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# Improving Integrated Care for Medically Underserved Patients at a Texas FQHC using SBIRT and PHQ-9

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## ABSTRACT

Integrated Care, under provisions of the Affordable Care Act (ACA), aimed to reduce fragmented care for Medically Underserved Populations (MUPs) who depend on community-based centers for their health care needs. Well-defined by the World Health Organization, social determinants of health such as low socioeconomic status, low educational attainment and housing instability often contribute to health disparities, making it difficult for MUPs to achieve optimal health outcomes. The purpose of this study was to gather preliminary data indicating the need to integrate a social work program at a Texas Federally Qualified Health Center using the Screening, Brief Intervention and Referral to Treatment Model and the PHQ-9 Depression Scale.

Using a study sample of ( $n=100$ ), the findings suggest, MUPs benefit from co-located care. Aggregated scores from the AUDIT report past or current drinking patterns (60%), and scores from the PHQ-9 indicate mild to severe depressive symptoms (56%). Of the 56% who reported having depressive symptoms, 33% went untreated during their first office visit accentuating the need to have treatment modalities focused on co-occurring diagnoses.

Imperative to the field of social work is the adage, “meeting the client where there’re at.” Medical social workers may need to assess a patient’s level of understanding of symptoms, concurrent diagnoses and treatment options to increase commitment to retention care, compliancy and recovery. Implications for social work practice, as well as, future research are also discussed.

Improving Integrated Care for Medically Underserved Patients at a Texas FQHC using  
SBIRT and PHQ-9

A Thesis

Presented to

The Faculty of the Graduate School

Abilene Christian University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science in Social Work

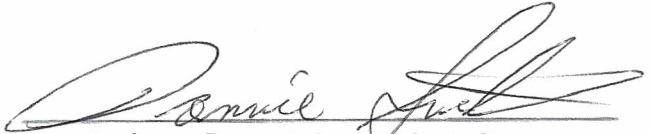
By

Irene Fuentes

May 2018

This thesis, directed and approved by the candidate's committee, has been accepted by the Graduate Council of Abilene Christian University in partial fulfillment of the requirements for the degree

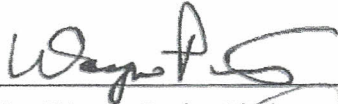
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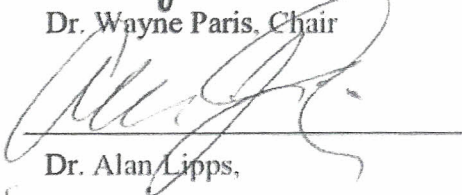
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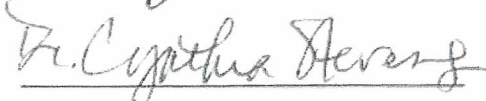
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To my family and children for their unconditional support and encouragement to pursue my love for higher education. I especially want to dedicate this thesis to all my beautiful girls who dream of greater things. The road to success is long and hard, but eventually, you get there.

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## CHAPTER I

### INTRODUCTION

Major provisions of the 2010 presidential signing of the Patient Protection and Affordable Care Act (ACA) included overhauling health care for millions of Americans by providing affordable and accessible health care coverage (Albright et al., 2011; The Affordable Care Act: A Brief Summary, 2011). Another significant provision of ACA aimed to reduce fragmented care through the authorization of an integrated health care system (Del Boca, McRee, Vendetti & Damon, 2017; Tai, Wu & Clark, 2012). While landmark provisions under ACA have significantly improved access to health care for millions, gaps in the delivery of an integrated health care system remain (Kaiser Family Foundation, 2014; Substance Abuse and Mental Health Services Administration, 2014).

Equally important is the growing concern for Medically Underserved Populations (MUPs) who benefit from integrated health care, yet lack access to concurrent health care services in the same location despite reform efforts (Tai, Wu & Clark, 2012). MUPs are more likely to have low socioeconomic status, low educational attainment, housing instability and are likely to benefit from co-located services due to barriers in transportation. Collectively identified as the social determinants of health, these barriers substantially proliferate health disparities and contribute to challenges not felt by the general population (World Health Organization, 2017). The Center for Disease Control and Prevention identified the five top contributors to health outcomes, i.e., genetic

disposition, economic status, human behavior, sociological context, ecological context and adequate medical care among the list of competing needs (2017). A synthesis of the literature by Wyatt, Laderman, Botwinick, Mate, & Whittington (2016) found that 10% of all preventable deaths were related to inadequate health care, 40% were due to human behavior, and another 15% were a direct result of the social determinants of health.

As research continues to develop in the field of medical social work, social workers interested in integrated health care will need to take a preemptive role in addressing the challenges to integrated care and the interrelationship between the social determinants of health and human behavior to holistically care for their patients. Understanding the complexity of integrated care, social determinants, and human behavior may lead to the successful integration of effective interventions in this area. As such, social workers entering the health care field as members of an interprofessional team will need to gain familiarity with such terms as the social determinants of health, health disparities, human behavior and interventions that seemingly work to integrate care.

### **Statement of the Problem**

Community-based health care centers such as Federally Qualified Health Centers (FQHCs) have the burden of responsibility to coordinate care for persons with concurrent health needs under ACA's initiative to integrate co-occurring disease management programs. With the number of persons qualifying for health care coverage increasing, this may increase the burden faced by FQHCs to serve patients holistically. MUPs are often uninsured or qualify for Medicaid health care coverage and often have concurrent diagnoses such as chronic diabetes, hypertension, and cardiovascular disease exacerbated

by substance use, a mental health disorder, or both. A report by the Agency for Healthcare Research and Quality (AHRQ) concluded that the likelihood of MUPs experiencing health disparities, poorer clinical outcomes, higher incidence of morbidity and mortality rates, and higher costs associated with their care is unavoidable under the current health care system (National Healthcare Quality and Disparities Report, 2014). Furthermore, failure to integrate sustainable, cost-efficient interventions for patients contingent on FQHCs may significantly contribute to existing barriers not only felt by MUPs but by FQHCs who struggle to comply with increasing federal regulations. Thus, integrative systems of care targeting MUPs are necessary to meet their current needs.

Recognizing the importance of integrated care in a primary care setting informs the literature; however, barriers to full integration remain. A potential solution to integrative care is the integration of a social work program using interventions that could work to expand health care parity for MUPs.

### **Significance of Study**

Although the premise of this paper lies in the preliminary analysis of integrating health care, this study emphasizes the need to integrate interventions such as the Screening, Brief Intervention and Referral to Treatment (SBIRT) Model (Appendix B) and the use of a Patient Health Questionnaire Depression Scale (PHQ-9; Appendix C). A plethora of evidence indicating the effectiveness of implementing SBIRT in primary care exists (Dwinnells, 2015; Powers, James, Benningfield, Margaret & Clinton, 2016; Saitz, 2007; Substance Abuse and Mental Health Services Administration, 2014; U.S. Department of Health and Human Services, 2016). Another handful of studies frame the effectiveness of using a PHQ-9 screening tool to assess for depression (Randall, Voth,

Burnett, Bazhenova & Bardwell, 2013; Umegaki & Todo, 2017). However, there is limited evidence on common barriers to full implementation of a social work integrated program at a Texas FQHC using SBIRT and the PHQ-9. In fact, studies grounded in integrated care attributing its efficacy to the field of social work are necessary to evaluate its effectiveness. Preliminary feedback regarding the integration of a social work program in primary care may provide insight into the increasing need for social workers in integrated health care as well as distinguish the profession's leadership role in accomplishing the goals of ACA successfully. Benchmark efforts established through this study may garnish a greater appreciation for the role of social work in primary care.

## CHAPTER II

### CONCEPTUAL FRAMEWORK

Improving health care outcomes for MUPs involves realigning the current health care system. However, improving the current system may become burdensome if the right implementation processes are not in place to make the necessary changes. Changing how the current system provides health care include strategies outlining the improvement and identifying the changes needed. How will community-based providers know a change is an improvement without the proper guidance to begin the change process. This paper emphasizes the need to use conceptual frameworks to guide the implementation process and the use of quality improvement measures that lead to improved health.

Green (2014) purports the conceptual framework, gives the research direction and serves as a roadmap to guide the researcher in developing the research question, literature review and the overall infrastructure of the study. Similarly, Ivey (2015) contextualized the definition of a conceptual framework to mean the association of “interrelated ideas or concepts” (p. 1). The notion of association in the context of research gave root to the use of conceptual frameworks to derive processes in finding the inter-directional relationship between variables (Ivey, 2015). Along the continuum of ideas and concepts is the notion of applying the conceptual framework to the findings (Ivey, 2015). Conceptual frameworks either validate conclusions or serve to generate new concepts and inferences regarding previous literature (Ivey, 2015). While some researchers use epistemological

underpinnings to guide their studies, others use conceptual frameworks to generate findings (Green, 2014).

