more than 103,000 teens used illegal drugs and 44,000 teens did not receive necessary intervention, mirroring national rates of use (U.S. Department of Health and Human Services [DHHS], 2009b). Rates of use were significantly higher for females excluding marijuana. The National Survey on Drug use and Health (NSDUH) 2003-2006 revealed that less than 40% of Michigan teens perceived smoking marijuana a great risk and less than 75% perceived binge drinking (5 or more drinks, 1-2 times a week) or cigarette smoking (1 or more packs a day) a great risk (DHHS, n.d.a). When teens do not perceive risk, the potential to participate in risky behaviors is increased (Twombly & Holtz, 2008).

Problem Statement

Less than 75% of Michigan teens perceive illegal drug use as a problem (DHHS, 2009b). Incorporating screening for illegal use at all care access points (Vinson, 2013), guided by evidence-based practices, is an appropriate process to determine if additional evaluation and treatment is indicated (DHHS, n.d.a). Advance practice nurses, nurse managers, and direct care nurses direct and provide care in various settings where teens

who use illegal drugs receive services. Incorporating screening for teen illegal drug use in the routine work of nurses expands the potential to identify and address drug use problems (Vinson, 2013). Drug use contributes to more than 70 health conditions including heart disease, cancer, and diabetes (CASA, 2012).

Illegal drug use affects all ages, genders, socioeconomic classes, and ethnic and racial groups. Illegal drug use may lead to addiction and other significant health problems (CASA, 2012). The National Survey on Drug Use and Health (NSDUH) generates state level estimates for 23 substance use disorder measures and mental health problems for people 12 years and older (DHHS, 2008c). The survey classifies a person as dependent on or abusing specific substances based on criteria in the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DHHS, 2008c).

According to CASA (2012), neuroscience, brain imaging, and behavioral research demonstrate drug use is complex, influenced by genetic predisposition, personality, family and friends, and environment. Teens and persons with mental health disorders are at greater risk of adverse effects from illegal drug use (CASA, 2012). The problem that I addressed in the project was the lack of structured evidence-based policy and practice guidelines within the Bureau to inform practice for teens aged 12 years to 17 years, who use illegal drugs.

The Michigan Adolescent Behavioral Health survey provides information on illegal drug use. Rates of use were significantly higher for females excluding marijuana. The report revealed more than 103,000 teens used illegal drugs (DHHS, 2009b). Illegal drug use increased morbidity and mortality. Teens and persons with mental health

disorders are at greater risk than the general population (National Institute of Drug Abuse [NIDA], 2010). The Bureau is the coordinating agency for the Michigan Department of Community Health serving Detroit.

Project Purpose

The purpose of the project was to develop evidence-based policy and practice guidelines from relevant literature to translate existing evidence into Bureau practice for teens aged 12 years to 17 years, who use illegal drugs.

The gap in practice is using non evidence-based practice tools to screen for drug use among teens. Teen illegal drug use often occurs in context of other problems (Lord et al., 2011). The problems that influence teen drug use include psychiatric comorbidity, family problems, stress, delinquency, crime involvement, and peer relationships (Lord et al.2011). Lord et al. (2011) reported study results indicating less than 25% of programs studied met best practice (6% evaluated treatment outcomes and 19% matched assessment outcomes with treatment). Many practices serving teens used adapted standardized structured tools that were labor-intensive, required special training, and were impractical for use with teens across service settings (Lord et al., 2011).

The call center is a department within the Bureau that provides screening and referral for drug services. However, the call center does not have evidence-based policy or practice guidelines to guide services for teens 12 years to 17 years. The call center uses a standardized screen, CareNet, for all screening. Davoudi and Rawson (2010) contend adult tools are not appropriate for teens.

According to Lord et al., (2011) effective teen screening tool should have a comprehensive integrated approach that addresses multiple teen factors. Various teen screening tools are used in practice. However, generalizability of a screening tool selected for use with teens to another environment is dependent on the organizational culture (Bellot, 2011) and social environment (Leslie, 2008). Shields, Campfield, Miller, Howell, Wallace, and Weiss (2008) cautioned tool reliability fluctuates across administration because reliability is a property of scores and not tests.

Project Goal and Objectives

The goal of the project was to develop evidence-based policy and practice guidelines within the Bureau to guide practice for teens, aged 12 years to 17 years, who use illegal drugs. Translating evidence-based practice into services would align services with current trends, increase staff proficiency and autonomy, and decrease missed opportunity for treatment (Substance Abuse and Mental Services Administration [SAMHSA], n.d.c). The objectives of the project were to:

1. Develop evidence-based policy, within the Bureau, to guide practice for teens aged 12 years to 17 years that used illegal drugs.
2. Develop practice guidelines, within the Bureau, to operationalize policy for service to teens aged 12 years to 17 years who used illegal drugs.
3. Develop a project implementation plan.
4. Develop an evaluation of the project..

Project Significance

The significance of the project is establishing benchmarks for cohesive screening through evidence-based policy and practice guidelines within the Bureau. Evidence-based practice is the use of current best evidence to provide patient care to improve outcomes (SAMHSA, n.d.b). Developing evidence-based practice policy to guide services for teens, provides a benchmark for cohesive screening. Translating evidence-based practice to guide practice for teens aged 12 years to 17 years who use illegal drugs will help to ensure appropriate services are administered.

Framework for Project

For this project, I used the plan, do, study, act (PDSA) model. The PDSA cycle consists of four cyclical steps that are systematic and continuous: plan, do, study, and act (see Kelly, 2011). PDSA resulted from a modified Shewhart cycle (Mohen & Norman, n.d.). The PDSA model's structure is simple and represented gathering information, problem identification, decision-making, action, and assessment (Gallon & Bryan, 2007). All levels of staff within the organization may use PDSA to promote critical thinking and problem solving (Kelly, 2011). PDSA related and supported the project because it did not require special funds, front line workers and administrative staff were a part of the team, and it was completed in a short time.

Nature of the Project

Translate evidence into Bureau teen screening. Develop evidence-based policy and practice guidelines for teens 12 years to 17 years that use illegal drugs. The Bureau operates a 24-hour call center that screens potential clients, determines level of need, and

connects them with services. Clinical reasoning is used at the Bureau and varies between providers.

According to Simmons (2010) clinical reasoning is congruent with processing information, integrated multiple levels of thinking, knowledge, and contextual parameters. When the professional uses evidence-based practice with their professional knowledge and experience client outcomes are improved (Steenrod, 2009). Incorporating evidence-based practice into Bureau screening services align with required trends in substance use disorder services.

Definition of Terms

The *Department of Health and Human Services* is the nation's principle agency for the provision and protection of health for the nation. The department has 11 operating divisions and works with local and state governments, as well as, private grantees to provide essential services (DHHS, n.d.b). Substance Abuse and Mental Health Services Administration (SAMHSA) is the division established to reduce the impact of substance use disorder and mental health on society (DHHS, n.d.b).

In this study, the definition of *illegal drugs* that I used was any substance used, including alcohol that violated local, state, or federal use guidelines or laws.

DHHS (n.d.a) defines *screening* as a process of determining if a particular problem existed and if evaluation that is more thorough was indicated. Sometimes *screening* and *assessment* are interchanged. However, DHHS contends, there is a significant difference in meaning and purpose. For the purpose of this project, the DHHS definition is used.

Coordinating Agencies contract substance use disorder prevention and treatment services within a designated area under agreement with Michigan Department of Community Health (MDCH, n.d.). MDCH is the state health department. The Bureau of Substance Abuse and Addiction Services (BSAAS) was a department of MDCH. The BSAAS oversaw prevention and recovery services (MDCH, n.d.).

Dependence is a term introduced by the World Health Organization (WHO) in 1964 to replace commonly used terms addiction and habituation (WHO, n.d.). WHO used dependence to reference drug, chemical, and substance use dependence. SAMHSA used the Diagnostic and Statistical Manual of Mental Disorders IV definition of dependence that requires three of seven criteria be met for substances with withdrawal criterion and three of six criteria without withdrawal criterion (SAMHSA, n.d.b). In this study, I use dependence as introduced by WHO and defined by SAMSHA. In the literature, other terms commonly associated with dependence are: *addiction* (NIDA, 2010), *substance abuse* (Gans et al., 2010), *substance abuse syndrome* (WHO, n.d.), dr*ug use and substance use disorder* (Leslie, 2008), and *illicit drug use* (CASA, 2012).

