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Medicaid Expansion, Medicaid Reimbursement Methodologies, and Counselor Employment at Federally Qualified Health Centers

Alison Phillips Sheesley

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Entitled: Medicaid Expansion, Medicaid Reimbursement Methodologies, and Counselor Employment at Federally Qualified Health Centers

has been approved as meeting the requirements for the Degree of Doctor of Philosophy in College of Education and Behavioral Sciences in School of Applied Psychology and Counselor Education, Program of Counselor Education

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ABSTRACT


Advocacy for the counseling profession necessitates a thorough understanding of the factors influencing the hiring and reimbursement of licensed professional counselors. The Patient Protection and Affordable Care Act (ACA) enacted several health care reforms that may influence the utilization of mental health services and the employment of mental health professionals. These reforms included the option for states to expand their Medicaid population (effective January 1, 2014), mental health parity requirements for most insurance plans including Medicaid plans, and increased funding for Federally Qualified Health Centers (FQHCs or health centers). FQHCs, created by Congress in 1989, provide primary care services, including mental health services, to approximately 24 million Americans annually and function as a vital safety net for medically underserved communities and populations.

The largest source of revenue for FQHCs is Medicaid, and FQHCs receive enhanced reimbursement for services provided to Medicaid patients, known as the Medicaid Prospective Payment System (PPS) rate. Federal law, however, explicitly approves only certain health care professions as billable PPS providers. Licensed clinical social workers (LCSWs), along with psychologists and psychiatrists, are included as billable PPS providers under federal law, but not licensed professional counselors (LPCs). Some states have expanded the list of health care professions able to generate
billable PPS encounters at FQHCs to include licensed professional counselors. It is vital for the counseling profession to understand the impact of these reforms and the interplay of federal and state policies related to reimbursement upon the mental health industry.

The optional Medicaid expansion provision of the ACA created an opportunity for a natural experiment to compare mental health service utilization and employment at FQHCs in Medicaid expansion states versus non-Medicaid expansion states. This quasi-experimental study first tested the causal impact of Medicaid expansion on the number of mental health visits and full-time equivalent (FTE) mental health staff at FQHCs, using state-level data gathered from FQHC reports submitted annually to the Uniform Data System. A count model difference-in-differences analysis strategy compared utilization and employment numbers in 2012-2013 (pre-Medicaid expansion) and 2014-2015 (post-Medicaid expansion) between Medicaid expansion states and non-Medicaid expansion states. Then, a two-sample test of proportions utilizing data from a research-developed employment survey examined the relationship between states approving counselors and states not approving counselors as billable FQHC mental health providers under the enhanced PPS reimbursement and the proportion of LPCs at FQHCs (of the total number of LPCs and LCSWs).

In both groups of states (Medicaid expansion states and non-Medicaid expansion states), it was evident that there was a substantial increase in the number of mental health visits and FTE mental health staff at FQHCs from 2012 to 2015. Contrary to prediction, the first count model difference-in-differences analysis indicated that non-Medicaid expansion states had a significantly higher rate of change in the number of mental health visits from pre-Medicaid expansion (2012-2013) to post-Medicaid expansion (2014-2015).
2015), as compared to Medicaid expansion states (α = .05, p = .01). Then, contrary to prediction, the second count model difference-in-differences analysis indicated that there was not a significant difference in the rate of change for the number of FTE mental health staff between Medicaid expansion states and non-Medicaid expansion states from pre-Medicaid expansion (2012-2013) to post-Medicaid expansion (2014-2015; α = .05, p = .13). As predicted, the two-sample test of proportions resulting from the survey responses of 138 FQHCs (60% response rate) indicated that there was a significantly higher proportion of LPCs employed at FQHCs in states approving LPCs as billable FQHC mental health providers under PPS as compared to states not approving LPCs (Z = 4.24, p < .001, Cohen’s h = .76). Thus, counselor employment at FQHCs was significantly improved in those states approving counselors as billable PPS providers. It is essential for counselors to understand the impact of federal and state health care policies, such as Medicaid expansion, increased funding of FQHCs, and various Medicaid reimbursement methodologies, to successfully advocate for the profession in the dynamic health care landscape. Counselor educators have a responsibility to convey information to students related to the potential repercussions of billable mental health provider status on their employment opportunities following graduation.
ACKNOWLEDGEMENTS

“There is always a well-known solution to every human problem—neat, plausible, and wrong.” —H.L. Mencken

Reflecting on the past four years, really the past seven years, I recognize that there are many, many people who have contributed to the successful completion of my doctoral degree. I am so privileged to have been able to focus on higher education for such a significant portion of my life. I first want to extend my appreciation to my committee chair, Dr. Elysia V. Clemens, and to my entire dissertation committee—Dr. Heather Helm, Dr. Jennifer Murdock Bishop, and Dr. Thomas Dunn. Without your guidance and feedback, I would not have been able to finish this project or this degree. This sentiment is also true for the statistical experts Michael Floren and Dr. Trent Lalonde. Further thanks to my first counseling internship supervisor Michael Barry and to the faculty at Loyola University New Orleans for supporting my research interests from the very beginning. I am also indebted to the clients I have worked with since starting this journey, who have taught me more than I can ever express.

I must also thank the employees and administrators at Federally Qualified Health Centers across the nation, the incredibly helpful staff members at state and national level Community Health Associations, and the Health Resources and Services Administration team, especially Paul Wilson. I am so grateful for your participation in this study and for your assistance in gathering information about the complicated inner-workings of health centers. The work that you are doing to provide health care to the underserved and to
facilitate health care research is truly critical, especially during times of political upheaval.

I additionally want to express my eternal gratitude to my entire program cohort. Without you, this experience would have been much less meaningful and much less joyful. Furthermore, my mom and dad, an excellent writer and an excellent researcher, have served as invaluable mentors throughout the past four years and long before. I would not be here without you. Lastly, I am thankful for the patience and humor my husband has freely given me at every turn. From New Orleans to Colorado, you have been the best possible partner.
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CHAPTER I
INTRODUCTION
A Primer of the Study

The recent restructuring of the United States (U.S.) health care system under the historic Patient Protection and Affordable Care Act (ACA) has potentially significant, yet understudied, implications for the mental health profession. ACA provisions designed to improve health care access may shape the provision of mental health services and the employment of mental health professionals (Pearlman, 2013). Among the recent reforms enacted by the ACA reshaping the mental health industry are the mental health parity requirements for health insurance, the optional expansion of the Medicaid population by individual states, and the increased funding of Federally Qualified Health Centers (FQHCs or health centers).