### **Continuous Quality Improvement (CQI)**

Continuous Quality Improvement (CQI) is a conceptual framework used to implement “change process strategies” over time (National Center on Addiction and Substance Abuse at Columbia University, 2012, p. 28). In primary care, these change processes notably lead to “better patient outcomes” (Kader, Eckert & Toth, 2015, para. 1). Better patient outcomes or improved health status occurs when the patient receives curative treatment to gain improved health. Improved health requires testing of changes to produce results that are validating and centric to the patient’s needs. The implementation of SBIRT to improve patient outcomes requires change process strategies to “build a sustainable program” (National Center on Addiction and Substance Abuse at Columbia University, 2012, p. 28). The literature points to the effectiveness of SBIRT; however, it is necessary to note the implementation of SBIRT is burdensome and may render the intervention ineffective if failure to implement as intended (National Center on Addiction and Substance Abuse at Columbia University, 2012). One of the reasons effective interventions fail to produce expected outcomes may have to do more with the implementation process rather than the methodology or the intervention itself (Del Boca, McRee, Vendetti & Damon, 2017).

CQI is a continuous, iterative process with incremental stages of development; CQI can be better used to integrate the concepts of SBIRT into a demanding workflow through high-quality improvement standards (National Center on Addiction and Substance Abuse at Columbia University, 2012). Health care settings who choose to



integrate innovative programs into existing workflows may do so to improve care for their patients (National Center on Addiction and Substance Abuse at Columbia University, 2012). FQHCs looking to integrate care may choose to implement CQI to improve their screening and intervention processes for substance use and mental health symptoms.

Several leading CQI strategies exist to improve patient care: The Model for Improvement, Lean, and Six Sigma this study recommends implementing The Model for Improvement to guide service delivery and change processes to assist in integrating care into an existing health care program.

### **Model for Improvement**

A widely employed model for integrating change is the Model for Improvement designed by Associates in Process Improvement (Institute for Healthcare Improvement, 2017). Using a collaborative team approach, the Model for Improvement shows a consensus of the changes needed to improve patient care. Four of the six featured processes of the Model for Improvement include: developing the aim statement, and quality measures, identifying what changes need to occur and testing the changes (Institute for Healthcare Improvement, 2017). The aim statement consists of a timeframe; a description of the population served, and the quality measures previously developed (Institute for Healthcare Improvement, 2017). Testing the changes occurs using a small scale, i.e., small sample, within a short time frame (Institute for Healthcare Improvement, 2017). After completing steps one through four, change implementation and incorporating the changes on a broader scale occurs (Institute for Healthcare Improvement, 2017).

### **Plan, Do, Study, Act Cycle**

The Plan, Do, Study, Act Cycle (PDSA) (Appendix D), is used to test changes in small increments until the change becomes an improvement (Institute for Healthcare Improvement, 2017). The PDSA cycle is often used with the Model for Improvement in health care to test changes over time (Kader, Eckert & Toth, 2015). The PDSA cycle combines concepts of change and improvement in small incremental steps through a series of continuous processes until the proposed change becomes an improvement (Plan-Do-Study-Act (PDSA) Directions and Examples, 2015). The first step of the PDSA cycle include developing a plan to test the changes needed to create an improved health care outcome (Plan-Do-Study-Act (PDSA) Directions and Examples, 2015). Conducting a change test, studying the results, and adopting or adapting the change taking place are the last three steps in the PDSA cycle (Plan-Do-Study-Act (PDSA) Directions and Examples, 2015). This researcher recommends the Model for Improvement and the PDSA cycle as a guide for health care professionals interested in integrated care and for those involved in developing a standardized protocol for screening patients.

## CHAPTER III

### REVIEW OF THE LITERATURE

A review of the literature indicated the effectiveness of using Evidence-Based (EBP) interventions in primary care; however, studies of the role of social work in integrated health care are limited, underlining the importance of research in this area. Additionally, after reviewing the current literature, further research is needed to fully understand the processes to implementation of an integrated care program at a Federally Qualified Health Center (FQHC). Evidence on the effectiveness of SBIRT and PHQ-9 can be seen in the literature; however, data evaluating the implementation of both is scarce. Further outlined in the literature review is an overview of the population served, the role of FQHCs and social work in primary care, the prevalence of substance use, mental health disorders, and the economic burden associated with substance use.

#### **Integrating Behavioral Health Care**

A community-based integrated behavioral health care system could potentially reduce the cost of care, as well as, increase service utilization for MUPs with complex health needs. In practice, collaborative integration of health care professionals (i.e., nursing, pharmacy, social work, medicine) in primary care with a concerted effort to coordinate care modalities may reduce how health disparities impact overall health (American Hospital Association, 2011). Establishing a social work trajectory in an integrated health care modality may significantly improve service delivery for MUPs

who rely on community-based health care. More so, the seamless integration of a behavioral health care component in primary care is central to the mission of the ACA. Patients with behavioral needs are more likely to also have a physical illness (Kaiser Family Foundation, 2014; Nardone, Snyder & Paradise, 2014); however, treatment modalities for concurring diagnoses are often fragmented, uncoordinated, and costly (Kaiser Family Foundation, 2014; Nardone, Snyder & Paradise, 2014).

### **Medically Underserved Populations**

FQHCs have an unprecedented burden of responsibility to serve MUPs regardless of their ability to pay (Shin, Sharac, Barber, Rosenbaum & Paradise, 2015). MUPs who fall below 138% of the Federal Poverty Level (FPL) live in underrepresented communities and often have co-occurring chronic conditions (Shin et al., 2015). Additionally, of the 85 million visits to a community-based center, nearly 71% of the patients served fell below the 100% FPL (Shin et al., 2015). According to the United States FPL for 2015, 100% below the FPL equals \$11,770 annually for one person and less than \$20,100 per year for a household of three (Shin et al., 2015). Of the approximately 22 million adults treated at a community-based health care center including FQHCs, 60% were female, most were from a diverse background, and nearly 62% fell between the ages of 18 and 65 (Shin et al., 2015). Also, of those seen at a community-based center, 42% had Medicaid health care coverage (Shin et al., 2015). Patients falling below 100% of the FPL had higher incidents of health disparities, poor chronic disease management and reduced interventive or preventative care (2014 National Healthcare Quality and Disparities Report).

Under provisions of ACA, states are mandated to expand Medicaid coverage to qualifying persons who fall 138% below the FPL (Redhead, Chaikind, Fernandez & Staman, 2012). With nearly 4.1 million Texans now relying on Medicaid health care coverage, ACA continues to make significant efforts to expand Medicaid health care coverage to millions more (Texas Statewide Behavioral Health Strategic Plan 2017-2021, 2016). While Medicaid recipients represent most of patients served at an FQHC, they also accounted for nearly one-quarter of the emergency department (ED) visits in 2014 (National Center for Health Statistics, 2016). Adults falling below 100% of the FPL also accounted for 30% of first-time visits to an ED, followed by Medicaid and uninsured visits at 23% and 15%, respectively (National Center for Health Statistics, 2016). Medicaid recipients are two times more likely to have a mental health disorder compared to non-Medicaid beneficiaries (Kaiser Family Foundation, 2014). Approximately 50% of Medicaid recipients with a disability also had a mental health disorder (Kaiser Family Foundation, 2014). Since the introduction of ACA in 2010, Medicaid has become a major funding source, paying one-fourth of all behavioral health visits in the U.S. (Kaiser Family Foundation, 2014).

### **Federally Qualified Health Centers**

Federally Qualified Health Centers (FQHCs) will undoubtedly play an integral role as demand for integrated health care increases under ACA (Abuse, S. Mental Health Services Administration, 2011). Federally funded under the Health Center Consolidation Act of the Public Health Service Act, FQHCs are mandated to provide services in lower socioeconomic communities (Abuse, S. Mental Health Services Administration, 2011). To comply with new health care guidelines, full-service FQHCs offer support in case

management, psychosocial, dental and behavioral health to meet the ongoing demands to serve MUPs holistically (Abuse, S. Mental Health Services Administration, 2011). In 2013, of the 85 million visits to an FQHC, nearly 6.7 million were behavioral health visits (Shin et al., 2015). With the expansion of Medicaid increasing the number of previously uninsured Americans, this increases the number of visits to a community-based health care center (Kaiser Family Foundation, 2014; Redhead et al., 2012). Subsequently, because of ACA, the number of uninsured adults age 18 years of age and older declined by nearly 30% in Medicaid-funded states between 2013 and 2014, with a gradual decline to less than 13% in 2015 (National Center for Health Statistics, 2016). Approximately 40% of the patients seen at an FQHC in 2013 had Medicaid health care coverage making this the largest payer source for FQHCs (Shin et al., 2015).