Assumptions and Limitations

The aim of the project was to develop evidence-based policy and practice guideline to guide practice for teens that used illegal drugs. Assumptions that I made in this project was that translating evidence-based practice into services would align services with current trends, increase staff proficiency and autonomy, and decrease missed opportunity for treatment. In addition, I assumed that the Bureau would implement the policy and guidelines without changing major elements related to resource

restraints. Limitations of the project included lack of control for implementation, changes in state law changing substance use disorder services funding and authority, staff changes, and pending closure of the coordinating agency.

Project Impact on Social Change

Stigma is often associated with drug use and dependence. Screening for illegal drug use may not occur during routine health care visits; however, screening during all health care visits would eliminate missed opportunities to identify at risk behaviors and potentially decrease the number of teens that do not receive intervention (Leslie, 2008; Davoudi & Rawson, 2010; Vinson, 2013). Illegal drug use can result in short term, intermediate, and long term negative consequences, negatively influence quality-adjusted life years, and disability adjusted life years (Friis & Sellers, 2009). Illegal drug use impacts years of potential life lost (YPLL) and disability adjusted life years (DALY) the time a person is disabled to time lost to early death (Friis & Sellers, 2009).

Illegal drug use increases poor school performance, increased school dropout, unintended pregnancy, sexually transmitted diseases, mental disorders, juvenile justice involvement, and interpersonal relationship challenges (NIDA, 2010). The impact of chronic illness, which includes illegal substance use, impacts individuals and society, decreasing productivity and quality of life, and increasing morbidity, mortality, and healthcare costs (Reifsnyder & Yeo, 2011). Evidence-based practice guidelines in practice enhance and inform delivery of treatments and services to assist teens to resolve illegal drug use problems and decrease the adverse influence of illegal drugs on society

(Steenrod, 2009). Thus, the project impact on social change is a potential decreased morbidity, mortality, and lost productivity related to teen illegal drug use.

Summary

Teen illegal drug use effected more than 103,000 Michigan teens, 44,000 did not receive needed treatment (DHHS, 2009b). Missed screening opportunities and inappropriate teen screening tools contributed to the teen illegal drug use problem. Translating evidence-based practice into policy and practice guidelines improve program efficiencies and patient outcomes. The goal of this project was to develop evidence-based practice policy and practice guidelines for teens 12 years to 17 years serviced at the Bureau. Implementation of the evidence-based practice policy and practice guidelines would facilitate staff efficiency, autonomy, and align the Bureau with current health care trends. Review of scholarly evidence was significant to identify and develop evidence-based practices to address health problems. In Section 2, I describe my review of scholarly evidence related to teen illegal drug use and screening.

Section 2: Review of Literature and Conceptual Framework

The Bureau lacked teen specific evidence-based practice policy and practice guidelines to guide practice for teens 12 years to 17 years that used illegal drugs. Developing evidence-based practice for teens through policy and practice guidelines would align Bureau services with trends in substance use disorder services and establish organizational requirements for care. Therefore, I conducted a literature review to identify evidence-based teen screening strategies and PDSA.

Researchers supported the need and use of evidence-based tools for services to teens that used illegal drugs. Several teen specific screening tools exist. However, consideration for organizational culture and leadership were integral to selecting an appropriate tool and process to translate evidence-based practice into service for teens that used illegal drugs (Bellot, 2011). According to Leslie (2008) and Shields et al. (2008) an appropriate screening tool that is reliable, valid, and compatible with the service environment is needed.

Literature Review

For this study, I conducted a simultaneous literature review to identify evidence-based screening for teens that used illegal drugs and to determine if Bureau services for teens were evidence-based. I searched in Academic Search, Cumulative Index to Nursing & Allied Health Literature (CINAHL) Plus Full Text, Cochrane Database of Systemic Reviews, Health and Psychosocial Instruments, and Medline with Full Text. Search criteria were full text, peer reviewed, English, 2008-2013. I used key words and phrases such as: *screening, drug use, and teens*; *drug use, teen, evidence-based practice, and*

PDSA. .The literature is essential to identify current evidence for the topic (Polit & Beck, 2010; Terry, 2012).

I also reviewed the following subject specific websites Substance Abuse and Mental Health Services Administration (SAMHSA), The National Center on Illicit Drug Use and Substance Abuse at Columbia University (CASA), and National Institute of Drug Abuse (NIDA). Abstracts provided me with enough information to identify articles for further consideration for the project. Review of the SAMHSA website provided me with a link to an annotated bibliography of measurement compendia and various screening tools for healthcare settings (SAMHSA, 2012a). I selected the following studies for project consideration from the literature review.

Screening Tools

SAMHSA developed screening, brief intervention, referral and treatment (SBIRT) in response to the Institute of Medicine's (2001) recommendation for screening in community settings for risk behaviors (Davoudi & Rawson, 2010). SBIRT is an intervention model that identifies clients' at risk related to substance use and provides motivational intervention for appropriate next steps. SBIRT aimed to prevent risk behaviors from transitioning to dependence. SBIRT represented a public health approach to influence behavior. SBIRT was compatible for concurrent use with other screening tools. SBIRT initiatives in California identified positive trends, increased screening and prevention through screening in health care settings, increased use of screening tool, and reduced use of drugs by clients. Challenges to the initiative related to leadership, resources, and integration into current protocols.

Gans, Falco, Schackman, and Winters (2010) examined screening and assessment practices at 120 highly regarded substance treatment programs in the nation, less than fifty percent used tools listed in the Substance Use Screening & Assessment Instrument Database. Several programs used ASAM (American Society of Addiction Medicine) guidelines. However, implementation varied across programs (Gans et al., 2010). Researchers have demonstrated a lack of quality through evidence-based practice in adolescent screening and treatment services (Gans et al., 2010). Experts contend tools specific for adolescents were required to effectively screen for teen drug use (Gans et al., 2010).

Knight et al. (2007) conducted a cross-sectional survey of a consecutive sample of 12 to 18 years old patients to measure the prevalence of positive drug use and to estimate prevalence of related substance use problems. The CRAFFT screening test was used. Knight et al. contended screening for substance use should occur at all opportunities and not only traditional accesses. CRAFFT is a mnemonic acronym for the first letter of key words in the six questions (car, relax, alone, forget, family, trouble). Knight, Sherritt, Shrier, Harris, and Chang (2002) conducted a criterion standard validation study comparing the CRAFFT score with screening determined by a substance use-problem scale and a structured psychiatric diagnostic interview. Knight et al. (2002) concluded CRAFFT is a valid adolescent screening tool. The Center for Adolescent Substance Abuse Research (2009) concurs CRAFFT is a valid tool to screen teens.

Lord et al. (2011) conducted a study of teen treatment centers and revealed that six percent evaluated treatment outcomes and only 19% matched assessment outcomes

with treatment. Many standardized teen specific tools were adapted structured tools that were labor-intensive, required special training, and were impractical across service settings (Lord et al., 2011). Teen illegal drug use often occurred in context of other problems (Lord et al., 2011). To be effective the screening tool should have a comprehensive integrated approach that addressed multiple teen factors (Lord et al., 2011).

Shields et al. (2008) conducted a meta-analytic inquiry of adolescent alcohol screening measures to characterize score reliability across studies and explore relationships between sample characteristics and score reliability within each instrument Shields et al. reviewed 12 adolescent screening tools included in the National Institutes for Alcohol Abuse and Alcoholism (NIAAA) guidebook. When tools included a multifactorial construct outside alcohol use, only the unidimensional scale for alcohol was used. The PESQ-PS (Personal Experience Screening Questionnaire-Problem Severity Scale) exceeded 0.90 on weighted and unweighted mean and median score reliability. PESQ-PS was the only tool to exceed 0.90. Shields et al. developed a central repository for providers of reliability information for teen screening tools.

Vinson (2013) contended that screening for illegal drugs began with one question and supported motivational interview as a useful tool. Vinson recommended a single validated question to initiate screening for alcohol and other drugs. Validated short screening tools recommended were AUDIT-C (Alcohol Use Disorder Identification Test) a three question self-administered screen, CAGE (cut down, annoyed, guilty, and eye

opener) a four-question screen, and AUDIT (Alcohol Use Disorders Identification Test) a 10 question screen (Vinson, 2013).

Conceptual Model

Plan, do, study, act (PDSA) model is a quality improvement model (Moen & Norman, n.d.). PDSA minimizes risks, cost, disruption in the practice area, reduces resistance, and learns from what did and did not work (Gallon & Bryan, 2007). PDSA is a straightforward and simple method to answer pertinent questions about expected accomplishments, identify improvements, and what changes result in improvements (Gallon & Bryan, 2007). PDSA, as a model for improvement, successfully guided efforts to solve problems and improve customer services within substance use disorder treatment (see Gallon & Bryan, 2007).