It would appear that counselors as front-line mental health providers would benefit from the implementation of these reforms. The American Counseling Association has stated that the ACA’s new policies should overall advance the role of counselors and that it is important for all counselors to acquire a basic understanding of the legislation (Barstow, 2012). Yet despite these reforms designed to improve the delivery of mental health services, the counseling profession needs to be aware of certain obstacles inherent in federal and state law that may restrict employment opportunities and hinder professional advancement (Barstow, 2012). There exist certain gaps in federal and state law that may hamper the employment of counselors compared to other mental health
providers. In particular regards to FQHCs, for example, federal law explicitly approves licensed clinical social workers (LCSWs), in addition to psychologists and psychiatrists, to generate Medicaid Prospective Payment System (PPS) billable encounters but omits licensed professional counselors (LPCs; National Association of Community Health Centers [NACHC], 2015a, 2015b).

In the absence of federal law, the states vary on the issue of whether LPCs are approved as independent PPS billable providers at FQHCs; some states allow LPCs to generate PPS billable encounters at FQHCs and some states do not (NACHC, 2015a, 2015b). Thus, armed with knowledge of the impact of reforms initiated under the ACA, Medicaid reimbursement methodologies, and PPS billing provider status, the counseling profession is better equipped to advocate on behalf of counselors confronting the dynamic U.S. health care landscape.

The setting of FQHCs was the focus of this study for several reasons. FQHCs are federally-funded non-profit primary care clinics providing high quality outpatient care, including mental health services, to people in medically underserved communities. It is estimated that FQHCs serve 1 in 14 Americans (Rosenbaum, 2011). With the ACA’s increased funding of FQHCs, these health centers play a key role in improving access to health care, especially for the uninsured and underinsured. FQHCs serve as a bellwether for the impact of health care reform policies such as the implementation of integrated care, case management, enhanced reimbursement methodologies, and home visitation. There are currently approximately 1,375 health centers operating over 9,000 service sites providing over 60 million medical visits and 6 million mental health visits annually (U.S.
Department of Health & Human Services [HHS], Health Resources & Services Administration [HRSA], Bureau of Primary Health Care [BPHC], Health Center Program, 2015). Importantly, all FQHCs submit detailed annual reports to the Uniform Data System tracking such measures as patient demographics, utilization of services, types of health care professionals working at FQHCs, and quality outcomes. These data can be used by researchers to track the performance of FQHCs and identify and evaluate the effectiveness of strategies designed to improve health care access, quality and cost-containment.

This quasi-experimental study aimed to illuminate the impact of Medicaid expansion under the ACA and Medicaid reimbursement policies upon the provision of mental health services and the employment of mental health professionals at FQHCs, in particular LPCs and LCSWs. This study examined whether the implementation of Medicaid expansion by some states resulted in a significantly higher rate of change in the number of mental health visits and full-time equivalent (FTE) mental health staff at FQHCs from pre-Medicaid expansion (2012-2013) to post-Medicaid expansion (2014-2015), as compared to FQHCs in non-Medicaid expansion states. Furthermore, this investigation strove to determine whether state approval of LPCs as PPS billable providers is correlated with a significantly higher proportion of LPCs employed at FQHCs (of the total number of LPCs and LCSWs).

The results of this study provide insight into the effects of the health care reforms implemented by the ACA and provider reimbursement policies; this research could be utilized to advocate to policymakers and other stakeholders at the state and federal levels.
in favor of more beneficial billing and reimbursement practices for counselors providing mental health services at FQHCs. The implications of this study are especially important given the challenge of mental health workforce shortages faced by FQHCs nationwide (NACHC, 2016b). Even given the uncertain future the ACA faces in the wake of the election of President Donald Trump, it is important for counselors, counselor educators, and advocates in the field of counseling to understand the law’s legacy upon the mental health profession.

**Affordable Care Act: Landmark Health Care Reform**

Signed into law by President Barack Obama on March 23, 2010, the Patient Protection and Affordable Care Act is considered a “watershed in U.S. public health policy” and represents the most significant reorganization of the U.S. health care system since the creation of Medicare and Medicaid in 1965 (Rosenbaum, 2011, p. 130). The primary goal of the ACA is to ensure “near-universal” health insurance coverage through shared responsibility among government, employers, and individuals (Rosenbaum, 2011, p. 130). The law imposes a controversial provision, known as the “individual mandate,” requiring most Americans to obtain health insurance coverage or pay a penalty for noncompliance (Centers for Medicare & Medicaid Services, n.d.-a; Patient Protection and Affordable Care Act, 2010, 26 U.S.C. § 5000A). Health insurance companies, for their part, must offer policies in the marketplace on a “guaranteed issue basis” (i.e., regardless of applicant’s pre-existing conditions or health status; The Henry J. Kaiser Family Foundation, 2014, p. 1).
For low and moderate-income individuals and families, particularly those who are not offered health insurance by employers, the ACA establishes certain provisions to encourage expanded insurance coverage and access including: (a) financial subsidies (e.g., tax credits) to those not otherwise eligible for coverage through Medicare or Medicaid, thereby reducing monthly premiums and out-of-pocket costs (Patient Protection and Affordable Care Act, 2010, 26 U.S.C. § 36B); (b) expansion of Medicaid by states to cover adults with incomes effectively under 138% of the Federal Poverty Level (Patient Protection and Affordable Care Act, 2010, 42 U.S.C. § 1396a; HHS, 2015b); and (c) increased funding for FQHCs that provide comprehensive primary care, mental health, and dental care, regardless of health insurance status (Patient Protection and Affordable Care Act, 2010, 42 U.S.C. § 254b).

**Affordable Care Act and Mental Health Parity**

In addition to expanding health insurance coverage, eliminating pre-existing conditions, and introducing mandates, subsidies, and insurance exchanges, the ACA also provides one of the largest expansions of mental health and substance use disorder coverage, building upon the Mental Health Parity and Addiction Equity Act of 2008 (Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008, 2008; Pearlman, 2013). The earlier Mental Health Parity and Addiction Equity Act of 2008 required that in large group health plans (i.e., including 51 or more employees), there be a general equivalence (commonly known as mental health parity) between the treatment of mental health and substance use disorder benefits and medical/surgical benefits (e.g., treatment limitations, deductibles, co-pays, and out-of-network benefits;
This mental health parity requirement, however, did not apply directly to insurance plans provided by small employers (50 or fewer employees) or to individual plans prior to the ACA (Substance Abuse and Mental Health Services Administration, 2016).

The ACA builds upon the Mental Health Parity and Addiction Equity Act of 2008 by requiring that non-grandfathered health insurance coverage in the individual and small group markets offer mental health and substance use disorder services as one of the 10 broad categories of service known as the 10 Essential Health Benefits (Flaskerud, 2014; Patient Protection and Affordable Care Act, 2010, 42 U.S.C. § 18022b; Patient Protection and Affordable Care Act, 2013). Consequently, with few exceptions, starting in 2014, new individual and group employer health insurance plans (small and large) in all states must offer coverage for mental health and substance abuse disorders comparable to coverage for general medical and surgical care (Final Rules, 2013). Moreover, in regards to public health programs, the ACA extends the application of mental health parity requirements to Medicaid (Patient Protection and Affordable Care Act, 2010, 42 U.S.C. § 1396u-7; Medicaid and Children’s Health Insurance Programs, 2016).