Undoubtedly, FQHCs will need to realign service utilization to meet the ongoing demands for integrated health care. With the goal to expand health care underway, this translates to improved health care services for MUPs at risk for health disparities (Rosenbaum, Shin, Jones & Tolbert, 2010). Demand for primary care providers, as well as the need for integrated health care delivery systems in the same location, are likely to increase due to this expansion. To adjust for this increase, community-based centers such as FQHCs will need to improve their service provider availability; thus, implementing a social work integrated behavioral health component in primary care may garnish support for MUPs who struggle to receive both in the same location.

### **Co-Occurring Conditions**

Co-occurring conditions include elements of both physical and behavioral health disorders (Substance Abuse and Mental Health Services Administration, 2014; U.S.

Department of Health and Human Services, 2016). Prevalence of co-occurring conditions affects the already burdened health care system significantly (National Center for Health Statistics, 2016). With co-occurring conditions becoming increasingly common, patients with a chronic disease complicated by a behavioral disorder are more likely to die prematurely (The Texas Health Status, 2014). The onset of co-occurring conditions often occurs with six in ten adults who have a substance use disorder also having a mental health disorder (National Institute on Drug Abuse, 2012). Concurrently treating patients with co-occurring conditions through an integrative approach may be the best practice modality (National Institute on Drug Abuse, 2012). The Texas Health Status (2014) reported a behavior disorder complicated at least five of the six debilitating chronic diseases in 2012. Thus, an integrated health care system is critical for patients who may otherwise go without adequate dyadic treatment.

With the rising cost of health care consuming current political rhetoric, coordinated care of concurring diagnoses calls for a comprehensive patient-centered approach to health care delivery (Nardone, Snyder & Paradise, 2014). Patient-centered care ensures patients receive ongoing treatment for their co-occurring diagnoses (Nardone, Snyder & Paradise, 2014). Due to the complexity of co-occurring conditions, early screening, assessment, and interventions are necessary to reduce exacerbation of behavioral health issues in primary care. The use of integrative models to lessen the onset of early behavioral risk and early identification of mental health symptoms has shown to improve health care outcomes. Use of an illicit drug and or alcohol often worsens complex diseases such as heart, liver, and mental health disorders (The Texas Health Status, 2014).

## **Prevalence of Substance Use**

Recently the U.S. Surgeon General reported on the burden of alcohol, drugs, and health accentuating the need to expand interventions and treatment options for substance use (U.S. Department of Health and Human Services, 2016). Substance, according to the report, is a psychoactive compound aggregated into three distinct classifications: alcohol, illicit drugs and non-prescription drugs (Powers et al., 2016; Substance Abuse and Mental Health Services Administration, 2014; U.S. Department of Health and Human Services, 2016). Substance use deviates a person's functional ability: psychologically and physiologically (U.S. Department of Health and Human Services, 2016). Further reported by the Surgeon General is a comprehensive list of frequently used substances; however, this paper reports on alcohol consumption exclusively (U.S. Department of Health and Human Services, 2016).

### **Alcohol Consumption**

Alcohol consumption evolves in stages: alcohol use, alcohol misuse, and alcohol dependency. If left untreated, prolonged alcohol use can lead to dependence (U.S. Department of Health and Human Services, 2016). A standard drink equals 12 ounces of beer, 5 ounces of wine or a 1.5-ounce shot (McKnight-Eily et al., 2014; U.S. Department of Health and Human Services, 2016). The recommended daily allowance for men is five or fewer drinks and four or less for women (Hingson, Heeren, Edwards & Saitz, 2012; Substance Abuse and Mental Health Services Administration, 2013; U.S. Department of Health and Human Services, 2016). Of the estimated 175 million persons over the age of 12 who reported drinking alcohol in 2016, 66 million reported binge drinking or excessive drinking in the prior month (U.S. Department of Health and Human Services,



2016). Binge drinking occurs when consumption exceeds the standard allowance within two hours (Hingson et al., 2012; Substance Abuse and Mental Health Services Administration, 2013; U.S. Department of Health and Human Services, 2016). Nearly 40 million adults reported having a binge episode at least three times monthly (McKnight-Eily et al., 2014). One in ten deaths were a result of alcohol misuse, ranking third in preventable deaths with nearly 72,000 deaths occurring each year in the United States (Hingson et al., 2012). Binge drinking accounted for more than half of the alcohol-related deaths (Hingson et al., 2012). Alcohol dependency has severe implications not only on the burden of disease and the burden of cost, but contributes significantly to the mortality rate making it a national crisis (U.S. Department of Health and Human Services, 2016). Vivek H. Murthy, U.S. Surgeon General, in his national public address on addiction noted the prevalence of substance use as a national crisis:

I recognized through my own experience in patient care: that substance use disorders represent one of the most pressing public health crises of our time.

Whether it is the rapid rise of prescription opioid addiction or the longstanding challenge of alcohol dependence, substance misuse, and substance use disorders can—and do—prevent people from living healthy and productive lives. (U.S.

Department of Health and Human Services, 2016, pp. V)

### **Economic Burden**

Substance use, which includes alcohol use, has become a national public health crisis costing the United States over \$600 billion annually; in Texas, it remains problematic reaching \$40 billion in 2013 (National Institute on Drug Abuse, 2012; The Texas Health Status, 2014). Roughly 1.6 million adults living in Texas have a substance

use disorder (SUD) with only six percent accessing needed treatment (Texas Statewide Behavioral Health Strategic Plan 2017-2021, 2016). Early screening for alcohol use among those ten and older could increase awareness of the need for early screening using cost-effective interventions to identify the early warning signs leading to addiction. Despite gaps in treatment options, drug treatment has shown to reduce the cost associated with loss of productivity, lowered crime rates and fewer drug-related injuries (National Institute on Drug Abuse, 2012). The cost related to substance use treatment methods such as methadone maintenance for heroin addiction cost on average \$4,800 annually for one person compared to the \$24,500 for incarceration (National Institute on Drug Abuse, 2012). The use of preventative care modalities such as the SBIRT model has shown to reduce the cost associated with alcohol consumption by nearly \$43,500 for every 10,000 spent on preventative care (Substance Abuse and Mental Health Services Administration, 2013). Patients screening positive for alcohol use, when provided with brief intervention, had fewer Emergency Department (ED) visits and fewer inpatient hospitalizations (Substance Abuse and Mental Health Services Administration, 2013). To reduce the rate of substance use in compliance with the 2008 parity laws and provisions detailed in the ACA, funding at the local, state and federal level now covers behavioral health treatment (McKnight-Eily et al., 2014; National Institute on Drug Abuse, 2012; U.S. Department of Health and Human Services, 2016).

### **Screening for Alcohol Use**

Screening and brief intervention have shown to reduce the amount of alcohol consumed. However, the likelihood of having patient-provider discussions about unsafe drinking habits was less than 16% of the U.S. population, less than 18% of current

drinkers and 25% of those who drank more than the recommended drinking allowance (McKnight-Eily et al., 2014). Men were more likely to discuss their drinking habits during a routine medical exam compared to their female counterparts (McKnight-Eily et al., 2014). Hispanics (22.5%) were more likely to have a conversation with their health care provider about their drinking habits compared to African Americans (19.4%) and Whites (13.7%) (McKnight-Eily et al., 2014). Also, of those who reported having a conversation with their primary care provider, almost 20% did not have a high school diploma, nearly 30% were considered unemployed, and nearly 30% reported having a barrier preventing them from working (McKnight-Eily et al., 2014). Consequently, less than 20% of current drinkers have ever had a conversation with their primary care provider about their drinking habits, and 25.4% of binge drinkers have ever discussed their alcohol misuse (McKnight-Eily et al., 2014). Young adults between the ages of 18 and 25 were more likely to exceed the recommended drinking allowance yet reported having fewer conversations with their primary health care provider about their excessive use, concluding the need to have regular patient-provider discussions with them during routine office visits (Hingson et al., 2012; McKnight-Eily et al., 2014). Despite the availability of screening tools for alcohol use, most were underutilized (McKnight-Eily et al., 2014). Implementing screening and brief intervention into an existing system such as the electronic health record (EHR) may further reduce alcohol consumption through yearly preventative screening notifications (McKnight-Eily et al., 2014).