PDSA was applied to a scientific method to implement and test changes in healthcare performance (Speroff, James, Nelson, Headrick, & Brommels, 2004). Hodges and Videto (2011) contend using theories and models to guide organizational and program improvements enable planning beyond an individual and expands the focus of the project to understand behavior and environments. Kettner, Moroney, and Martin (2013) contend designing an efficient strategy to meet organizational needs require deliberate focus, thoughtful study, and analysis. Quality is determined through evaluation of services provided to evaluate the effectiveness, safety, and efficiency of service (Siriwardena, 2009).

PDSA was an effective way to test innovations to solve program problems and improve service (Gallon & Bryan, 2007). It is an improvement model that originated in

industry for quality improvement. PDSA allows for testing of changes in an actual setting (Stiefel, 2011), does not require special funds, front line workers and supervisors can participate on the interdisciplinary team, and it can be completed in a short time. PDSA is one of several continuous quality improvement models. PDSA model has guided health care improvements processes successfully (Gallon & Bryan, 2007; Speroff et al., 2004).

Background and Context

The Bureau is the State of Michigan approved Coordinating Agency for substance use, abuse, and treatment services for Detroit residents. The Bureau is aligned with state requirements related to licensure of medical providers, quality review of programs, client satisfaction surveys, and payment for services. The State's strategic plan for substance use disorder services is transitioning to evidence-based care to align with federal requirements. The Bureau lacks evidence-based practice policy and practice guidelines for teens 12 years to 17 years that use illegal drugs.

The Bureau consists of professional and nonprofessional staff. The lack of evidence-based policy and practice guidelines result in the staff frequently asking the supervisor for assistance to serve clients. The call center provides screening and referral for drug services. However, without evidence-based policy and practice guidelines to services teens 12 years to 17 years the quality of care is diminished. The call center uses a standardized screen, CareNet, for all screening. Adult tools are not appropriate for teens (Davoudi & Rawson, 2010). The Michigan Department of Community Health promotes evidence-based practice approaches in substance treatment services in alignment with national guidelines (MDCH, n.d.).

I served as the project leader and selected the project after observations and review of policies during the practicum experience. I am not an employee of the institution. My ability to serve as the project leader was granted through the Health Officer and Bureau Director's approval of my internship. As the project leader, I convened an interdisciplinary team and facilitated the necessary activities to complete the project. I have not worked with this special population in a treatment or coordinating agency setting previously. However, I have worked with teen programs through the health department and have experienced the negative consequences of missed opportunities to screen and refer for treatment. The project focus was teens 12 years to 17 years in part because of experiences when I worked with the Teen Stop I, II, and Adolescent Sexuality Initiative Program.

Summary

Through the literature search, I identified scholarly evidence that supported the project and improvement model. Screening is an essential first step to identify if a problem exist and requires additional evaluation and services (Vinson, 2013). Screening tools should be validated and reliable for use with the particular population serviced. Using PDSA cycle to guide the project included core activities, sought to understand variations, implement cost-effective strategies, and embed knowledge throughout the organization to change processes and improve outcomes (Speroff et al., 2004). The PDSA model's structure is simple and represents gathering information, problem identification, decision-making, action, and assessment (Gallon & Bryan, 2007). All levels of staff within the organization may use PDSA to promote critical thinking and

problem solving (Kelly, 2011). PDSA related and supported the project because it did not require special funds, front line workers and supervisors were a part of the team, and it can be completed in a short time. In Section 3, I describe the project approach.

Section 3: Approach

The objectives of the project are to develop evidence-based policy and practice guidelines from relevant literature to translate existing evidence into Bureau practice for teens aged 12 years to 17 years, who used illegal drugs. Implementing evidence-based screening for teens is vital to identify at risk teens and appropriate intervention (Vinson, 2013). I serve as the project leader. The approach and rational for the project are described in the following steps:

1. Obtain IRB approval
2. Assemble an interdisciplinary team
3. Conduct a literature review
4. Develop evidence-based policy
5. Develop evidence-based practice guidelines
6. Validate policy and practice guidelines with external scholar practitioners
7. Develop an implementation plan
8. Develop an evaluation plan

Approach and Rationale

PDSA was the model that I selected to guide the project. It was an improvement model used in industry and health care with good results (Gallon & Bryan, 2007; Speroff et al., 2004). Initiation of illegal drug use during teen years increases the potential for serious problems throughout life (i.e. drug addiction, comorbidities, chronic health conditions, and death) (CASA, 2012). Teens and persons with mental health problems were at greater risk. The Bureau is the coordinating agency for Detroit residents and has a

responsibility to provide evidence-based, quality care to teens that use illegal drugs 12 years to 17 years. Implementing evidence-based practice policy and practice guidelines within the Bureau align services with current trends, increase staff proficiency and autonomy, and decreases missed opportunity for treatment.

The Network for the Improvement of Addiction Treatment (NIATx) used the PDSA model to implement change (Gallon & Bryan, 2007). PDSA was used to test innovative ideas to problem solve and improve customer satisfaction. Gallon and Bryan (2007) contended that testing changes guided by PDSA minimized risk and expenditures, decreased disruptions to clients and staff, used pilots which helped decrease resistance, and provided information on what worked and what did not work.

The India health care system used PDSA as a quality improvement initiative to address supply and demand issues (Kollengode, 2011). Kollengode contended seven key steps were required for successful quality improvement strategies. PDSA was one strategy selected to guide improvement processes. PDSA methodology was useful and powerful. Three key questions were based on PDSA, what is the aim? What will be measured to know the aim was met? What changes are needed?

Lehman, Simpson, Knight, and Flynn (2011) contended evidence-based practices in substance use treatment faced clinical and contextual challenges. Texas Christian University (TCU) used a two-phased approach to integrate treatment innovation planning. The TCU model and variations of PDSA were the guiding modules. According to Lehman et al., PDSA is intuitively embedded in most organizational and clinical

improvement models. PDSA guided strategies to identify conceptual stages and core components of the implementation (Lehman et al., 2011).

Speroff et al. (2004) contended four core questions were useful to determine the value of quality improvements: Is the study relevant? Are the results valid? Are the findings based on appropriate criteria? Will the study promote organizational practice? PDSA quality improvement model guided researchers and reviewers to appraise quality improvements and protocols (Speroff et al., 2004). Speroff et al. contended clear parallels existed between PDSA quality improvements and traditional research methodology "In quality improvement, the scientific method is embedded in sequential applications of cycles of learning described as the PDSA cycles" (Speroff et al., 2004, p. 4).

Varkey et al. (2009) conducted a pilot study to demonstrate how quality improvement tools can be used to create and initiate system improvements to enhance patient education and counseling. Varkey et al. aimed to enhance patient understanding of their diagnosis, management and follow-up care by the visit completion. PDSA was used as the improvement model. Tools developed were iterations of written materials given to patients after their medical visit. Varkey et al. concluded PDSA was useful to create and initiate system improvements to enhance patient education and counseling.

IRB Approval

Walden University provided IRB approval. The Department of Health and Wellness Promotion (DHWP) did not require IRB approval. IRB functions to prevent in humane treatment of human subjects. The federal government's attempt to streamline processes and protect human subjects (Enfield & Truwit, 2008). IRB review process is

critical to regulatory compliance and ethical conduct (Byerly, 2009). Project implementation began immediately after IRB approval.

Assemble an Interdisciplinary Team

I designed the project to address the lack of evidence-based practice for teens through an interdisciplinary team. Therefore, I extended invitations to various Bureau managers and direct staff via email, interoffice communication, and fact-to-face to join the interdisciplinary team. I informed potential interdisciplinary team members I was working to complete my doctor of nursing practice degree and the approved project was designed to translate evidence-based practice into Bureau services for teens through an interdisciplinary team approach. The Bureau director served as my preceptor and supported the project. The interdisciplinary team objectives were to develop evidence-based practice and policy guidelines to screen teens for illegal drug use, an implementation plan, and project evaluation.

I had access to staff and their contact information because the project site was also my practicum site. The invitation included date, time, and location, a broad overview of the project, and a RSVP date. After the RSVP date, I reviewed responses to assess stakeholder representation. The goal was eight to 10 team members. Small teams are most effective. According to Manion (2005) more than 12 team members was associated with more logistical problems. Roussel and Swansburg (2009) contend effective teams use resources and time well, make appropriate decisions, have enhanced problem solving, and implement decisions supported by the interdisciplinary team.