**Affordable Care Act and Medicaid Expansion**

One of the ACA’s key strategies for increasing access to health care involves the expansion of Medicaid, a jointly funded federal/state health care program for low-income families and individuals (Centers for Medicare & Medicaid Services, n.d.-a; Centers for Medicare & Medicaid Services, n.d.-b). Beginning in 2014, the ACA expands Medicaid eligibility to adults up to 138% of the Federal Poverty Level (HHS, 2015a). In 2014, the
Federal Poverty Level amounted to $11,670 for an individual’s annual salary and $23,850 for a family of four (HHS, 2015a). In non-Medicaid expansions states, adults who are not parents of dependent children remain ineligible for any Medicaid coverage (The Henry J. Kaiser Family Foundation, 2017).

Although the original intention of lawmakers approving the ACA was for all states to expand Medicaid, the Supreme Court has held in a landmark decision that Medicaid expansion is optional for states (National Federation of Independent Business v. Sebelius, 2012). For those states that choose to expand their Medicaid programs, the federal government commits to pay 100% of Medicaid costs of those newly eligible beneficiaries from 2014 to 2016 (Paradise, 2015). The federal share gradually reduces down to 90% in 2020 and remains at that level for years following (Paradise, 2015). There is no deadline in the ACA for states to adopt Medicaid expansion; however, the federal match rates are linked to specific years (Paradise, 2015). As of October 2016, 19 states have elected not to expand Medicaid (The Henry J. Kaiser Family Foundation, 2016). State governors rejecting the Medicaid expansion assert that even with the federal match rate, their states would be left with unsustainable health care costs in the future (Badger, 2013; Goodnough, 2013). For most of the 32 states, including the District of Columbia (D.C.), opting to expand Medicaid, the expansion took effect on January 1, 2014 (The Henry J. Kaiser Family Foundation, 2016). In Medicaid expansion states, efforts to enroll eligible beneficiaries have been largely successful; approximately 13 million more Americans were enrolled in Medicaid/Children’s Health Insurance Programs in April 2016 as compared to enrollment in July/September 2013 (50,757,088...
enrollees in April 2016 compared to 37,249,111 enrollees in July/September 2013; Centers for Medicare & Medicaid Services, 2016).

For those states electing to expand Medicaid, the ACA requires that the Medicaid expansion population be covered through an approved Medicaid Alternative Benefit Plan (Mahan & Traver, 2013; Medicaid and Children’s Health Insurance Programs, 2013; Patient Protection and Affordable Care Act, 2010, 42 U.S.C. § 1396u-7). Within broad federal requirements, states have the flexibility to develop their own Medicaid Alternative Benefit Plans, but the Plans must be submitted to the Centers for Medicare and Medicaid Services for approval (Mahan & Traver, 2013; Medicaid and Children’s Health Insurance Programs, 2013). As previously mentioned, the ACA and subsequent rulings from the Centers for Medicare and Medicaid Services clarify that the application of the mental health parity requirements extend to Medicaid (Mann, 2013; Final Rules, 2013; Medicaid and Children's Health Insurance Programs, 2016). Applying the mental health parity requirements to both marketplace plans and Medicaid plans helps to prevent inequity related to the provision of mental health services. It should be acknowledged, however, that Medicaid reimbursement is usually lower than other payers (e.g., 61% of Medicare), especially commercial insurance, and some providers do not accept Medicaid patients (Ubel, 2013). Despite these disparities, Medicaid expansion has offered many previously uninsured individuals the opportunity to access health care services other than emergency room care. In regards to mental health issues among this population, it has been estimated that approximately 10.9 million uninsured adults aged 18 to 64 have a behavioral health disorder, and of these, 5.3 million (48.3%) are
individuals with incomes below 138% of the Federal Poverty Level and potentially eligible for Medicaid expansion (Ali, Mutter, & Teich, 2015; Substance Abuse and Mental Health Services Administration, 2014).

**Affordable Care Act and Federally Qualified Health Centers**

Along with Medicaid expansion, another important component of the ACA’s strategy for increasing access to health care is the expanded role of FQHCs. The ACA provided an additional $11 billion in funding for FQHCs from 2010 to 2015 (BPHC, n.d.). FQHCs are often on the forefront of health policy reform and serve as a testing ground for interventions designed to improve quality of care and lowering costs (Lefkowitz, 2007). Because of the detailed annual reporting requirements imposed upon FQHCs, policymakers can use the data generated by FQHCs to track health care delivery trends, patient outcomes, and staffing needs (NACHC, 2014b). This study relied significantly upon the annual data reports submitted by FQHCs to determine the relationship between Medicaid expansion and the utilization of mental health services and the employment of mental health professionals.

**Background of Federally Qualified Health Centers**

The roots of FQHCs began in the 1960s as non-profit neighborhood health centers providing primary health care to medically underserved Americans living in inner-city neighborhoods and rural areas (Lefkowitz, 2007). In 1989 Congress established the *Federally Qualified Health Center* umbrella program encompassing several types of non-profit federally-funded, community-based health centers: (a) community health centers;
(b) migrant health centers; (c) health care for the homeless programs; and, (c) public housing primary care programs (42 U.S.C. § 254b; 42 U.S.C. § 1395x(aa)(4)). Oversight of FQHCs is provided by the Bureau of Primary Health Care (BPHC) within the Health Resources and Services Administration (HRSA) under the U.S. Department of Health & Human Services (HHS). According to federal regulations, FQHCs must be located in medically underserved areas or serve medically underserved populations; provide comprehensive primary care services; adjust charges for health services based on the patient’s ability to pay; demonstrate sound clinical and financial management; and, be governed by a board of directors, including health center patients (HRSA, n.d.; HRSA, 2015).

**Affordable Care Act’s Funding of Federally Qualified Health Centers**

The ACA’s expansion of health insurance coverage was expected to increase utilization of all health services, including mental health services, and FQHCs were acknowledged in the legislation as a vital solution for meeting this resulting increased demand (Shin, Sharac, Barber, Rosenbaum, & Paradise, 2015). Accordingly, the ACA provided an additional $11 billion in dedicated funding over five years (2010 to 2015) to support FQHCs (BPHC, n.d.). This substantial funding approved by Congress clearly demonstrates the essential role of FQHCs in the implementation of the ACA.

The increased funding of FQHCs has transformed this health care delivery model. FQHCs are now on the forefront of integrated primary care that includes both medical and mental health services. Instead of FQHCs being perceived as “providers of last
resort,” it can be contended that FQHCs are becoming “providers of choice” for many patients (Pourat & Hadler, 2014, p. 1-2). Furthermore, the White House Office of Management and Budget rated FQHCs as one of the most effective federal programs, generating over $24 billion in health care savings annually (Hennessy, 2013). Numerous studies have shown that FQHCs lower the utilization of emergency rooms, the number of costly hospital admissions and specialty referrals, and improve health care outcomes (Hennessy, 2013). It is anticipated that the expansion of FQHCs under the ACA will save up to $122 billion in total health care costs between 2010 and 2015 (NACHC, 2010a). As summarized by Hennessy (2013), FQHCs have transformed “from being fringe providers to anchors of many local health systems” (p. 125).