### **Underage Drinking**

Nearly 50% of Texas youth in grades 7-12 have consumed one or more alcoholic beverage, and of those, almost 30% found alcohol readily available (Texas School Survey

of Drug and Alcohol Use, 2014). Nearly 59% of Texas youth (ages 12-17) perceived consuming five or more alcoholic drinks in one week as harmless, while only six percent of those youth sought treatment (Substance Abuse and Mental Health Services Administration, 2014). Adolescents who have a substance use disorder are also more likely to have a concurrent mental health disorder such as anxiety, depression or a conduct disorder (National Institute on Drug Abuse, 2012; Sterling, Valkanoff, Hinman & Weisner, 2012).

### **Mental Health Disorders**

Individuals with a mental health disorder or a serious mental illness (SMI) often have a co-occurring chronic disease and are more likely to die prematurely or at least 25 years sooner than individuals without a mental health disorder (Kaiser Family Foundation, 2014; The Texas Health Status, 2014). Also, persons with an SMI are more likely to have higher rates of unstable housing, increased incidence of complex preventable diseases, and higher rates of smoking and substance use (Del Boca, McRee, Vendetti & Damon, 2017; Kaiser Family Foundation, 2014). Untreated mental health disorders can clinically impair a person's ability to function throughout their daily routine (American Psychiatric Association, 2013; National Center for Health Statistics, 2016).

Depression and substance use are often interrelated. Depression is a diagnosable and treatable disorder among the multitude of disorders known as mental illness. Screening for depressive symptoms allows patients to receive early treatment. According to the *DSM-5* depression dramatically reduces a person's ability to function vocationally and socially (American Psychiatric Association, 2013). Adolescents between 9 and 17 years of age often have a mental health disorder which significantly interferes with social

interactions with peers (The Texas Health Status, 2014). In Texas, almost nine percent of youth ages 12 to 17 experienced at least one major depressive episode, with nearly 65% never receiving adequate treatment or any treatment at all (Substance Abuse and Mental Health Services Administration, 2014).

### **Social Determinants of Health**

In 2004, at the request of Congress, the Institute of Medicine (IOM) examined the health disparities prevalent in vulnerable populations (Nelson, Stith, & Smedley, 2002). In their findings, the IOM found higher incidences of health disparities in the quality of health care received by racial and ethnic groups. After accounting for lower socioeconomic status and less education, the IOM found race and ethnic groups experienced higher rates of health inequality and increased incidence in mortality rates (Nelson, Stith, & Smedley, 2002). Fourteen years later, health disparities are still a persistent concern that adversely affects the quality of life for MUPs. Understanding how health disparities and the social determinants of health affect MUPs is critical in gaining insight of the current needs and processes to improve the quality of care through health care delivery systems.

### **The Role of Social Work in Integrated Health Care**

As health care systems become increasingly integrated, social workers interested in advancing the field of social work in medicine will need to distinguish their role as members of an interprofessional team (Bargainer et al., 2016). Given the curriculum in psychopathology and motivational interviewing in generalist practice, social workers trained in intervention models are able to tackle such issues as substance use and mental health disorders. Social workers are often frontline personnel representing much of the

workforce in behavioral health due to their scope of practice (Bride, Kintzle, Abraham, & Roman, 2012). With the Council on Social Work Education (CSWE) garnishing support for the use of SBIRT in social work practice, the availability of trained practitioners entering the field of behavioral health may increase (Berger & Di Paolo, 2015). Social workers, as behavioral health professionals, can provide SBIRT to reduce the associated cost of hiring additional medical staff and are often readily available to do so (Berger & Di Paolo, 2015).

### **Evidence-Based Interventions**

Increasingly, the use of Evidence-Based Interventions (EBP) addressing behavioral health concerns is slowly gaining ground (McKnight-Eily et al., 2014; National Center for Health Statistics, 2016; U.S. Department of Health and Human Services, 2016). The National Institute on Drug Abuse is actively seeking to connect treatment with those who need it by promoting the use of SBIRT for early screening in primary care settings to increase treatment utilization (National Institute on Drug Abuse, 2012). Thus, early detection and treatment for risky substance use may prevent a myriad of problems associated with substance use and addiction. After a thorough search of EBP interventions for alcohol use, the researcher found screening and brief intervention models applicable to alcohol use. Alcohol abuse requires specialty inpatient or outpatient treatment modalities associated with the severity of use and may not be applicable for EBP interventions. Using a social work integrated EBP intervention such as the SBIRT model and the PHQ-9 is central in successfully integrating a behavioral health care component in primary care. Primary care patients may seek behavioral health services such as early screening, intervention and treatment modalities from an integrated primary

care provider (Kinman et al., 2015). As such, due to time constraints in routine care, providers are more likely to outsource convoluted behavioral cases without proper follow-up (Babor, Higgins-Biddle & World Health Organization 2001; Hunter, Goodie, Oordt & Dobmeyer, 2009; McKnight-Eily et al., 2014).

### **Screening, Brief Intervention, and Referral to Treatment**

A breadth of studies delineating the effectiveness of SBIRT in reducing substance use remain widely available (Babor et al., 2007; Berger & Di Paolo, 2015; Powers et al., 2016; Substance Abuse and Mental Health Services Administration, 2013). First proposed by the Institute of Medicine (IOM), SBIRT, a public health approach, explicitly aims to target behavioral risk associated with alcohol use. The Substance Abuse and Mental Health Services Administration endorsed the use of SBIRT in 2011 (SBIRT in SBHCs, 2015). Primary care providers are more likely to integrate SBIRT into their busy schedules due to an algorithm that takes less than 10 minutes to administer (Substance Abuse and Mental Health Services Administration, 2013). Incorporating an SBIRT program at a Texas FQHC will systematically screen for adolescent and adult alcohol consumption which in Texas remains the number one preferred and easily accessible drug of choice (Maxwell, 2015). Under ACA's push to extend Medicaid reimbursement for early detection and intervention, SBIRT is now a Medicaid reimbursable service in Texas for adults and adolescents aged ten and older. Approximately 93% of patients surveyed at a dental clinic felt providers had a duty to inquire about alcohol use, another 92% indicated they would respond truthfully, and 96% expected to receive information on alcohol use and health (Powers et al., 2016).

Despite the efficacy of using SBIRT in preventative care and the growing body of evidence suggesting its effectiveness in pediatric care, barriers in screening adolescents for potential alcohol use remain (Sterling et al., 2012). Providers unwilling to discuss alcohol use with their young patients and their failure to detect alcohol use presented barriers to screening (Sterling et al., 2012). An American Academy of Pediatrics' study suggested less than 46% of the fellows screened their young patients for alcohol use, and less than 17% reported using a standardized screening tool (Sterling et al., 2012). Another study found issues with misidentifying adolescents, as among the nearly 17% of adolescents with a diagnosable substance use disorder only approximately three percent were adequately identified as having a problem (Sterling et al., 2012). The American Academy of Pediatrics also found 78% of pediatricians reported having less time to screen their young patients, making this the number one barrier to early screening (Sterling et al., 2012).

### **Medicaid Reimbursement for SBIRT**

According to Medicaid, SBIRT guidelines include certification of all unlicensed SBIRT providers. Unlicensed providers include all members of the medical team who are unauthorized to provide medical care including social work interns. Training courses are widely available through leading experts in the field of SBIRT implementation such as the National Opinion Research Center (NORC) at the University of Chicago and the Institute for Research, Education & Training in Addictions (IRETA). Documentation should include the name of the provider screening the patient, beginning and end times of brief intervention, and the goals developed through patient/provider goal setting. Medicaid also requires FQHCs to maintain copies of the certificate of completion and a



list of certified SBIRT providers approved to provide SBIRT by the supervising medical director. Copies of documents and a list of providers should be readily available during Medicaid regulatory visits. SBIRT providers should use the Five A's Model (Appendix E) as a guide in providing SBIRT services.

### **Screening**

Authorized providers administer the 10-item AUDIT (Appendix F) screening tool for adults or the six-item CRAFFT (Appendix G) screening tool for patients 18 and under who indicate alcohol use during prescreening. While both the AUDIT and the CRAFFT are self-reporting tools, patients are less likely to give an honest answer if they fear their primary care provider will have negative perceptions of their alcohol use (Substance Abuse and Mental Health Services Administration, 2013). A patient's understanding of the screening tool and their motivation to participate may also affect the screening process (Substance Abuse and Mental Health Services Administration, 2013). Patients receiving services from an FQHC benefit from universal screening for alcohol use to detect early to moderate risk of developing a substance-related disorder.