I convened the initial meeting November 24, 2013, provided agenda, sign-in sheet, and recorded meeting minutes for each meeting. The interdisciplinary team reviewed minutes at the next meeting. I provided an overview of the project and highlighted the project objectives (develop policy and practice guideline to screen teens for illegal drug use and develop an implementation and evaluation). Attendees provided introductions that included interest in the project and potential contributions to the team. The team decided the meeting schedule, roles and responsibilities, and target dates based on the progress made. Each of the interdisciplinary team members had screening experience and were knowledgeable of the organizational culture and barriers which expedited selecting screening questions. As well as, determining the PDSA questions what are we trying to accomplish? How will we know a change is an improvement? What changes can we test that will result in improvement? (Gallon & Bryan, 2007) as the project evaluation.

Literature Review

I led the interdisciplinary team in discussing findings from the literature review conducted for the proposal. The literature is essential to identifying current evidence for the topic (Polit & Beck, 2010; Terry, 2012). I encouraged interdisciplinary team members to contribute additional resources for the project; however, the team did not recommend additional literature or reports. The team discussed articles and reports that met search criteria according to the project plan. Search sites included topic specific sites and sites within the Walden library.

Develop Evidence-based Policy and Practice Guidelines

The interdisciplinary team selected the CRAFFT screen questions (see Appendix A), developed a CRAFFT screening policy (see Appendix B), and developed practice guidelines to operationalize policy for teens based on evidence-based practice identified through the literature review, (see Appendix C). According to Kettner (2013), goals and program design should align with the mission of the organization. The mission statement reflects the organizational culture toward the target population and other stakeholders (Hodges & Videto, 2011). Organizational culture directly affected the success of implementing evidence-based practice and quality improvements within an organization (Bellot, 2011; Davoudi & Rawson, 2010).

Validate Policy and Practice Guidelines

The project design included validation of the policy and practice guidelines developed by the interdisciplinary team. Validation of findings means similar results were obtained under modified conditions and has greater generalizability (Igl, Konig, & Ziegler, 2009; Knight et al., 2002; Leslie, 2008; Shields et al., 2008). I informed the interdisciplinary team that validation by scholar professionals would occur, and their recommendations shared with the interdisciplinary team for consideration.

I asked the interdisciplinary team members and Bureau managers for scholar reviewer recommendations for the developed policy and practice guidelines developed by the interdisciplinary team. Neither the interdisciplinary team nor Bureau managers made recommendations for scholar reviewers. Therefore, an email was sent to eight members of the National Association for Alcoholism Drug Abuse Counselors (NAADAC)

speakers bureau that listed adolescents/ teens and screening as specialties. Four NAADAC members responded. One of the four was not available, but provided a list serve email address to access scholar professionals. Unfortunately, I did not have permission to access the site. One reviewer was cost prohibited. Two responders provided reviews.

Reviewer 1 had a Master of Science degree and served in the field for 39 years. As well as, served on the NAADAC Adolescent Specialty Committee, developed and implemented a substance use disorder treatment program for incarcerated Native American youth, and published regarding assessment and treatment planning. Reviewer 2 was a licensed practical nurse, alcohol and drug counselor, certified addiction counselor, criminal justice specialist, acupuncture detoxification specialist, and alcohol and drug abuse board qualified supervisor. Reviewer 2 also worked in substance use disorder services in various capacities for 32 years.

Reviewer 1 cautioned the way a question is asked influences the response and recommended an assumptive form of question (i.e. “how many times…” and cautioned interrater reliability affected screening results). Therefore, training and asking questions the same should render similar results. The reviewer also acknowledged CRAFFT as a high face validity tool. Reviewer 2 confirmed PDSA as an effective method to implement and evaluate the project and supported the interdisciplinary team approach. In addition, Reviewer 2 provided recommendations for frequency of analysis, updates, team meetings, task assignments, and responsibilities for implementation of the developed evidence-based policy and practice guidelines.

Develop Implementation Plan

The interdisciplinary team developed an implementation plan to translate evidence-based practice into Bureau policy and practice guidelines for teens aged 12 years to 17 years, (see Appendix D). PDSA model guided the implementation plan. The PDSA cycle consisted of four cyclical steps that are systematic and continuous: plan, do, check or study, and act (Kelly, 2011). The PDSA steps began with identifying an opportunity and planning for change. Implementing change in a pilot- small scale, analyzing the data from change and any affect, and implementing change on a broader scale if change is successful are included in the model (Kelly, 2011). Reynolds and Sutherland (2013) contended that implementation was inextricably linked to monitoring and evaluation.

Develop Evaluation Plan

PDSA guided the evaluation of the policy and practice guidelines developed to guide Bureau practice for teens aged 12 years to 17 years that use illegal drugs (see Appendix E*)*. Using PDSA minimized risks, cost (see Appendix F*)*, disruption in the practice area, reduced resistance, and learned from what did and did not work (Gallon & Bryan, 2007). It was a straightforward and simple method. It was a mechanism to answer pertinent questions about what accomplishments were expected, how improvement would be identified, and what changes would result in an improvement (Gallon & Bryan, 2007). Effective evaluation must define the problem addressed and include how the intervention influences the health system (Reynolds & Sutherland, 2013).

Summary

The lack of evidence-based policy and practice guidelines created the potential for missed opportunity to provide quality services to teens 12 years to 17 years that received services at the Bureau. Screening is the initial effort to identify if a problem exist and leads to evaluation and referral if indicated (Leslie, 2008; Vinson, 2013). Evidence-based practice provided choices demonstrated to improve patient outcomes (SAMHSA, n.d.c) and organizational performance. It is imperative to include end users and other stakeholders in program changes and design. Organizational culture directly affected the success of implementing evidence-based practice and quality improvements within the organization (Bellot, 2011; Davoudi & Rawson, 2010). Evidence-based practice does not replace the knowledge and expertise of the professional (SAMHSA, n.d.b) rather it enhances.

As the coordinating agency for Detroit residents with substance use, abuse, and addiction the Bureau must ensure quality service. Quality is determined through evaluation of services provided to evaluate the effectiveness, safety, and efficiency of service (Siriwardena, 2009). The Bureau lacked evidence-based practice policy to guide services to teens that used illegal drugs.

The interdisciplinary team developed evidence-based policy and practice guidelines from relevant literature to translate existing evidence into Bureau practice for teens 12 years to 17 years that used illegal drugs. Implementing evidence-based practice guided by PDSA align Bureau practice with current health care trends and funding requirements. Evidence-based practice incorporates patient centered care, practitioner

expertise, and recent practice guidelines developed through study. In Section 4, I describe the interdisciplinary team activities and project implications.

Section 4: Discussion and Implications

The project design was to align Bureau services with current care trends in substance use disorder services. Project objectives were develop evidence-based policy to guide practice for teens who use illegal drugs, practice guidelines within the Bureau to operationalize policy, project implementation plan and evaluation. Translating evidence-based practices into screening practices for teens 12 years to 17 years that used illegal drugs would align Bureau services with current substance use disorder care trends, enhance and inform delivery of services, and assist to resolve teen illegal drug issues (Steenrod, 2009).

The interdisciplinary team identified the CRAFFT questions to screen teens 12 years to 17 years for illegal drug use at the Bureau (see Appendix A), developed a teen specific screening policy (see Appendix B), practice guideline (see Appendix C), implementation plan verified by subject matter experts (see Appendix D), and an evaluation (see Appendix E). PDSA model guided the project. The PDSA questions were the bases for the project evaluation

1. What are we trying to accomplish?
2. How will we know a change is an improvement?
3. What changes can we test that will result in an improvement?

Discussion

I served as project leader of the interdisciplinary team of seven after receiving IRB approval. The interdisciplinary team consisted of one access management system team leader and one referral agent, from the call center. Administrative staff also

participated, two treatment review specialist, each worked in the call center previously; one automation support specialist; one quality/standards team leader, previously assigned to call center; and myself MSN, RN.

The initial meeting began with an overview of the project and the importance of providing evidence-based services to teens that use illegal drugs. I shared results of the literature review and requested additional resources from team members. The interdisciplinary team members did not provide additional resources for consideration. Particular points that required reinforcement were teens require teen specific services (Gans et al., 2010; Leslie, 2008; Lord et al., 2011; Shields et al., 2008; Steenrod, 2009) and the definition of screening for the project (DHHS, n.d.a).

I informed the interdisciplinary team scholar practitioners would review and validate the policy and practice guidelines developed. The team did not have recommendations for scholar reviewers. Therefore, I sent invitations to the National Association for Alcoholism and Drug Abuse Counselors (NAADAC) speakers' bureau to identify scholar reviewers. Criteria for invitations were teen/adolescent services and screening expertise. Eight practitioners met criteria and received a request to review the policy and practice guidelines.