**Important Role of Federally Qualified Health Centers in Mental Health Service Delivery**

Currently, there is limited empirical research examining the impact of Medicaid expansion upon the provision of mental health services at FQHCs, but the general consensus is that overall, the ACA policy changes are predicted to increase the demand for mental health services at FQHCs, especially now that mental health parity requirements have been extended to Medicaid plans (Han et al., 2015; Jones, Zur, Rosenbaum, & Ku, 2015; Sommers, Gunja, Finegold, & Musco, 2015). The implementation of Medicaid expansion has certainly resulted in many more newly insured individuals in those 32 states electing the expansion, but whether FQHCs have been able to increase service capacity (i.e., increased utilization of mental health visits) needs to be examined. Furthermore, whether any increase in mental health visits at
FQHCs is reflected in the increased employment of mental health professionals post-
Medicaid expansion remains to be tested. Thus, this study focused on the impact of
Medicaid expansion on the rate of change in the number of mental health visits and the
number of FTE mental health staff employed at FQHCs pre-Medicaid expansion (2012-
2013) and post-Medicaid expansion (2014-2015), comparing two groups: (a) Medicaid expansion states; and, (b) non-Medicaid expansion states.

**Medicaid Reimbursement Methodologies at Federally Qualified Health Centers**

As expected, FQHCs are significantly impacted by Medicaid reimbursement policies. In 2015, almost half of all clients (48.9%) receiving services at FQHCs were covered by Medicaid (HHS, HRSA, BPHC, Health Center Program, 2015). Moreover, Medicaid funding accounts for the largest source of revenue for FQHCs nationwide (The Henry J. Kaiser Family Foundation, 2013; HHS, HRSA, BPHC, Health Center Program, 2014). Unfortunately a substantial portion of FQHC clients remain uninsured despite the ACA (24.4% in 2015).

Because FQHCs function as critical safety net providers in the U.S. health care landscape, Congress has attempted to protect their financial stability. As a policy matter, federal law mandates that FQHCs receive enhanced reimbursement for services provided to Medicaid clients, specifically through the use of the Medicaid Prospective Payment System (PPS). In earlier times, federally-funded health centers received traditional cost-based reimbursement with few incentives to curb costs (NACHC, 2014a). Under PPS, as established by Congress in 2000 to encourage cost containment, FQHCs are reimbursed
by Medicaid based on a fixed payment per visit using the average cost per visit over the 1999-2000 period as a base and adjusting thereafter using the Medicare Economic Index for inflation (42 U.S.C. § 1396a(bb)(1)). States may choose to implement an alternative payment methodology, including reasonable cost reimbursement, as long as the payment is not less than under the PPS methodology (Federally Qualified Health Centers, 2016, § 8.700.6.C.3).

The end result of the PPS reimbursement policy change is that “Medicaid pay[s] FQHCs their PPS rate for each face-to-face encounter between a Medicaid beneficiary and a billable provider for a medically necessary and covered service” (NACHC, 2015a, p. 3). Because the PPS rate is significantly elevated (i.e., as compared to traditional Medicaid reimbursement, for example), the PPS allows FQHCs to remain “financially viable” by recouping some “overhead and additional costs” and ensuring that grant funding intended for the uninsured is used for the uninsured and not used to “subsidize inadequate Medicaid reimbursement” (Van Coverden, n.d., p. 1-2). Furthermore, the enhanced PPS reimbursement incentivizes FQHCs to accept more Medicaid patients, an important consideration when many health care providers limit or do not accept Medicaid patients. Medicaid is historically the lowest payer among health insurance plans, although certain recent fee increases under the ACA have put some Medicaid fees on par with Medicare (Renter, 2015).
Billable Mental Health Providers
Under the Medicaid Prospective Payment System

Because Medicaid is a joint-funded state and federal program, individual states have a degree of discretion in the program’s important administration decisions as they relate to FQHCs (Centers for Medicare & Medicaid Services, n.d.-a; Centers for Medicare & Medicaid Services, n.d.-b). Overarching federal law (e.g., § 1902(bb) of the Social Security Act; 42 U.S.C. § 1396d(l)(2)(A); 42 U.S.C. § 1395x(aa)(3)(A); 42 C.F.R. § 405.2450) establishes a list of providers who can generate PPS encounters at FQHCs and thus, FQHCs receive the favorable PPS reimbursement rate (Federally Qualified Health Centers, 2016). For mental health services, the billable providers approved by federal law are psychiatrists, psychologists, and LCSWs (NACHC, 2015a). Since not addressed by federal law, each individual state can determine whether LPCs are also permitted to generate PPS encounters for mental health services at FQHCs within the state. Unfortunately for the counseling profession, the majority of states have not included LPCs for PPS reimbursement at FQHCs. There is insufficient literature related to the reasons for the states’ decisions, but it can be assumed that historic factors related to strong advocacy by the social work profession and the more recent advent of the counseling profession play a significant role.

Although this omission presumably impacts the employability of LPCs at FQHCs because FQHC reimbursement from Medicaid is based on the number of generated PPS encounters, there is limited empirical evidence regarding this issue. One nationwide survey of FQHCs prior to Medicaid expansion by the NACHC found that licensed social
workers comprised 31% of mental health staff as compared to 10.1% for LPCs and 2.6% for licensed marriage and family therapists (Lardiere, Jones, & Perez, 2011). Although this pre-Medicaid expansion survey indicates that the prevalence of social workers at FQHCs is three times greater than counselors, the study is limited because it does not distinguish between FQHCs located in states approving LPCs as billable FQHC mental health providers under PPS and states not approving LPCs as billable FQHC mental health providers under PPS.

The implementation of the ACA’s health reforms related to Medicaid expansion, increased funding of FQHCs, and expansion of mental health benefits should result in substantial increases in the utilization of mental health services and consequently provide better employment opportunities for mental health professionals, including counselors, at FQHCs. Yet counselors may not experience equivalent professional employment opportunities because of certain reimbursement protocols that determine which providers can generate billable encounters at FQHCs. State non-approval of LPCs as billable PPS providers may result in more favorable job prospects for LCSWs at FQHCs compared to LPCs despite both being master’s-level clinicians with the ability to practice independently and address the mental health needs of clients. At this time, there are no published studies regarding the relationship between the state’s determination of billable FQHC mental health providers under PPS and the distribution of mental health professionals at FQHCs. Counseling advocacy efforts may be strengthened from research demonstrating the influence of PPS reimbursement policies upon the hiring of different types of mental health providers at FQHCs (Weissman et al., 2006). This
research is particularly relevant because it can be assumed that state policymakers are making their decisions based on the strength of professional advocacy efforts, especially since literature demonstrating that LCSWs achieve better mental health outcomes than LPCs does not exist.