### **Brief Intervention**

Along the change continuum, Brief Intervention (BI) empowers the patient to make changes necessary to improve health care outcomes. Subsequent screening and BI may occur up to four times a year under Medicaid guidelines if patients score moderately on the AUDIT or answer yes to two or more questions on the CRAFFT (Babor et al; Knight, et al, 1999). Additionally, BI employs motivational interviewing (MI) to assess a patient's consumption awareness, evokes a change response, and elicits goal setting commitments as postulated by Miller and Rollnick (2013). A randomized control study

conducted by Satre et al. (2016), examined the effects of MI on patients with alcohol use. The researchers found MI to be effective in reducing consumption over a six-month period (Satre et al., 2016). It is worth noting that MI is ineffective with patients who wait until their drinking leads to addiction, thus needing extensive specialty care (Satre et al., 2016). Patients provided with BI may feel knowledgeable in making informed medical decisions regarding their alcohol use.

### **Referral to Treatment**

Referral to treatment occurs when alcohol abuse or addiction is suspected, needing full treatment utilization from a licensed behavioral health specialist. A referral to a treatment facility to address alcohol addiction is warranted if the patient scores higher than a fifteen on the AUDIT indicating moderate to severe usage (Babor et al).

### **PHQ-9**

According to the American Psychiatric Association (APA), the PHQ-9 serves as a validated, self-administered diagnostic screening tool to evaluate a patient's depressive symptoms using *DSM-IV* criteria for depression (2013). The PHQ-9 assesses a patient's level of depression and uses an aggregated score to evaluate and treat depressive symptoms (American Psychiatric Association, 2013). PHQ-9 scores vary between 0-27, with 27 being the highest possible score (Kroenke, Spitzer, & Williams, 2001). Scores range from 0-4, minimal or not likely to be depressed; 5-9, as mild; 10-14, moderate; 15-19, moderately severe; and 20-27 as severe (Kroenke, Spitzer, & Williams, 2001). The reporting score for the Abilene Community Health Center (ACHC) is six, with six being mild depressive symptoms.

## **Electronic Health Records**

Electronic Health Records (EHR) are becoming increasingly convenient with 80% of doctors using an EHR to track patient information, i.e., demographics, medical history and prescription use (National Center for Health Statistics, 2016). EHRs are also a useful tool to coordinate preventative measures for early and routine screening of preventable diseases including reminders to screen for substance use and mental health symptoms.

### **The Statement of Purpose**

The purpose of this study is to gather preliminary data during a two-month period to support the need for integrated care at a Texas FQHC and improve implementation that could work to improve the screening process and identify barriers to full implementation. Preliminary analysis showing the effectiveness of a social work integrated behavioral health program may determine the continued need for such programs. Developing an integrated behavioral health program using the SBIRT model and the PHQ-9 scale requires extending quality health care measures using CQI to improve behavioral health screening for MUPs at a Texas FQHC (National Center on Addiction and Substance Abuse at Columbia University, 2012). While the overarching intent is to eventually implement a behavioral health program, developing the process to full implementation is central to the effectiveness and sustainability of the program.

## CHAPTER IV

### METHODOLOGY

This study will analyze the existing data provided by the Abilene Community Health Center (ACHC) to evaluate the need for an integrated behavioral health program. This study constitutes a preliminary step toward addressing the aim of integrating care to improve behavioral health screening for MUPs at a West Texas FQHC. This section describes the research method and design, as well as operationally defined keywords.

#### **Research Design**

The researcher will use a descriptive, quantitative approach to study the needs identified through the patient profile summary as well as the results of AUDIT and PHQ-9 scores gathered at the ACHC.

#### **Population and Sample**

The ACHC provides comprehensive health care for patients who qualify under a variety of health care plans. ACHC's mission aims to end health disparities for those most at risk. The ACHC staff will randomly select a group to screen out of the patients seen during April 2017 and May 2017. Prescreening will occur during the initial nurse intake using an annual health questionnaire. If patients answer "yes" to alcohol use, the social work intern will administer the full AUDIT scale. Patients scoring higher than an eight on the AUDIT will be identified as needing brief intervention. The social work

intern will assess all patients for depressive symptoms regardless of prior mental health diagnosis.

### **Data Analysis Process**

This researcher will use a statistical analysis software program known as Statistical Package for the Social Sciences (SPSS) to enter all quantitative data (Cao, Yu, Ma, Chen, & Yang, 2014). Dr. Wayne Paris, professor of Social Work at Abilene Christian University (ACU), will supervise the use of SPSS and the analyzation of data. This study will use the following statistical methods to analyze results from the AUDIT and PHQ-9. Descriptive statistics including a cross-tabulation will investigate the bivariate relationships between variables to determine the significance of associations and differences.

### **Instruments**

The researcher will gather data from two paper scales, one regarding the patient's alcohol consumption and the other regarding the patient's depressive symptoms. The AUDIT will provide a numerical score for adult alcohol use, and the PHQ-9 will provide a metric for mental health status. The patient's profile will be used to collect demographic data such as age, gender, marital status, living arrangements, level of education, and payor source.

### **Operational Definitions**

**Alcohol Use Disorder Identification Test (AUDIT).** Established by the World Health Organization (WHO), the AUDIT is a 10-item screening tool used to assess alcohol use and misuse (Babor et al., 2001; Substance Abuse and Mental Health Services Administration, 2014). The AUDIT, when employed in a primary care setting, takes less

than ten minutes to administer and score (Substance Abuse and Mental Health Services Administration, 2014). The AUDIT is a validated tool used to screen adults and adolescents for alcohol use; however, one study concluded the AUDIT is less applicable when used to screen adolescents in primary care (Knight, Sherritt, Harris, Gates, & Chang, 2003).

**Car, Relax, Alone, Forget, Family, or Friend, Trouble (CRAFFT).** Knight et al., further concluded the CRAFFT, a six-item questionnaire, is an appropriate tool for adolescents ages 10-17 and has also been shown to have specific validating criterion when administered to this age group.

**Personal Health Questionnaire (PHQ-9).** According to APA the PHQ-9 serves as a self-administered validated diagnostic screening tool to appraise a patient's depressive symptoms using *DSM-IV* criteria for depression. The PHQ-9 assesses the patient's mood, anxiety, and somatoform symptoms to further evaluate a patient's mental health status (American Psychiatric Association, 2013). The PHQ-9 has been shown to have validity and is used in various settings to assess for depressive symptoms (Umegaki, & Todo, 2017).

**Demographic characteristics.** The patient profile used by the ACHC include the following demographics: Gender, age, race, ethnicity, education level, marital status, socioeconomic level, and stability in housing. Gender is either female or male.

**Statistical Package for the Social Sciences (SPSS).** SPSS is a statistical analysis software program often used in quantitative research (Cao, Yu, Ma, Chen, & Yang, 2014). Data analysis will occur under the supervision of Dr. Wayne Paris, professor of Social Work at ACU.

**IRB Consideration**

Before conducting this research project, the researcher will obtain an affiliation agreement between the Texas Tech University Health Science Center (TTUHSC) and ACU. Data will not have any identifying demographics or medical information that would raise questions about patient confidentiality; also, this work will access information related to the PHQ-9 and SBIRT and profile information only. Thus, it will qualify for exempt status under the guidelines established by the Institutional Review Board (IRB) to protect human subjects used in research. The initial application has been submitted to TTUHSC and once received an affiliation agreement will be requested from ACU's human subject committee. The researcher will store the data collected on a flash memory device kept in a locked office and viewed only on a password-protected computer found on the premises. The computer will have the proper firewalls, virus protection, and encryptions to prevent access to confidential information. Also, the computer will have an automatic lockout function after 15 minutes of inactivity in case the researcher walks away from the computer or forgets to log off.

## CHAPTER V

### RESULTS

The sample consisted of 100 patients ( $n=100$ ) who presented at the Abilene Community Health Center during a two-month period. Patients were assessed using the PHQ-9 and AUDIT and given a profile summary to fill out. The researcher conducted a frequency test to determine the means age. The sample group is middle age ( $M=40.46$ ), with the means age falling within the median age of 39.00. Of the 100 patients sampled there were slightly more males 55 (55%) than females 45 (45%). Fifty (50%) identified as Caucasian, 16 (16%) as African American, 23 (23%) as Hispanic, three (3%) were Asian and another five (5%) identified as other (see Table 1). English was the primary language spoken by over 90 (90%) of the patients (see Table 1).