Four potential reviewers responded, one was supportive but unable to add to his current workload, one reviewer was willing but cost prohibited, two reviewers were available and able to meet project timelines and budget restraints. I shared reviewer responses with the team. The reviewers validated the policy and practice guidelines

developed by the team. Reviewer 2 also made recommendation to the implementation plan.

PDSA quality improvement model guided team activities. It was an improvement model used in health care with good results (Gallon & Bryan, 2007; Speroff et al., 2004). Lehman et al. (2011) contended evidence-based practices in substance use treatment faced clinical and contextual challenges. Texas Christian University (TCU) used a two-phased approach to integrate treatment innovation planning; PDSA was one of the models used (Lehman et al., 2011). The India health care system used PDSA as a quality improvement initiative to address supply and demand issues (Kollengode, 2011).

The SAMHSA website provided a link for screening tools (SAMHSA, 2012a). The interdisciplinary team identified criteria to select a screening tool. Criteria were ability to screen for drugs and alcohol, ease of administration and scoring, number of questions, and cost. The CRAFFT screening questions met all criteria. CRAFFT is a mnemonic acronym of first letters of key words in the six screening questions designed to screen simultaneously for high-risk alcohol and other drug use disorders, (see Appendix A).

CRAFFT requires less than one minute to administer, two or more yes responses indicate additional assessment, and the tester scores the screen (CeASAR, 2009). The American Academy of Pediatrics' Committee on Substance Abuse recommended CRAFFT as a validated screen for teens less than 21 years of age (CeASAR, 2009). In addition, three of the six questions relate to the Diagnostic and Statistical Manual- IV (DSM) diagnostic criteria for substance use disorders (CeASAR, 2009). The CRAFFT

screens for lifetime use and is available without cost (Center for Addiction and Mental Health [CAMH], 2009).

A CRAFFT screening tool copyrighted by the Center for Adolescent Substance Research (CEASAR) is available with permission without cost. The interdisciplinary team developed policy to establish the CRAFFT questions as the mechanism to screen teens, (see Appendix B). The interdisciplinary team also developed practice guidelines; (see Appendix C) to operationalize the policy. Developing a policy for screening teens using the CRAFFT questions identified the CRAFFT questions as the organizations preferred method of action (Kerfoot & Chaffee, 2007).

PDSA guided the project to evaluate and develop policy and practice guidelines. PDSA as a model for improvement successfully guided efforts to solve problems and improve customer services within substance treatment services (Gallon & Bryan, 2007; Speroff et al., 2004). PDSA was cost effective, straightforward, and a simple method (Gallon & Bryan, 2007). It was a mechanism to answer pertinent questions about expected accomplishments, identified improvement, and what changes would result in improvements (Gallon & Bryan, 2007).

Incorporating screening for teen illegal drug use in routine health care services expands the potential to identify and address teen drug use issues (Vinson, 2013). The gap in practice is lack of screening and using non evidence-based practice tools to screen for drug use among teens. Many standardized teen specific tools were adapted structured tools that are labor-intensive, require special training, and are impractical for use with teens across service settings (Lord et al., 2011). Gans et al. (2010) conducted a study that

demonstrated a lack of quality through evidence-based practice in adolescent screening and treatment services. Experts contended tools specific for adolescents were required to effectively screen for teen drug use.

Implications

Stigma is associated with illegal drug use. Screening for illegal drug use may not occur during routine health care visits. However, incorporating evidence-based screening during all health care visits would eliminate missed opportunities to identify at risk behaviors, potentially decrease the number of teens that do not receive intervention (Leslie, 2008; Davoudi & Rawson, 2010; Vinson, 2013), and decrease the stigma associated with screening. Illegal drug use can result in short term, intermediate, and long term negative consequences, negatively influence quality-adjusted life years (a cost analysis of a person's health) (Stiefel, 2011), and disability adjusted life years. Illegal drug use impacts years of potential life lost and disability adjusted life years (DALY) the time a person is disabled to time lost to early death (Friis & Sellers, 2009).

The Michigan Behavioral Youth Survey revealed more than 103,000 teen used illegal drugs and estimated 44,000 did not receive indicated treatment (DHHS, 2009b). The National Institute of Drug Abuse (2010) contended illegal drug use negatively affected school performance, increased school dropout, and contributed to unwanted pregnancy and sexually transmitted infections. The literature supported screening for teen drug use using appropriate teen specific tools (Gans et al., 2010; Lord et al., 2011).

Evidence-based practices screening provided cohesive screening and improved client outcomes (SAMHSA, n.d.c). Illegal drug use was associated with poor health and

chronic diseases that link to increased health care cost, and increased morbidity and mortality (Reifsnyder & Yeo, 2011). Translating evidence-based practices into teen screening ensured appropriate screening and referral, and decreased missed screening opportunities (Leslie, 2008; Davoudi & Rawson, 2010; Vinson, 2013). As well as, aligns Bureau services for teens with national trends in substance use disorder services (SAMHSA, n.d.c). Establishing evidence-based policy and practice guidelines to screen teens for illegal drug use created a mechanism for accountability, established benchmarks, improved outcomes, and increased staff proficiency and autonomy (Siriwardena, 2009; Steenrod, 2009). Developing organizational policy for evidence-based practices screening for teens 12 years to 17 years that use illegal drugs establishes a mechanism of accountability and practice guidelines operationalize the evidence-based practice.

Illegal drug use and associated consequences carry social stigma. Consequences of illegal drug use negatively affect the teen and society (Reifsnyder & Yeo, 2011). Evidence-based practice screenings for teen illegal drug use decrease missed opportunities and improve potential for appropriate identification of risk and intervention. Identification of teens with substantial illegal drug use issues and appropriate intervention decrease negative societal impact (Friis & Sellers, 2009; Leslie, 2008; Davoudi & Rawson, 2010; Vinson, 2013). The project impact on social change is decreased morbidity, mortality, and lost productivity influenced by teen illegal drug use.

Project Strengths and Limitations

I served as project leader. I planned to convene a small interdisciplinary team of eight to 10 members. The interdisciplinary team would assume ownership of the project, make recommendations and provide additional reports or literature for project consideration, and have time to participate without restriction. Project strengths and limitations were as follows.

Strengths of the project were attainment of project objectives. The disciplinary team selected the CRAFFT screening question (see Appendix A), developed evidence based policy for CRAFFT questions (see Appendix B), practice guidelines to operationalize screen policy (see Appendix C), implementation plan (see Appendix D), and developed a project evaluation based on PDSA questions (see Appendix E). Subject experts provided feedback and validated developed policy and practice guidelines. The interdisciplinary team unanimously decided to incorporate reviewer recommendations into the policy, practice guidelines, and implementation plan. The interdisciplinary team verbalized appreciation for the opportunity to participate in designing a teen specific process. Staff cost for the project were minimal (see Appendix F).

Limitations were that the team consisted of seven interdisciplinary members. The project plan target was eight to 10 team members, three from the call center. The call center supervisor assigned two members and restricted participation to two. In addition, the call center supervisor limited staff time away from the call center. Staff assignment by supervisor increased the potential for staff resistance and excluded less experienced staff. Newer staff may have contributed a unique impression to the project. One reviewer

was a subject expert with 32 years of experience in various substance use disorder capacities with multiple certifications, but lacked a graduate degree. The project plan included review from three scholar professionals. One scholar review was obtained.

Self Analysis

I have grown throughout the DNP practicum experience. I began the practicum as a novice in substance use disorder services. Throughout the practicum experience, several organizational, local, state, and federal issues challenged project completion. I introduced a team approach to decision making in a traditional setting that functioned from a top down decision-making approach. The ability of an interdisciplinary team approach to successfully develop policy and practice guidelines to align the Bureau with care trends in substance use disorder was significant. The ability to present significant issues through various strategies to stakeholders demonstrated effective leadership. Strategies to overcome barriers included effective communication, conflict resolution, including stakeholders, reiterating project goals and objectives, coaching, and listening to member concerns (Laureate Education Inc., 2011).

I learned to extend request for scholar reviewers more broadly to attract and obtain commitment for validation and to determine potential scholar reviewers' specific educational background before accepting responses for scholar reviewers. As well as, to investigate cost for consultants for inclusion in project budgeting. I have served in a management role for more than 20 years working with teams and within organizations not aligned with current health care trends. In public health, working with public funds

limit spending on innovations. However, learning about the plan, do, study, act model provided a cost effective strategy to facilitate change.