The Uniform Data System

Further research examining the causal impact of Medicaid expansion on the utilization of mental health services and the employment of mental health professionals at FQHCs could provide important information to health care policymakers. In large part, this study was supported by the Uniform Data System, the annual data reporting mechanism for FQHCs. Each year, FQHCs are required to report a core set of information, including data on patient demographics, services provided, utilization rates, costs, revenues, employment of various health professionals, and other health care quality indicators (BPHC, 2014). The Uniform Data System is managed by the U.S. Department of Health & Human Services (HHS), Health Resources & Services Administration (HRSA), Bureau of Primary Health Care (BPHC), Health Center Program, and much of the data are publicly available to researchers to explore such issues as access to health care and quality of health care for low-income populations, health care administration and policies affecting FQHCs, and preventative health efforts in the U.S. (Lefkowitz, 2007). The annual Uniform Data System reports provide timely information that can be used to identify new opportunities for improvement in health care delivery because the data allows tracking of such trends as utilization demand changes and workforce capacity, including employment patterns of health care providers (BPHC, 2014).
Statement of the Problem

The success of the health care reforms enacted by the ACA depends in part on the success of FQHCs in meeting primary health care demand, including the demand for mental health services. As previously explained, the ACA allows for the expansion of the Medicaid population at the discretion of each state; requires that mental health parity apply to most health care plans, including Medicaid; and, increases funding for FQHCs. Therefore, given the large percentage of Medicaid clients receiving health care at FQHCs, all FQHCs should experience increased utilization of mental health services and employment of mental health professionals. Furthermore, comparing Medicaid expansion states and non-Medicaid expansion states, for the relevant time periods of 2012-2013 (pre-Medicaid expansion) and 2014-2015 (post-Medicaid expansion), it can be posited that FQHCs in Medicaid expansion states will experience significantly higher rates of change in the number of mental health visits and FTE mental health staff, as compared to FQHCs in non-Medicaid expansion states (Han et al., 2015; Jones et al., 2015; Sommers et al., 2015).

Yet there is no prior research employing advanced analytic strategies that evaluates changes in the utilization of mental health services and the employment of mental health staff at FQHCs within the context of Medicaid expansion states compared to non-Medicaid expansion states using 2012-2013 data and 2014-2015 data (Jones et al., 2015). Moreover, an analysis of the trends related to Medicaid expansion and FQHC mental health service utilization and employment may not show significant growth for such reasons as: (a) FQHCs are not able to meet the increased demand because of
workforce professional shortages and financial constraints; (b) the newly Medicaid insured are able to access mental health services from providers other than FQHCs (although such providers will not receive the enhanced PPS reimbursement); (c) demand for mental health services may decline as the newly insured in Medicaid expansion states are more satisfied with their economic status and access to health care; and, (d) the growing numbers of uninsured in non-Medicaid expansion states may rely heavily on FQHCs for their health care, including mental health services, since FQHCs are required by law to treat the uninsured, and therefore, FQHCs in non-Medicaid states may experience higher growth in mental health service utilization and employment (see literature reviewed in Chapter II).

Lastly, there are no previously published studies examining the relationship between the inclusion of LPCs as billable FQHC mental health providers under PPS and the distribution of mental health professionals at FQHCs. Medicaid PPS reimbursement methodologies likely affect the employment of LPCs and LCSWs at FQHCs, but there is a proportionate distribution of these types of mental health professionals remains unknown (NACHC, 2015a, 2015b). Although studies have illustrated that LPCs make up a large percentage of mental health staff in FQHCs, there have been no studies that assess current counselor versus social worker employment in FQHCs in the context of state determinations of which mental health providers are eligible billable providers under PPS (Lardiere et al., 2011).
**Purpose of the Study**

The first purpose of the study was to test the causal impact of Medicaid expansion on the number of mental health visits per state provided by FQHCs. Aggregate state-level Uniform Data System data were analyzed from 2012-2013 (pre-Medicaid expansion) and 2014-2015 (post-Medicaid expansion), comparing the rate of change in Medicaid expansion states and non-Medicaid expansion states. The second purpose of the study was to test the causal impact of Medicaid expansion on the number of FTE mental health staff employed at FQHCs. Again, aggregate state-level Uniform Data System data were analyzed from 2012-2013 (pre-Medicaid expansion) and 2014-2015 (post-Medicaid expansion), comparing the rate of change in Medicaid expansion states and non-Medicaid expansion states. The final purpose of this study involved exploring the relationship between the inclusion of LPCs as billable providers under PPS and the proportion of LPCs employed at FQHCs. To achieve this purpose, FQHC employment data were collected from a survey developed by this researcher documenting the proportion of LPCs at FQHCs in randomly selected states.

The causal evaluations (first and second purposes of the current study) were achieved by implementing a count model difference-in-differences analysis strategy. A difference-in-differences analysis is frequently utilized in quasi-experimental studies in which a policy change such as Medicaid expansion creates a treatment group (states expanding Medicaid) and a control group (states not expanding Medicaid; Heppner, Wampold, & Kivlghan, 2008; Murnane & Willett, 2011). This difference-in-differences analysis calculated the effect of Medicaid expansion on the number of FQHC mental
health visits and the number of FTE mental health staff by comparing the average change in these mental health outcome variables for states expanding Medicaid to the average change in these mental health outcome variables for states not expanding Medicaid.

To address the final purpose of this study, comparisons were made between two groups of states: (a) states approving LPCs as billable FQHC mental health providers under PPS; and, (b) states not approving LPCs as billable FQHC mental health providers under PPS (NACHC, 2015a, 2015b; The Henry J. Kaiser Family Foundation, 2016). Only Medicaid expansion states were included in the sample in an effort to limit confounding variables. In order to determine if LPCs were being employed at FQHCs equitably to LCSWs, a researcher-developed survey was mailed to FQHCs providing mental health services in 13 randomly selected states (4 states approving both LPCs and LCSWs as PPS billable providers; 9 states approving only LCSWs, not LPCs, as PPS billable providers). Then, a two-sample test of proportions was utilized to compare LPC and LCSW employment in the two groups of states.

In summary, the results of this study provided insight into the impact of Medicaid expansion on mental health service delivery and employment at FQHCs in the U.S. In addition, this study provided a more detailed understanding of the relationship between the inclusion of LPCs as billable providers under PPS and the employment of various mental health professionals at FQHCs.