Table 1

*Frequency of Demographics*

Demographic Variable	Frequency	Percent	Cumulative Percent
Gender			
Male	55	55	55
Female	45	45	100
Race			
Caucasian	50	50	50
African American	16	16	66
Hispanic	23	23	89
Asian	3	3	92
Other	5	5	97
Not Reported	3	3	100
Primary Language			
English	92	92	92
Spanish	1	1	1
Other	5	5	98
Not Reported	2	2	100

Single, unmarried patients (50%), comprised exactly half of the sample, 25 (25%) classified as married, 13 (13%) stated they were divorced, and two (2%) were widowed, making this the smallest group (see Table 2).

Table 2

*Frequency of Marital Status*

Marital Status	Frequency	Percent	Cumulative Percent
Single	50	50	50
Married	25	25	75
Separated	3	3	78
Divorced	13	13	91
Widowed	2	2	93
Not Reported	7	7	100
Total	100	100	

Regarding employment status, 30 (30%) patients indicated full-time employment, and six (6%) had part-time employment (see Table 3). Eight (8%) were not in the labor

force, five (5%) were retired, four (4%) were students, and 34 (34%) were unemployed (Table 3). Individuals (13%) did not report their employment status (see Table 3).

Table 3

Employment Status	Frequency	Percent	Cumulative Percentage
Full Time	30	30	30
Part Time	6	6	36
Not in Labor Force	8	8	44
Retired	5	5	49
Unemployed	34	34	83
Student	4	4	87
Not Reported	13	13	100
Totals	100	100	

Of the study sample, 50 patients (50%) reported not being homeless, making this the largest group (Table 4). Four individuals reported doubling up or having a roommate (4%), two (2%) reported living in the streets, two (2%) reported transitional, 22 (22%) reported other, and 20 (20%) of the patients did not report their living situation (see Table 4).

Table 4

Living Situation	Frequency	Percent	Cumulative Percentage
Transitional	2	2	2
Doubling Up	4	4	6
Street	2	2	8
Other	22	22	30
Not Homeless	50	50	80
Not Reported	20	20	100
Totals	100	100	

Regarding education level, 10 (10%) had less than high school education, 11 (11%) had some high school, 45 (45%) either had a high school diploma or GED, 20

(20%) had some college, and 11 (11%) were college graduates. One (1%) indicated having a master's level education, representing the smallest group, and two (2%) of the patients did not report their level of educational attainment (see Table 5).

Table 5

*Frequency of Education Level*

Education Level	Frequency	Percent	Cumulative Percentage
Less Than High School	10	10	10
Some High School	11	11	21
HS Graduate/GED	45	45	66
Some College	20	20	86
College Graduate	11	11	97
Master's	1	1	98
Not Reported	2	2	100
Totals	100	100	

Regarding payment source, 33 (33%) had Medicaid, six (6%) had Medicare (6%), and 37 (37%) were self-pay patients, representing the largest payment source, followed by 18 (18%) patients who reported having private insurance (see Table 6).

Table 6

*Frequency of Payment Source*

Payment Source	Frequency	Percent	Cumulative Percentage
Medicaid	33	33	33
Medicare	6	6	39
Self-Pay	37	37	76
Private Insurance	18	18	94
Not Reported	6	6	100
Totals	100	100	

Table 7 categorizes the PHQ-9 scores into levels of severity. Of the sample, 41 (41%) indicated possible minimal or no depressive symptoms, 27 (27%) indicated possible mild symptoms. Eleven (11%) indicated possible moderate depressive

symptoms. Fourteen (14%) indicated possible moderately severe symptoms and four (4%) of the scores show possible severe depressive symptoms (see Table 7).

Table 7

*Frequency Distribution of PHQ-9 Scores*

Classification	Frequency	Percent	Cumulative Percentage
Minimal 0-4	41	41	41
Mild 5-9	27	27	68
Moderate 10-14	11	11	79
Moderately Severe 15-19	14	14	93
Severe >17	4	4	97
Not Reported	3	3	100
Total	100	100	

Of the sample, 21 (21%) patients had a prior mental health diagnosis, four (4%) had a new diagnosis, and 33 (33%) reported scores higher than six or more on the PHQ-9 but went unaddressed by a provider during their first office visit (Table 8). Forty-two (42%) scored less than six (see Table 8).

Table 8

*Frequency of Diagnosis*

Diagnosis	Frequency	Percent	Cumulative Percentage
Prior Diagnosis	21	21	21
New Diagnosis	4	4	25
Not Addressed	33	33	58
PHQ-9 Score less than 6	42	42	100
Totals	100	100	

Of the study sample, 34 (34%) patients have never consumed alcohol, while 16 (16%) reported prior alcohol use (see Table 9). Table 9 gives a breakdown of the AUDIT scores.

Table 9

*Frequency of AUDIT Scores*

AUDIT Scores	Frequency	Percent	Cumulative Percentage
Never Consumed	34	34	34
1	10	10	44
2	10	10	54
3	6	6	60
4	5	5	65
5	2	2	67
6	3	3	70
8	3	3	73
14	2	2	75
16	1	1	76
17	1	1	77
36	1	1	78
Time Constraint	6	6	84
Prior Alcohol Use	16	16	100
Total	100	100	

Regardless of mental health status, patients benefit from health care coverage; however, results from a cross-tabulation analysis (Table 10) found of the patients who had a prior diagnosis eight (8%) were self-paying and 13 (13%) had health care coverage. Patients diagnosed during their first visit, four (4%) were self-paying and of those who went undiagnosed 15 (15%) had medical coverage and 16 (16%) were self-paying.

Table 10

*Cross-Tabulation Diagnosis, Payment Sources*

Diagnosis	Medicaid	Medicare	Self Pay	Private Insurance	Not Reported	Total
Prior Diagnosis	9	1	8	3	1	22
New Diagnosis	0	0	4	0	0	4
Score Not Higher Than A Six	15	4	9	10	3	41
Score Higher Than a Six Not Addressed	9	1	16	5	2	33
Totals	33	6	37	18	6	100

## CHAPTER VI

### DISCUSSION

#### **Review of the Findings**

The premise of this study was to gather preliminary data from patients presenting at the ACHC during their first visit. The researcher used scores from the AUDIT and PHQ-9 and information found on the patient summary to find relevant factors supporting the need for integrated care at the ACHC. Since the literature provided limited information on the integration of a behavioral health component in primary care using the SBIRT model and PHQ-9, the present study advances the body of research in this area. Largely, integrating a behavioral health program at a Texas FQHC such as the ACHC requires the use of standardized tools that are easily administered, produce immediate results, and are accessible through the electronic health record.

Patients dependent on FQHCs for their primary health care needs also face complex health disparities contributing to poorer health outcomes. Citing findings from the World Health Organization (WHO) and the Center for Disease Control (CDC), integrated care requires a comprehensive approach to implementation. Defined by WHO in Chapter 1, determinants, such as low socioeconomic level, low educational attainment, and housing instability have shown to complicate health care parity for MUPs. Of the 100 patients in the study population, 50% were either unemployed, not in the workforce, or retired, and 66% had a high school education or less. Thirty percent of the patients

experienced unstable housing including: doubling up, homelessness, other as living in a temporary shelter, or vehicle and transitioning from one living area to another. The present study found risk factors preventing patients from reaching optimal health. Despite efforts to mitigate the underlying causes of health disparities, they continue to exist. With at least half of the study population experiencing one or more risk factors, FQHCs play an integral role in improving health care outcomes for their patients. With the integration of proper guidance and tools, FQHCs can improve care for patients with complex unmet needs. However, the process to integration remains burdensome for FQHCs as they struggle to meet the ongoing challenges to treat their patients holistically.

A 2013 report by Shin et al., indicated nearly 40% of all patients seen at an FQHC had Medicaid health care coverage. Presently, of the 100 patients, 33% had Medicaid, and 37% were self-paying, demonstrating the need to identify existing barriers to enrollment for those who meet eligibility guidelines under Medicaid. For non-qualifying patients, finding other payor-sources such as the patient assistance or county indigent programs may improve the financial burden for patients with unmet health care needs. FQHCs who receive a fee for service reimbursement under Medicaid gain from identifying patients who qualify for Medicaid health care coverage. Texas Medicaid is a significant funding source for SBIRT.

Paramount to the study was the reported use of the AUDIT and PHQ-9 assessment tools to gain practical information in determining the advantages of implementing a behavioral health component at the ACHC. Wyatt et al (2016) concluded that 40% of all preventable deaths are directly related to human behavior. Since 40% of all deaths are avoidable through preventative and interventive measures, such studies may

support research in this area to advance understanding of the relationship between human behavior and health care parity to increase life expectancy for MUPs. According to the Kaiser Family Foundation, patients with complex physical and behavioral needs die on average 25 years sooner than their healthier counterparts (2014).