Summary

Evidence-base practices screening provide cohesive screening and improves client outcomes (SAMHSA, n.d.b). Illegal drug use is associated with poor health and chronic diseases, increase health care cost, and increased morbidity and mortality (Reifsnyder & Yeo, 2011). Translating evidence-based practices into teen screening through the PDSA model ensure appropriate screening and referral, and decrease missed screening opportunities (Gallon & Bryan, 2007; Leslie, 2008; Davoudi & Rawson, 2010; Vinson, 2013). Translating evidence-based practices into Bureau screening services through policy and practice guidelines for teens 12 years to 17 years aligns with current trends in substance use disorder services (SAMHSA, n.d.c). In Section 5, I present a manuscript for publication.

Section 5: Manuscript for Publication

Abstract

The Bureau of Substance Abuse Treatment Recovery and Prevention, which oversees drug intervention services for Detroit residents, has found the city's illegal drug use among teens to mirror national rates. Illegal drug use is associated with addiction, major health problems, and stigma. Incorporating evidence-based screening during all teen health care visits would decrease missed opportunities to identify at risk behaviors, number of teens that do not receive intervention, and stigma associated with screening. The purpose of this project was to develop evidence-based policy and practice guidelines for teen screening services for illegal drug use. The Plan-Do-Study-Act (PDSA) model was used to guide project. An interdisciplinary team of direct service and administrative staff selected questions based on 6 key words—car, relax, alone, forget, friends, and trouble (CRAFFT)—to screen teens for illegal drug use. The interdisciplinary team also developed a teen screening policy and practice guidelines for the screening policy, implementation plan, and project evaluation. A review of the literature and two subject experts provided content validity for the policy and practice guidelines, CRAFFT screening questions for illegal drug use among teens, PDSA model to guide project, and an interdisciplinary team approach to address the issue. These findings may improve identification of at-risk teens, decrease missed screening opportunities, decrease stigma, and align the Bureau with current trends in substance abuse treatment.

Key words and phrases screening, drug use, teens; drug use, teen; evidence-based practice; and PDSA

Evaluation of Bureau Practice for Illegal Drug Use Among Teens

Illegal drug use is a national problem (NIDA, 2010). In particular, teens are at increased risk of adverse effects from illegal drugs (CASA, 2012). The rate of illegal drug use in Michigan mirrors national rates (U.S. Department of Health and Human Services [DHHS], 2008c). The Bureau of Substance Abuse Treatment Recovery and Prevention (Bureau) is the coordinating agency for substance use disorder services for Detroit residents through contract with the state health department. Evidence-based screening for illegal drug use provides a mechanism to identify teens at risk and to mitigate adverse consequences of illegal drug use (Gans, Falco, Schackman, & Winters, 2010).The Bureau lacked evidence-based screening practices for teens 12 years to 17 years. Translating evidence-based practice into services will align Bureau services with current trends, increase staff proficiency and autonomy, and decreased missed opportunity for intervention (MDCH, n.d.; Vinson, 2013). Project objectives were develop evidence-based screening and practice guidelines for teens 12 years to 17 years that use illegal drugs, implementation plan, and project evaluation.

Discussion

The goal of the project was to align Bureau services with current care trends in substance use disorder services. Stigma is associated with illegal drug use. Screening for illegal drug use may not occur during routine health care visits. The Michigan Adolescent Behavioral Health survey revealed more than 103,000 teens used illegal drugs and 44,000 teens did not receive necessary treatment (DHHS, 2009b). Incorporating screening for

teen illegal drug use in routine health care services expands the potential to identify and address teen drug use issues (Vinson, 2013).

Screening is an essential first step to identify if a drug problem exist and requires intervention (Vinson, 2013). Screening tools should be validated and reliable for use with teens (Gans et al., 2010). The gap in practice is using non evidence-based practice tools to screen for drug use among teens. Many standardized teen specific tools were adapted structured tools that are labor-intensive, require special training, and are impractical for use with teens across service settings (Lord et al., 2011). Translating evidence-based practices into screening practices for teens align Bureau services with current substance use disorder care trends, enhance and inform delivery of services, and assist to resolve teen illegal drug issues (MDCH, n.d.; Steenrod, 2009).

Implications

Translating evidence-based practice policy and practice guidelines in Bureau services for teens 12 years to 17 years align services with current care trends (SAMHSA, n.d.c). The National Institute of Drug Abuse (2010) reported illegal drug use negatively affected school performance, increased school dropout, and contributed to unwanted pregnancy and sexually transmitted infections. According to Reifsnyder and Yeo (2011) illegal drug use was associated with poor health and chronic diseases that link to increased health care cost, and increased morbidity and mortality. Researchers supported screening for teen drug use using appropriate teen specific tools at all care access points (Gans et al., 2010; Lord et al., 2011). Evidence-based practices screening provided cohesive screening and improved client outcomes (SAMHSA, n.d.c). Establishing

evidence-based policy and practice guidelines to screen teens for illegal drug use created a mechanism for accountability, established benchmarks, improved outcomes, and increased staff proficiency and autonomy (Leslie, 2008; SAMHSA, n.d.c; Siriwardena, 2009; Steenrod, 2009).

Definition of Terms

The *Department of Health and Human Services* (DHHS) is the nation's principle agency for the provision and protection of health for the nation. The department has 11 operating divisions and works with local and state governments, as well as, private grantees to provide essential services (DHHS, n.d.b). Substance Abuse and Mental Health Services Administration (SAMHSA) is the division established to reduce the impact of substance use disorder and mental health on society (DHHS, n.d.b).

In this study, the definition of *illegal drugs* that I used was any substance used, including alcohol that violated local, state, or federal use guidelines or laws.

DHHS (n.d.a) defines *screening* as a process of determining if a particular problem existed and if evaluation that is more thorough was indicated. Sometimes *screening* and *assessment* are interchanged. However, DHHS contends, there is a significant difference in meaning and purpose. For the purpose of this project, the DHHS definition is used.

Coordinating Agencies contract substance use disorder prevention and treatment services within a designated area under agreement with Michigan Department of Community Health (MDCH, n.d.). MDCH is the state health department. The Bureau of

Substance Abuse and Addiction Services (BSAAS) was a department of MDCH. The BSAAS oversaw prevention and recovery services (MDCH, n.d.).

Dependence is a term introduced by the World Health Organization (WHO) in 1964 to replace commonly used terms addiction and habituation (WHO, n.d.). WHO used dependence to reference drug, chemical, and substance use dependence. SAMHSA used the Diagnostic and Statistical Manual of Mental Disorders IV definition of dependence that requires three of seven criteria be met for substances with withdrawal criterion and three of six criteria without withdrawal criterion (SAMHSA, n.d.b). In this study, I used dependence as introduced by WHO and defined by SAMSHA. In the literature, other terms commonly associated with dependence are: *addiction* (NIDA, 2010), *substance abuse* (Gans et al., 2010), *substance abuse syndrome* (WHO, n.d.), dr*ug use and substance use disorder* (Leslie, 2008), and *illicit drug use* (CASA, 2012).

Approach and Rationale

The purpose of the project was to develop evidence-based policy and practice guidelines from relevant literature to translate existing evidence into Bureau practice for teens aged 12 years to 17 years, who used illegal drugs. I served as the project leader, selected PDSA for the project model, and convened an interdisciplinary team to develop the policy and practice guidelines, implementation plan, and project evaluation. I describe the project approach and rational below.

IRB Approval

Walden University provided IRB approval. The Department of Health and Wellness Promotion (DHWP) did not require IRB approval. IRB functions to prevent in

humane treatment of human subjects. The federal government's attempt to streamline processes and protect human subjects (Enfield & Truwit, 2008). IRB review process is critical to regulatory compliance and ethical conduct (Byerly, 2009). Project implementation began immediately after IRB approval.

Assemble an Interdisciplinary Team

I extended invitations to stakeholders (staff throughout Bureau departments) via email, interoffice communication, and fact-to-face to join the project interdisciplinary team. The invitation included date, time, and location, a broad overview of the project, and a RSVP date. After the RSVP date, I reviewed responses to assess stakeholder representation. The goal was eight to 10 interdisciplinary team members. Small teams are most effective (Manion, 2005). Roussel and Swansburg (2009) contend effective teams are proficient and have enhanced problem solving; and implement decisions supported by the team.

I convened the initial meeting November 24, 2013, provided agenda and sign-in sheets, recorded minutes, and provided minutes to interdisciplinary team members. I provided an overview of the project. Interdisciplinary team members provided introductions that included interest in the project and potential contributions to the interdisciplinary team. The interdisciplinary team established the meeting schedule, roles and responsibilities, target dates, and developed evidence-based policy, practice guidelines, implementation, and project evaluation.