**Research Questions and Hypotheses**

The following research questions were designed to fulfill the three purposes of this study. Research Question One targeted whether Medicaid expansion impacted the
rate of change in mental health visits at FQHCs, comparing Medicaid expansion states and non-Medicaid expansion states for the relevant time periods of 2012-2013 (pre-Medicaid expansion) and 2014-2015 (post-Medicaid expansion). Research Question Two focused on whether Medicaid expansion impacted the rate of change in the number of FTE mental health staff at FQHCs, comparing Medicaid expansion states and non-Medicaid expansion states for the relevant time periods of 2012-2013 (pre-Medicaid expansion) and 2014-2015 (post-Medicaid expansion). Research Question Three examined the proportion of LPCs employed at FQHCs in four states that allow LPCs and LCSWs to generate PPS encounters (Illinois, Ohio, Oregon, and Washington) versus the proportion in nine states that allow only LCSWs, but not LPCs, to generate PPS encounters (Arkansas, Hawaii, Minnesota, Nevada, New Hampshire, New Jersey, New York, Vermont, and West Virginia). The target population for Research Questions One and Two is comprised of states that have expanded Medicaid, in addition to states expanding Medicaid in the future (Hutchinson, 2014). For Research Question Three, the target population consists of states currently approving LPCs as billable providers under PPS, in addition to states approving LPCs in the future (Hutchinson, 2014).

Q1 Is the rate of change in the number of FQHC mental health visits significantly different for the group of states that expanded Medicaid versus the group of states that did not expand Medicaid?

H1 Medicaid expansion states are expected to experience a significantly higher rate of change in the number of FQHC mental health visits as compared to non-Medicaid expansion states.

Q2 Is the rate of change in the number of FQHC FTE mental health staff significantly different for the group of states that expanded Medicaid versus the group of states that did not expand Medicaid?
H2 Medicaid expansion states are expected to experience a significantly higher rate of change in the total number of FQHC FTE mental health staff as compared to non-Medicaid expansion states.

Q3 Are proportionally more LPCs employed at FQHCs in states approving LPCs as billable FQHC mental health providers under PPS as compared to states not approving LPCs?

H3 States approving LPCs as billable FQHC mental health providers under PPS are expected to employ a significantly higher proportion of LPCs at FQHCs as compared to states not approving LPCs (medium effect size).

**Significance of the Study**

This study tested the causal impact of Medicaid expansion, a key provision of the ACA, on the utilization of mental health services and the employment of mental health professionals at FQHCs in the U.S. FQHCs provide high quality, affordable medical and mental health services to more than 24 million people annually and can serve as a testing ground for innovative health care reforms (Lefkowitz, 2007; HHS, HRSA, BPHC, Health Center Program, 2015). It should be emphasized that even if the ACA is repealed and replaced, there remains substantial support for Medicaid expansion, and even Republican state governors have been lobbying for its survival (Pradhan, 2017).

This study also examined the relationship between the status of the mental health provider as eligible or not eligible to generate PPS reimbursement and mental health staffing at FQHCs. Specifically, this study explored the correlation between state policy approving LPCs as billable FQHC mental health providers under PPS and the proportion of LPCs employed at FQHCs.

An additional benefit of this study was insight into the level of counselor employment compared to social worker employment at FQHCs, the majority of which
now offer integrated medical and mental health care within the patient-centered medical home model (NACHC, 2014c). Finally, although Congress will likely develop new FQHC reimbursement methodologies to supplant the PPS model in the future, especially as health outcome measurements become more feasible to implement, this study provided support for future reform policies addressing the inclusion of counselors as billable providers of mental health services regardless of the reimbursement scheme and regardless of whether the insurance is funded by the government or private pay (Center for Connected Health Policy, 2015).

Lastly, it is well documented that FQHCs face mental health workforce shortages, and the results of this study could be useful in changing Medicaid reimbursement policies towards addressing these shortages. The NACHC has published extensively on this issue and has found that 56% of health centers report experiencing at least one behavioral health vacancy (NACHC, 2016b). To increase primary care capacity, recommended state-level strategies include expanding scope of practice laws and reimbursement options for FQHC providers. This study could add to growing evidence of the benefit of these proposed changes.

In summary, the results of this study can inform counselors’ professional advocacy efforts moving forward, especially related to work within FQHCs and different integrated care settings where Medicaid and other reimbursement methodologies could affect counselor employability. This information could be most useful for advocates of the counseling profession at the state and national levels, including the American Counseling Association’s government affairs staff. Evidence demonstrating that the
inclusion of LPCs as PPS billable providers is correlated with increased employment
opportunities for LPCs at FQHCs could be presented by these advocates to policymakers.
More importantly, this study could provide evidence supporting a new federal policy for
the nationwide inclusion of LPCs as billable FQHC mental health providers under PPS or
any reimbursement methodology in the Medicaid program, thus advancing the counseling
profession. The results of this study may advance the counseling profession by providing
empirical research supporting the increased role of counselors in the dynamic health care
landscape (Myers et al., 2002).

Definitions of Key Terms

Bureau of Primary Health Care (BPHC): The Bureau of Primary Health Care is part of
the Health Resources & Services Administration (HRSA) of the U.S. Department
of Health & Human Services. The Bureau of Primary Health Care manages the
nation’s health center network and administers the Health Center Program as
authorized by Section 330 of the Public Health Service Act (42 U.S.C. § 254b).
See also definition of “Federally Qualified Health Centers.”

Children’s Health Insurance Program: According to its program history summarized at
Medicaid.gov, the Children’s Health Insurance Program, signed into law in 1996,
provides federal matching funds to states to provide health coverage to children in
families with incomes too high to qualify for Medicaid but who cannot afford
private coverage. All states have expanded children’s coverage significantly
through their Children’s Health Insurance Programs, with nearly every state
providing coverage for children up to at least 200% of the Federal Poverty Level.
In this study, Children’s Health Insurance Program participants are included in the outcome data.

**Client:** In this study, the term “client” is used interchangeably with the term “patient” due to the quantity of medical literature referenced.

**Counselor:** For the purposes of this study, the use of the term “counselor” refers to “licensed professional counselor” or counselor earning hours towards licenseure (see definition of “licensed professional counselor”).

**Federally Qualified Health Center (FQHC):** According to the U.S. Department of Health & Human Services, Health Resources & Services Administration: “Federally Qualified Health Centers (FQHCs) include all organizations receiving grants under Section 330 of the Public Health Service Act (PHS). FQHCs qualify for enhanced reimbursement from Medicare and Medicaid [see definition of “Prospective Payment System”], as well as other benefits. FQHCs must serve an underserved area or population, offer a sliding fee scale, provide comprehensive services (either on-site or by arrangement with another provider), have an ongoing quality assurance program, and have a [consumer-majority] governing board of directors.” The Centers for Medicare and Medicaid Services (CMS) considers each permanent and seasonal site operated by a Health Center Program grantee to be a separate FQHC; thus, a single Health Center Program grantee may consist of multiple FQHCs because of multiple service delivery sites.

**Full-time equivalent (FTE):** The 2015 Uniform Data System manual defines FTE as follows: “A full-time equivalent (FTE) of 1.0 describes staff who individually or
as a group worked the equivalent of full-time for one year. Each agency defines the number of hours for ‘full-time’ work and may define it differently for different positions…Interns, residents, and volunteers are counted consistent with their time with the grantee and their licensing” (p. 13).