After analyzing the AUDIT scores, the researcher found 34% reported never consuming alcohol, 16% reported quitting before the study, and 44% consumed one or more drinks in the past year. Sixty percent had prior or current alcohol use, indicating the need for regular patient-provider conversations and the use of annual preventative screening tools. Also, of the 16% who reported past alcohol use, what is unclear is their motivation for quitting. Determining motivational factors leading to recovery may prove useful when eliciting change talk during the brief intervention phase of SBIRT.

Mental health, on the other hand, has implications on treatment utilization and the use of early screening tools to assess, diagnose and treat symptoms of depression. Using the PHQ-9, of the 100 patients in the study, at least 56% had mild to severe depressive symptoms indicating a need to assess for mental health symptoms during regular checkups. Prior to the study, 21% of the patients had a previously diagnosed mental health disorder, four percent were diagnosed during their first visit and subsequently offered treatment options including psychopharmacological treatment. However, 33% who scored higher than a six went undiagnosed or untreated. Of the 33%, 16% were self-paying patients. Under the current literature, depression is a treatable diagnosis with a variety of treatment options.



### **Implications for Social Work Practice**

Within the broader context of social work practice is the innate desire to provide inclusionary care. With the profession's continued advancements in primary care, medical social workers can distinguish their role as proponents of holistic care. As evident by the results, as many as 50% were affected by one or more of the social determinants of health exacerbating a patient's ability to reach optimal health.

Community-based health care providers looking to care for their patients holistically need to consider integrating programs designed to address not only the behavioral needs of their patients but the social determinants of health. Combining treatment utilization and clinical practice provide opportunities to coordinate interprofessional modalities in primary care using social work practitioners to improve service delivery. Social workers, as members of an interprofessional team, can garnish support for converging systems of care for those most at risk for having their health care needs unmet.

## CHAPTER VII

### CONCLUSIONS

This study aimed to gather preliminary data solidifying the implementation of a social work program using standardized tools to assess patients seen at the Abilene Community Health Center (ACHC) for alcohol use and depression. As indicated in the findings, having regular conversations regarding a patient's risk behavior and their unmet social needs contributes significantly to health outcomes. Using Continuous Quality Improvement (CQI) measures, FQHCs looking to implement these changes, into their routine care, may increasingly improve health care services.

However, lack of research in this area may be troubling to community-based centers willing to contribute to the overall health of their patients, but lacking data-driven information to move forward with implementation. To that end, the saliency to end dichotomous treatment may give rise to the importance of using integrated care as a treatment modality. Also, the researcher hopes to contextualize the need to incorporate social workers into community-based health care settings who are competent in evidence-based interventions and knowledgeable in finding common barriers to adequate health care for MUPs. Social work efforts to integrate systems of care for MUPs will likely lead to cost-efficient programs for community-based centers dependent on federal and state funding. Accessing needed services becomes convoluted for MUPs who rely on multiple support systems in one location while also overcoming the social determinants of health.

As integrative care continues to develop new knowledge, understanding social and behavioral factors and the exacerbation of health disparities may contribute to improved health care for MUPs. Integrating medical social workers using cost-efficient and reimbursable interventions such as the SBIRT model may be geographically helpful for other FQHCs in Texas who are interested in providing holistic care. The knowledge gained through this study demonstrated patients face a myriad of risk factors which interfere significantly with their ability to achieve health care parity.

The cost associated with health disparities, substance use and mental health disorders and the prevalence of each continues to reach epidemic proportions furthering the importance of advancing knowledge in this area. Seen as a public health crisis costing millions to ameliorate the problem, the strain on the vitality of the U.S. economy rests on the assurance Americans remain committed to making America healthy again.

### **Limitations of the Study**

A limitation of this study was the inclusion of adult patients only, limiting the study's aim to one demographic. Due to time constraints and IRB considerations and added protections for children involved in research, this limited the study's population. An inclusionary sample between the ages of ten to adulthood would have given a more comprehensive overview of the need to assess for depression and alcohol use in adults and adolescents. A diverse cohort simulating the local demographic targeted by most community-based centers would have given a consensus on the need to assess their younger patients. Considering Texas Medicaid extends SBIRT reimbursement for children ten years of age and older, having this data could give the additional evidence needed to incorporate screening tools designed for adolescents such as the PHQ-9A and

the CRAFFT. According to the Texas School Survey of Drug and Alcohol Use, 50% of all youth have had at least one drink. Nearly 10% have had at least one depressive episode in their lifetime with almost 65% going untreated. A subset of integrated care is recognizing risk behavior in young patients and conveying the need for other specialty care in the event scores reveal a need to do so. Another limitation was the study's two-month timeline to gather data; it is unknown whether patients had subsequent visits after their first visit.

### **Implications for Further Research**

The data generated through this study further conclude advancing the need to research the interrelated constructs centric to human behavior and social determinants. This researcher recommends similar studies highlighting the need for both qualitative and quantitative data allowing patients to share information about their mental health status and substance use. Also, giving a presurvey assessing the patient's knowledge of concurrent diagnoses helps establish a baseline for providers in determining the patient's level of understanding of symptoms, diagnoses and treatment options to increase a patient's level of commitment to retention care, compliancy and recovery.

Additionally, 33% of the study sample had undiagnosed depressive symptoms; a longitudinal study may provide useful information regarding a patient's first visit and subsequent care. Data gathered over time using the same study sample may be more beneficial in determining the effectiveness of using interventions designed to assess, diagnose and treat.

The need for integrated health care may become increasingly evident as the number of patients with co-occurring diagnoses increases. The findings of the current

study corroborate existing literature on the challenges felt by MUPs and the substantial need for FQHCs to improve health care further amplifying the need for integrated care.

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## APPENDIX A

### IRB Approval Letter

**ABILENE CHRISTIAN UNIVERSITY**  
*Educating Students for Christian Service and Leadership Throughout the World*

Office of Research and Sponsored Programs  
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103  
325-674-2885



10/20/2017

Wayne Paris  
Department of Social Work  
ACU Box 27866  
Abilene Christian University

Dear Dr. Paris,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled *Improving Integrated Care for Medically Undeserved Patients at a Texas-FQHC Using SBIRT and PHQ-9* (IRB# 17-076 ) is exempt from review under Federal Policy for the Protection of Human Subjects (45 CFR 46.101(b)(4)).

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

*Megan Roth*

Megan Roth, Ph.D.  
Director of Research and Sponsored Programs

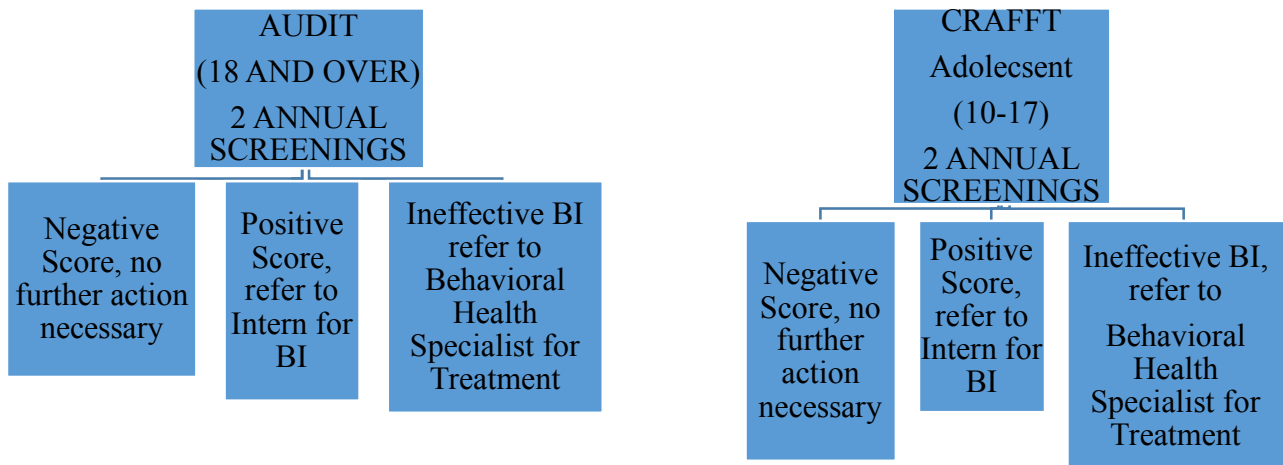
## APPENDIX B

### SBIRT MODEL

#### SCREENING, BRIEF INTERVENTION (BI) AND REFERRAL TO TREATMENT (RT)

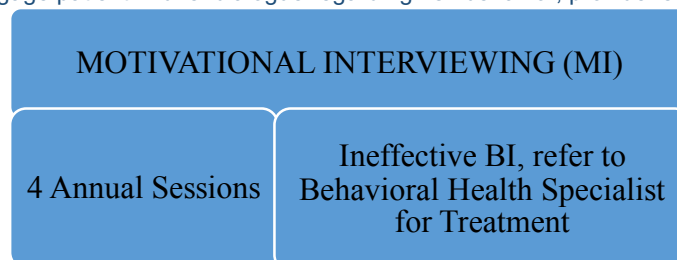
##### SCREENING

Assess patient's risk behavior using a standardized screening tool



##### BRIEF INTERVENTION (BI)

Engage patient in brief dialogue regarding risk behavior, provide feedback, goal setting



##### REFERRAL TO TREATMENT (RT)

BEHAVIORAL HEALTH SPECIALIST

APPROPRIATE FOLLOW-UP



## APPENDIX C

### PHQ-9 Patient Questionnaire

To provide the highest standard of care and meet the requirements of your insurance company, we ask that you fill out the form below. This form is used as both a screening tool and a diagnostic tool for depression. Your provider will discuss the form with you during your visit. Thank you for your cooperation and the opportunity to care for you.