Literature Review

I led the interdisciplinary team in discussing search criteria and findings from the literature review conducted for the proposal. I conducted a simultaneous literature review to identify evidence-based screening for teens that used illegal drugs, to determine if Bureau services for teens were evidence-based, and the appropriateness of using PDSA to guide the project. I searched in Academic Search, Cumulative Index to Nursing & Allied Health Literature (CINAHL) Plus Full Text, Cochrane Database of Systemic Reviews, Health and Psychosocial Instruments, and Medline with Full Text. Search criteria were full text, peer reviewed, English, 2008-2013. I used key words and phrases such as: *screening, drug use and teens*; *drug use, teen, evidence-based practice, and PDSA.* .The literature search is essential to identify current evidence for the topic (Polit & Beck, 2010; Terry, 2012).

I also reviewed subject specific websites Substance Abuse and Mental Health Services Administration (SAMHSA), The National Center on Illicit Drug Use and Substance Abuse at Columbia University (CASA), and National Institute of Drug Abuse (NIDA). Abstracts provided me with enough information to identify articles for further consideration for the project. Review of the SAMHSA website provided me with a link to an annotated bibliography of measurement compendia and various screening tools for healthcare settings (SAMHSA, 2012a). I selected the following studies for project consideration from the literature review.

Screening Tools

SAMHSA developed screening, brief intervention, referral and treatment (SBIRT) in response to the Institute of Medicine's (2001) recommendation for screening in community settings for risk behaviors (Davoudi & Rawson, 2010). SBIRT is an intervention model that identifies clients' at risk related to substance use and provides motivational intervention for appropriate next steps. SBIRT aimed to prevent risk behaviors from transitioning to dependence. SBIRT represented a public health approach to influence behavior. SBIRT was compatible for concurrent use with other screening tools. SBIRT initiatives in California identified positive trends, increased screening and prevention through screening in health care settings, increased use of screening tool, and reduced use of drugs by clients. Challenges to the initiative related to leadership, resources, and integration into current protocols.

Gans, Falco, Schackman, and Winters (2010) examined screening and assessment practices at 120 highly regarded substance treatment programs in the nation, less than fifty percent used tools listed in the Substance Use Screening & Assessment Instrument Database. Several programs used ASAM (American Society of Addiction Medicine) guidelines. However, implementation varied across programs (Gans et al., 2010). Researchers have demonstrated a lack of quality through evidence-based practice in adolescent screening and treatment services (Gans et al., 2010). Experts contend tools specific for adolescents were required to effectively screen for teen drug use (Gans et al., 2010).

Knight et al. (2007) conducted a cross-sectional survey of a consecutive sample of 12 to 18 years old patients to measure the prevalence of positive drug use and to estimate prevalence of related substance use problems. The CRAFFT screening test was used. Knight et al. contended screening for substance use should occur at all opportunities and not only traditional accesses. CRAFFT is a mnemonic acronym for the first letter of key words in the six questions (see Appendix A). Knight, Sherritt, Shrier, Harris, and Chang (2002) conducted a criterion standard validation study comparing the CRAFFT score with screening determined by a substance use-problem scale and a structured psychiatric diagnostic interview. Knight et al. and Knight et al. concluded CRAFFT is a valid adolescent screening tool. The Center for Adolescent Substance Abuse Research (2009) concurs CRAFFT is a valid tool to screen teens.

Lord et al. (2011) conducted a study of teen treatment centers and revealed that six percent evaluated treatment outcomes and only 19% matched assessment outcomes with treatment. Many standardized teen specific tools were adapted structured tools that were labor-intensive, required special training, and were impractical across service settings (Lord et al., 2011). Teen illegal drug use often occurred in context of other problems (Lord et al., 2011). To be effective the screening tool should have a comprehensive integrated approach that addressed multiple teen factors (Lord et al., 2011).

Shields et al. (2008) conducted a meta-analytic inquiry of adolescent alcohol screening measures to characterize score reliability across studies and explore relationships between sample characteristics and score reliability within each instrument.

Shields et al. reviewed 12 adolescent screening tools included in the National Institutes for Alcohol Abuse and Alcoholism (NIAAA) guidebook. When tools included a multifactorial construct outside alcohol use, only the unidimensional scale for alcohol was used. The PESQ-PS (Personal Experience Screening Questionnaire-Problem Severity Scale) exceeded 0.90 on weighted and unweighted mean and median score reliability. PESQ-PS was the only tool to exceed 0.90. Shields et al. developed a central repository for providers of reliability information for teen screening tools.

Vinson (2013) contended that screening for illegal drugs began with one question and supported motivational interview as a useful tool. Vinson recommended a single validated question to initiate screening for alcohol and other drugs. Validated short screening tools recommended were AUDIT-C (Alcohol Use Disorder Identification Test) a three question self-administered screen, CAGE (cut down, annoyed, guilty, and eye opener) a four-question screen, and AUDIT (Alcohol Use Disorders Identification Test) a 10 question screen (Vinson, 2013).

Conceptual Model

Plan, do, study, act (PDSA) model is a quality improvement model (Moen & Norman, n.d.). PDSA minimizes risks, cost, disruption in the practice area, reduces resistance, and learns from what did and did not work (Gallon & Bryan, 2007). PDSA is a straightforward and simple method to answer pertinent questions about expected accomplishments, identify improvements, and what changes result in improvements (Gallon & Bryan, 2007). PDSA, as a model for improvement, successfully guided efforts

to solve problems and improve customer services within substance use disorder treatment (see Gallon & Bryan, 2007).

PDSA was applied to a scientific method to implement and test changes in healthcare performance (Speroff, James, Nelson, Headrick, & Brommels, 2004). Hodges and Videto (2011) contend using theories and models to guide organizational and program improvements enable planning beyond an individual and expands the focus of the project to understand behavior and environments. Kettner, Moroney, and Martin (2013) contend designing an efficient strategy to meet organizational needs require deliberate focus, thoughtful study, and analysis. PDSA is one of several continuous quality improvement models. PDSA model has guided health care improvements processes successfully (Gallon & Bryan, 2007; Speroff et al., 2004).

Develop Evidence-based Policy and Practice Guidelines

The interdisciplinary team selected the CRAFFT screen questions (see Appendix A), developed a CRAFFT screening policy (see Appendix B), and developed practice guidelines to operationalize policy for teens based on evidence-based practice identified through the literature review, (see Appendix C). The organizations mission statement establishes broad parameters for goals and program design, target population, and vision for achievement (Kettner, 2013). The mission statement reflects organizational culture toward the target population and other stakeholders (Hodges & Videto, 2011). Organizational culture directly affected the success of implementing evidence-based practice and quality improvements within an organization (Bellot, 2011; Davoudi & Rawson, 2010).

Validate Policy and Practice Guidelines

The project design included validation of the policy and practice guidelines developed by the interdisciplinary team. Validation of findings means similar results were obtained under modified conditions and has greater generalizability (Igl, Konig, & Ziegler, 2009; Knight et al., 2002; Leslie, 2008; Shields et al., 2008). I informed the interdisciplinary team that validation by scholar professionals would occur, and their recommendations shared with the interdisciplinary team for consideration.

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criminal justice specialist, acupuncture detoxification specialist, and alcohol and drug abuse board qualified supervisor. As well as, had worked in substance use disorder services in various capacities for 32 years.

Reviewer 1 cautioned the way a question is asked influences the response and recommended an assumptive form of question (i.e. “how many times…” and cautioned interrater reliability affected screening results). Therefore, training and asking questions exactly the same should render similar results. Reviewer 1 also acknowledged CRAFFT as a high face validity tool. Reviewer 2 confirmed PDSA as an effective method to implement and evaluate the project and supported the interdisciplinary team approach. In addition, Reviewer 2 provided recommendations for frequency of analysis, updates, team meetings, task assignments, and responsibilities for implementation of the developed evidence-based policy and practice guidelines.

Develop Implementation Plan

The interdisciplinary team developed an implementation plan to translate evidence-based practice into Bureau policy and practice guidelines for teens aged 12 years to 17 years, (see Appendix D). PDSA model guided the implementation plan. The PDSA cycle consisted of four cyclical steps that are systematic and continuous: plan, do, study, and act (Kelly, 2011). All levels of staff within the organization may use PDSA to promote critical thinking and problem solving (Kelly, 2011). The PDSA steps began with identifying an opportunity and planning for change. Implementing change in a pilot-small scale, analyzing the data from change and any affect, and implementing change on a broader scale if change is successful are included in the model (Kelly, 2011).

Implementation requires a direct link to monitoring and evaluation (Reynolds & Sutherland, 2013).