**Health center:** In this study, the term “health center” is used interchangeably with “Federally Qualified Health Center.” As defined by HRSA, according to Section 330(a) of the Public Health Service Act, a health center is “an entity that serves a population that is a medically underserved area, or a special medically underserved population comprised of migratory and seasonal agricultural workers, the homeless, and residents of public housing by providing either directly through the staff and supporting resources of the center or through contracts or cooperative agreements required primary health services (as defined in section 330(b)(1)) and, as may be appropriate for particular centers, additional health services (as defined in section 330(b)(2)) necessary for the adequate support of the primary health services . . .; for all residents of the area service by the center.” In other literature, the term “health center” is a generic term for community-based health centers that does not indicate the specific program type (National Cooperative Agreement, n.d.).

**Health Resources & Services Administration (HRSA):** According to its website, “The Health Resources [&] Services Administration (HRSA), an agency of the U.S. Department of Health [&] Human Services, is the primary Federal agency for improving health and achieving health equity through access to quality services, a
skilled health workforce and innovative programs. HRSA’s programs provide health care to people who are geographically isolated, economically or medically vulnerable.”

**Licensed clinical social worker (LCSW):** The Uniform Data System requires FQHCs to annually report the number of FTEs for this specific type of mental health provider (LCSWs). Across different states, LCSWs are known as “registered clinical social workers,” “licensed certified social workers,” and “licensed independent social workers.” In this study, the term LCSW encompasses all master’s-level social workers who have completed the state-specified number of supervised hours of post-degree practice (usually 3,000 hours over at least two years), in addition to fulfilling the other state-mandated requirements for the licensure. In addition, for this study, this term includes social work interns earning hours towards licensure because they work under the licensure of social worker supervisors within FQHCs.

**Licensed professional counselor (LPC):** For the purposes of this study, this term encompasses all of the following possible terms for licensed counselors utilized in different states, including but not limited to, “professional clinical counselor,” “licensed professional counselor,” “licensed clinical professional counselor,” and “licensed mental health counselor.” In addition, for this study, this term includes counselors earning hours towards licensure and counselor interns because they work under the licensure of counselor supervisors within FQHCs.
**Mental health services:** In this study, “mental health services” is synonymous with “behavioral health services.”

**Other licensed mental health providers:** As defined in the Uniform Data System manuals, this term includes “psychiatric social workers, psychiatric nurse practitioners, family therapists, and other licensed Masters Degree prepared clinicians” (e.g., licensed professional counselors).

**Patient Protection and Affordable Care Act (ACA):** The Patient Protection and Affordable Care Act (H.R. 3590) was passed by Congress and then signed into law by President Barak Obama on March 23, 2010. On June 28, 2012, the Supreme Court rendered a decision to uphold key provisions of the ACA. This bill enacted substantial changes to health care policy in the U.S. described in Chapter II of this study.

**Proportion of Counselors/LPCs:** In this study, the “proportion of counselors” refers to the proportion of counselors of the total population of counselors and social workers. This is equal to the number of counselors divided by the number of counselors plus social workers.

**Prospective Payment System (PPS):** Under the PPS, as established by Congress in 2000, FQHCs are reimbursed by Medicaid based on a fixed payment per visit using the average cost per visit over the 1999-2000 period as a base and adjusting thereafter using the Medicare Economic Index for inflation (42 U.S.C. § 1396a(bb)(1)). In this study, “Prospective Payment System” is synonymous with “Medicaid Prospective Payment System.”
**Uniform Data System:** According to the Bureau of Primary Health Care,

“[t]he Uniform Data System is a standardized reporting system that provides consistent information about health centers.” As explained by the Health Resources & Services Administration, the Uniform Data System “is a reporting requirement for section 330 funded health centers. It is the core set of information appropriate for monitoring and evaluating health center performance reporting on trends. UDS collects basic demographic information on populations served, such as race/ethnicity and insurance status of patients. The data helps to identify trends over time, enabling HRSA to establish or expand targeted programs and identify effective services and interventions to improve access to primary health care for vulnerable populations. UDS data are also compared with national data to look at differences between the U.S. population at large and those individuals and families who rely on the health care safety net for primary care.”

All FQHCs must submit annual Uniform Data System reports.

**U.S. Department of Health & Human Services (HHS):** According to its website, “[t]he U.S. Department of Health [&] Human Services (HHS) is the nation’s principal agency for protecting the health of all Americans and providing essential human services.”

**Organization of the Study**

This study is presented in five chapters. In Chapter I, the literature pertaining to the ACA, Medicaid expansion, the Mental Health Parity and Addiction Equity Act of 2008, FQHCs, and relevant Medicaid policy (e.g., the Medicaid Prospective Payment
System) is introduced. Additionally, the statement of the problem, purpose of the study, significance of the study, research questions, and construct definitions are provided.

Chapter II presents a more thorough literature review pertaining to Medicaid reimbursement methodologies at FQHCs, LPCs and LCSWs as billable FQHC mental health providers under PPS, the historical professional issues of counselors and social workers, and mental health workforce shortages at FQHCs, in addition to summarizing other literature related to key constructs and a rationale for the hypothesized outcomes.

In Chapter III, the methodology for this study is rigorously described, including description of the data source, the participating health centers, procedures, research questions and hypotheses, and analytic strategies accompanying the research questions.

In Chapter IV, the results of the full study are presented. In Chapter V, the results and implications are discussed.
CHAPTER II

LITERATURE REVIEW

Affordable Care Act: Landmark Health Reform

The competitive challenges faced by the counseling profession are substantial as the various mental health providers often vie with each other for the same clients, reimbursement dollars, and academic recognition. Accordingly, it is imperative for the counseling profession to understand the legislative and regulatory framework shaping the massive health care industry (17.5% of gross domestic product; Centers for Medicare & Medicaid Services, 2015). A linchpin of this industry is currently the Patient Protection and Affordable Care Act (ACA), passed by Congress in 2010. Although the Republican Congress has vowed to repeal President Obama’s signature health law in 2017, it is expected that many of the key provisions of the ACA will be kept in any new health care legislation. President Trump, for example, has specifically said he would like to keep certain reforms enacted by the ACA, including provisions regarding pre-existing conditions and extended coverage for adult children of policy holders (Chinni, 2016). Some Republican governors are urging Congress to keep Medicaid expansion (Pradhan, 2016). Therefore, even if the ACA is repealed and replaced in 2017, it is essential for the counseling profession to understand the health care reforms enacted by the historic legislation because many of those reforms will likely continue in any GOP-backed health care system.
Historically the ACA is considered the most significant restructuring of the U.S. health care system since the creation of Medicare and Medicaid in 1965 (Patient Protection and Affordable Care Act, 2010; Rosenbaum, 2011). The central purpose of the ACA is to achieve “near-universal” health insurance coverage through shared responsibility among government, employers, and individuals (Rosenbaum, 2011, p. 130). To achieve this lofty purpose, the ACA establishes provisions to encourage expanded insurance coverage and access, especially for those not offered health insurance benefits at work. These provisions include: (a) financial subsidies (e.g., tax credits) to those not otherwise eligible for coverage through Medicare or Medicaid, thereby reducing monthly premiums and out-of-pocket costs (Patient Protection and Affordable Care Act, 2010, 26 U.S.C. § 36B); (b) expansion of Medicaid by states to cover adults with incomes effectively under 138% of the Federal Poverty Level (Patient Protection and Affordable Care Act, 2010, 42 U.S.C. § 1396a; HHS, 2015b); and (c) increased funding for FQHCs that provide comprehensive primary care, behavioral health, and dental care regardless of health insurance status (Patient Protection and Affordable Care Act, 2010, 42 U.S.C. § 254b).