- Over the *last two weeks*, how often have you been bothered by any of the following problems?

Not at all    Several Days    More than    Nearly half the days    every day

	1	2	3	4
a. Little interest or pleasure in doing things.				
b. Feeling down, depressed, or hopeless.				
c. Trouble falling/staying asleep, sleeping too much.				
d. Feeling tired or having little energy.				
e. Poor appetite or overeating.				
f. Feeling bad about yourself – or that you are a failure or have let yourself or your family down.				
g. Trouble concentrating on things, such as reading the newspaper or watching TV.				
h. Moving or speaking so slowly that other people could have noticed or the opposite, fidgety or restless that you have been moving around a lot more than usual.				
i. Thoughts that you would be better off dead or hurting yourself in some way.				

2. If you checked off any problem on the questionnaire so far, how difficult have these problems made it for you to do your work, take care of things at home and be around other people?

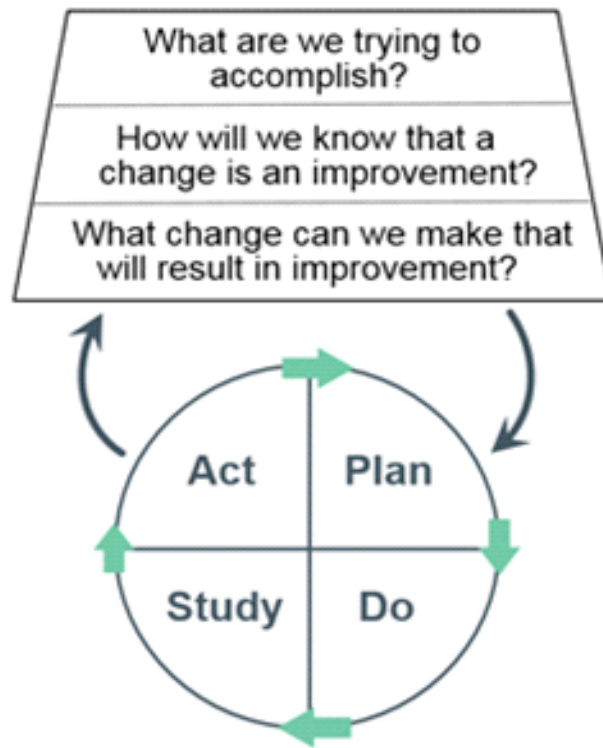
Not difficult at all    Somewhat difficult    Very difficult    Extremely difficult

## APPENDIX D

### Model for Improvement

Plan Do, Study, Act (PDSA) Cycle

### Model for Improvement



## APPENDIX E

### American Medical Association (AMA) Guide

<p>American Medical Association (AMA) Guide to appropriate Medicaid coding and billing. Using the Five A's model may be useful and considered the start of Screening and Brief Intervention (BI): Screening (Ask, Assess-H0049), Brief Intervention (Advise, Assist, and Arrange- 99408, 99409).</p>
<p><b>ASK-H0049-Ask permission to talk about patient's alcohol use.</b></p>
<p>“Would you mind if we talked more about your alcohol use?”</p>
<p><b>Ask about patient's alcohol pattern use.</b></p>
<p>“I'd like to talk more about the type of alcoholic beverages you are consuming and the frequency of your consumption? “You indicated you are consuming more than the recommended limits; please tell me again how many times in the past 30 days you have had more than 4 drinks (for women) or 5 drinks (for men) in a day?”</p>
<p><b>Avoid arguing or confrontation.</b></p>
<p><b>ASSESS-99408-99409- Assess for alcohol use disorders.</b></p>
<p>“Based on your responses, I am concerned about how much you're drinking and how it can affect your health.”</p>
<p>“You are drinking alcohol at a level that puts you at increased risk for alcohol-related illnesses.” Determine whether patient's alcohol use has caused clinically significant impairment or distress; “In the past 12 months, has your drinking caused or contributed to the following: risk of bodily harm, relationship problems, role failure, and/or run-ins with the law</p>
<p>In the past 12 months, have you not been able to cut down or stop drinking, not been able to stick to drinking limits, shown tolerance, shown signs of withdrawal, kept drinking despite problems, spent a lot of time drinking, and spent less time on other matters?</p>

Determine if the patient has risky or harmful drinking behavior (alcohol misuse but no abuse or dependence). If alcohol dependence is suspected, consider further evaluation or referral to a behavioral health specialist.
<b>ADVISE- 99408-99409- Advise patient of your assessment and recommendations related to the findings.</b>
“You are drinking more than is medically safe.” Relate to the patient’s concerns and medical findings if present. I recommend that you cut down (or quit).
<b>ASSIST-AARRANGE-99408-99409-Goal setting</b>
Determine if the patient is ready to change their behavior. If so, assist with setting goals. Recommend cutting down to maximum drinking limits or abstaining. Agree on a plan, to include specific steps the patient should take, how drinking will be tracked, how the patient will manage high-risk situations, and who might be willing to help, such as a spouse or non-drinking friends. Provide educational materials.
“Are you ready to commit to changing your drinking behavior?” “I think it would be good if we talked about establishing goals around drinking alcoholic beverages...”
Restate your concern and reaffirm your willingness to help Arrange, reinforce adherence, renegotiate drinking goals, encourage return visits for continued support, and rescreen, at least annually.

### Medicaid Reimbursement Rates under the America Medical Association (AMA)

H0049 Alcohol and drug screening only (code not widely used) \$24.00
<b>99408</b> Alcohol and substance abuse structured screening and brief intervention services; 15 to 30min \$33.41
<b>99409</b> Alcohol and substance abuse structured screening and brief intervention services; greater than 30 min \$65.51

APPENDIX F

**Adult Use Alcohol Use Disorder Identification Test (AUDIT)**



AUDIT	Scoring system					Your score
	0	1	2	3	4	
How often do you have a drink containing alcohol?	Never	Monthly or less	2 - 4 times per month	2 - 3 times per week	4+ times per week	
How many units of alcohol do you drink on a typical day when you are drinking?	1 -2	3 - 4	5 - 6	7 - 9	10+	
How often have you had 6 or more units if female or 8 or more if male, on a single occasion in the last year?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you failed to do what was expected of you because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you needed an alcoholic drink in the morning to get	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	

yourself going after a heavy drinking session?						
How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you been unable to remember what happened the night before because you had been drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
Have you or somebody else been injured as a result of your drinking?	No		Yes, but not in the last year		Yes, during the last year	
Has a relative or friend, doctor or other health worker been concerned about your drinking or suggested that you cut down?	No		Yes, but not in the last year		Yes, during the last year	

**Scoring:** 0 – 7 Lower risk, 8 – 15 Increasing risk, 16 – 19 Higher risk, 20+ Possible dependence

APPENDX G

**Car, Relax, Alone, Forget, Family, or Friend, Trouble (CRAFT) Questionnaire**

1. Have you ever ridden in a Car driven by someone (including yourself) who was high or had been using alcohol or drugs?
Yes No
<b>2. Do you ever use alcohol or drugs to Relax, feel better about yourself, or fit in?</b>
Yes No
<b>3. Do you ever use alcohol or drugs while you are by yourself Alone?</b>
Yes No
<b>4. Do you ever Forget things you did while using alcohol or drugs?</b>
Yes No
<b>5. Do your Family or Friends ever tell you that you should cut down on your drinking or drug use?</b>
Yes No
<b>6. Have you ever gotten into Trouble while you were using alcohol or drugs?</b>
Yes No

2 or more positive (Yes) items indicate the need for further assessment.

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