Develop Evaluation Plan

The interdisciplinary team used PDSA to guide the evaluation of the policy and practice guidelines developed to guide Bureau practice for teens aged 12 years to 17 years that use illegal drugs. Using PDSA minimized risks, cost (see Appendix F), disruption in the practice area, reduced resistance, and learned from what did and did not work (Gallon & Bryan, 2007). It was a straightforward and simple method. It was a mechanism to answer pertinent questions about what accomplishments were expected, how improvement would be identified, and what changes would result in an improvement (Gallon & Bryan, 2007).

Project Strengths and Limitations

As the project leader, I planned to convene a small interdisciplinary team of eight to 10 members. The interdisciplinary team would assume ownership of the project, make recommendations and provide additional reports or literature for project consideration. Limitations were decreased access to staff after relocation to different locations, two staff were assigned by the call center supervisor and may have resulted in participation by assignment and not interest. It also, resulted in exclusion of less experienced staff that may have provided a unique impression and contribution to the project. One reviewer lacked a degree. Therefore, only one scholar review was received.

Strengths of the project were attainment of project objectives to identify an evidence-based screen (see Appendix A), developed evidence based policy (see

Appendix B), practice guidelines (see Appendix C), an implementation plan (see Appendix D), and a project evaluation (see Appendix E). I shared reviewer feedback with the interdisciplinary team. The interdisciplinary team unanimously decided to incorporate recommendations into the policy, practice guidelines, and implementation plan.

Summary

Evidence-base practices screening provide cohesive screening and improved client outcomes (SAMHSA, n.d.b). Illegal drug use is associated with poor health and chronic diseases, increase health care cost, and increased morbidity and mortality (Reifsnyder & Yeo, 2011). Translating evidence-based practices into teen screening ensure appropriate screening and referral, and decrease missed screening opportunities (Davoudi & Rawson, 2010; Leslie, 2008; Vinson, 2013). Translating evidence-based practices into Bureau screening services through policy and practice guidelines for teens 12 years to 17 years aligns with current trends in substance use disorder services (SAMHSA, n.d.c). Stigma is associated with illegal drug use. Screening for illegal drug use may not occur during routine health care visits. However, incorporating evidence-based screening during all health care visits would eliminate missed opportunities to identify at risk behaviors, potentially decrease the number of teens that do not receive intervention (Davoudi & Rawson, 2010; Leslie, 2008; Vinson, 2013), and decrease the stigma associated with screening.

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Appendix A: CRAFFT Screening Questions

C - Have you ever ridden in a CAR driven by someone (including yourself) who was "high" or had been using alcohol or drugs?

R - Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in?

A - Do you ever use alcohol/drugs while you are by yourself, ALONE?

F - Do you ever FORGET things you did while using alcohol or drugs?

F - Do your family or FRIENDS ever tell you that you should cut down on your drinking or drug use?

T - Have you gotten into TROUBLE while you were using alcohol or drugs? (CeASAR, 2009).

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Appendix B: CRAFFT Teen Screening Policy

Policy**:**

CRAFFT screening questions are used to screen teens 12 years to 17 years for illegal drug and alcohol use. A screening score of two or more is referred for assessment.

Appendix C: Practice Guidelines

Procedure:

1. Referral agent and assigned staff provide confidential screening for teen illegal drug and alcohol use.
2. Referral agent and assigned staff ask CRAFFT screening questions as written and in sequential order.
3. Referral agent and assigned staff provide onsite screening for teen illegal drug and alcohol use Monday – Friday, 8:00 AM – 5:00 PM.
4. Referral agent and assigned staff provide screening via telephone 24 hours via designated telephone number, 1-800-467-2452.
5. Referral agent and assigned staff refer teens with a score equal to or greater than two for assessment.

Appendix D: Implementation Plan

The plan, do, study, act (PDSA) quality improvement module guided the implementation plan. The Bureau Director will:

1. Demonstrate commitment to change and provide necessary resources.
2. Identify change leader.
3. Support sustainability efforts.
4. Require updates, attend some change team meetings, provide feedback, and acknowledge team efforts.

The call center supervisor will serve as the change team leader and:

1. Convene a core implementation team including referral agents, IT staff, quality improvement staff, adopters, and contributors as identified by the team.
2. Monitor team responsibilities and activities to determine project proceeds as designed.
3. Facilitate staff in service and training for:
    a. CRAFFT policy,
    b. CRAFFT practice guidelines,
    c. CRAFFT module within CareNet,
    d. Customer services,
4. Provide feedback and updates to program director as decided by director,
5. Facilitate access to policy and practice guidelines within the call center.
6. Give copy of policy and practice guidelines to call center staff.
7. Ensure annual policy review and update with quality coordinator.

8. Identify IT coordinator to lead technology requirements and report to team leader regarding:
    a. Integration of required changes within CareNet to support CRAFFT module,
    b. CRAFFT module development and activation,
    c. Creation and activation of email field in CareNet to support Survey Monkey client satisfaction survey.
    d. Development and implementation of online client satisfaction survey through Survey Monkey,
    e. Receipt and analysis of baseline and post implementation survey data and data reporting,
    f. Technological requirements, barriers, and challenges.

Change team will:

1. Determine implementation performance objectives and timelines,
2. Determine team members roles and responsibilities,
3. Review data, determine significance, and provide feedback for additional data needs and next steps if indicated,
4. Identify barriers to process,
5. Continue PDSA to address deficiencies and make improvements.

Appendix E: Project Evaluation

Evaluation of the project was contingent upon affirmative responses to the PDSA questions as decided by the interdisciplinary team (Gallon & Bryan, 2007):

Q: What are we trying to accomplish?

A: Translate evidence into practice for teens 12 years to 17 years that use illegal drugs through developing evidence-based practice screening and practice guidelines.

- Met. Developed policy and practice guidelines for CRAFFT screening tool validated through scholar review.

Q: How will we know that a change is an improvement?

A: Alignment with literature review recommendations and implementation of the evidence-based practice policy and practice guidelines without changing major elements related to resource restraints:

- Bureau will have teen specific policy,
- Bureau will be in alignment with Substance Abuse and Mental Health Services evidence-based care guidelines.

Q: What changes can we test that will result in an improvement?

A: Post CRAFFT implementation:

- Percentage of teens screened with CRAFFT tool compared to number of teens screened during 90 day period,
- Comparison of client satisfaction responses 90 days baseline (pre implementation) with 90 days post implementation.

- Quarterly monitoring of teen screening with CRAFFT, 100% compliance by end of second quarter post implementation.

Appendix F: Estimated Interdisciplinary Team Budget

Title	Hourly Salary	Project Hours	Total before Fringe	Fringe Rate	Fringe $	Total Personnel
Project Leader	45.00	6	270.00	33%	89.10	359.10
A.M. Team Leader	26.00	6	156.00	33%	51.48	207.48
Referral Agent	19.00	6	114.00	33%	37.62	151.62
Treatment Review Specialist- 2	40.00	6	240.00	33%	79.20	319.20
Automation Support Specialist	30.00	6	180.00	33%	59.40	239.40
Quality Team Leader	26.00	6	156.00	33%	51.48	207.48
Expert Reviewers- 2	0	0	150.00	0	0	150.00
Total	186.00		1266.00		368.28	1634.28

Curriculum Vitae

Sharon D. Heard

Professional Summary

Twenty-two years in public health, 17 years supervision/management. Skilled in policy and program development, managing grant funded projects and required reporting, team building, effective communication, problem solving, staff training, program evaluation, quality assurance, accreditation, and HIPAA. Completed required public health emergency preparedness trainings.

Experience

Detroit Department of Health 2/2012 to 2/2014
Intern

- Quality improvement Bureau of Substance Abuse Prevention, Treatment, and Recovery, developed evidence-based practices policy and practice guidelines for teens 12 years to 17 years that use illegal drugs.

Detroit Department of Health	**10/1989 to 9/2012**
Supervising Public Health Nurse	2/2012 to 9/2012
Health Center Administrator:	10/2002 to 2/2012
Primary Care and Family Planning Quality Assurance	7/2010 to 2/2012
Childhood Lead Poisoning Prevention and Control Program Administrator	3/2006 to 7/2010
Administrator of Building 6 Community Nursing Services	12/2002 to 7/2006
Supervising Public Health Nurse	10/1995 to 12/2002
Senior Public Health Nurse	10/1991 to 10/1995
Public Health Nurse	10/1989 to 10/1991

Education

2014	DNP	Walden University, College of Nursing, Baltimore, MD
2011	MSN	Walden University, College of Nursing, Baltimore, MD
1984	BSN	Wayne State University, College of Nursing, Detroit, MI

DNP Project

Evaluation of Bureau Practice for Illegal Drug Use Among Teens

Licensure

Registered Nurse – State of Michigan

References

Available upon request