Current research indicates that while the ACA has failed to achieve universal health insurance coverage, progress has been made to increase the percentage of Americans who are insured (Cohen, Martinez, Zammitti, 2016). Prior to the passage of the ACA, approximately 82% of Americans were insured, leaving an estimated 47 million individuals uninsured (Garfield, Licata, & Young, 2014). The most recent data from the Centers for Disease Control and Prevention indicate that the percentage of
insured Americans has risen to an all time high of 90.1% (still leaving 28.6 million individuals uninsured) at the end of 2015 (Cohen et al., 2016).

The substantial increase in health insurance coverage as a result of the ACA has significant implications for all health professionals in terms of utilization and reimbursement. Focusing on the mental health industry, mental health professionals should benefit from the implementation of key provisions of the ACA because the ACA requires mental health parity in most all insurance plans, including Medicaid; the ACA expands Medicaid eligibility; and the ACA substantially increases funding for FQHCs as FQHCs shift to an integrated delivery model, including mental health services (Flaskerud, 2014; Garfield et al., 2014; Wallace & McConnell, 2013).

Yet all mental health professions may not experience the same level of professional advancement and job security under the ACA because of long-standing disparities in Medicaid reimbursement policies. Since 2000, FQHCs have received enhanced reimbursement, known as the Medicaid Prospective Payment System (PPS), for services provided to Medicaid patients. Federal law approves only the following types of mental health professionals who can generate PPS encounters: social workers, psychologists, and psychiatrists. Federal law does not explicitly include the counseling profession so FQHCs must look to state law to determine if counselors may receive the favorable PPS reimbursement. Some states authorize LPCs to receive PPS reimbursement and some do not.

This review of the literature, first, summarizes the key provisions in the ACA that may influence the utilization of mental health services and the employment of mental
health professionals at FQHCs (e.g., mental health parity requirements, Medicaid expansion, and increased funding of FQHCs). Next, this review of the literature discusses the operation of the Medicaid Prospective Payment System at FQHCs, including which mental health professions are approved as PPS billable providers under federal and state law. Understanding the historic context of the ACA and the relevant provisions of the ACA designed to improve access to health care, including mental health services, in conjunction with certain Medicaid reimbursement policies that may not approve counselors as PPS billable providers, can inform counselors’ advocacy efforts and allow counselors to maximize their professional role in the provision and reimbursement of mental health services.

A review of the literature offers limited support for the quasi-experimental study’s hypotheses that Medicaid expansion resulted in significantly higher rates of change in the number of mental health visits and the number of FTE mental health staff at FQHCs in Medicaid expansion states as compared to FQHCs in non-Medicaid expansion states for the relevant time periods of 2012-2013 (pre-Medicaid expansion) and 2014-2015 (post-Medicaid expansion). Empirical evidence described in the following sections suggests the hypothesized sequential chain of events: (a) starting on January 1, 2014, Medicaid expansion states substantially increased the number of individuals covered by Medicaid insurance plans, such plans including mental health benefits, compared with Medicaid enrollment numbers in non-Medicaid expansion states; Sommers et al., 2015); and (b) individuals with Medicaid mental health insurance benefits were likely to seek mental health services at FQHCs (Han et al., 2015), especially as FQHCs are becoming
recognized as “providers of choice,” more FQHCs are designated as patient-centered medical homes (i.e., providing integrated medical and mental health services on-site), and FQHCs are able to expand mental health service capacity with increased ACA funding (NACHC, 2014c; Pourat & Hadler, 2014, p. 1-2). There is no existing literature, however, that explicitly concludes that FQHCs in Medicaid expansion states did, in fact, experience significantly higher rates of change in the number of mental health visits and the number of FTE mental health staff as compared to FQHCs in non-Medicaid expansion states for the relevant time periods of 2012-2013 (pre-Medicaid expansion) and 2014-2015 (post-Medicaid expansion).

**Legislative History of the Affordable Care Act**

The federal government’s role in the complex health care industry has evolved and grown substantially. As summarized by Gable (2011), “the political debate over the structure of the health care system in the United States has simmered for many decades, revolving around key issues of access to health services, quality of care, cost, and the role of government” (p. 341). Beginning in the 1900s, there were multiple failed attempts to create national insurance programs stemming from the Presidential administrations of Theodore Roosevelt, Franklin Delano Roosevelt, and Harry Truman (Gable, 2011). In 1965, President Lyndon Johnson did succeed in passing legislation to establish Medicare (universal health insurance for individuals aged 65+) and Medicaid (a joint state/federal insurance program for low-socioeconomic status families; Gable, 2011). Thereafter, various forms of national health insurance plans were proposed by Presidents Nixon,
Carter, and Clinton, but these plans failed to garner adequate congressional support (Gable, 2011; Starr, 1982).

The reasons for the failure of these legislative efforts to reform the U.S. health care system can be attributed to numerous factors, including: (a) political opposition from lawmakers and the health care industry, specifically the American Medical Association and the American Hospital Association; (b) ideological opposition based upon the historical American aversion to a strong federal government role in private sector activities; (c) concerns about negatively impacting the status quo; and, (d) the difficulty of navigating the complexity of the current health care system given its public-private structure and multiple stakeholders (Gable, 2011; Skocpol & Keenan, 2005).

Despite legislative failures, the motivation to improve the U.S. health care structure persisted, primarily due to mounting evidence of certain inadequacies in private insurance markets such as affordability, preexisting condition limitations, and coverage denials. It is widely acknowledged that the U.S. has the most costly health care system in the world and yet produces adverse outcome measures as compared to other industrialized countries. For example, in 2007 prior to the passage of the ACA, the U.S. spent $7,628 per capita on health care, approximately $2.24 trillion or 16.4% of gross domestic product (Centers for Medicare and Medicaid Services, 2015; Gable, 2011; The Henry J. Kaiser Family Foundation, 2012). In comparison, Canada spent $4,403 per capita and the United Kingdom spent $3,867 per capita during a similar time frame (10.1% and 8.4% of gross domestic product respectively; Organisation for Economic Co-operation and Development, 2009; Gable, 2011). Moreover, notwithstanding inflated
costs, the U.S. health care system often yields demonstrably lower health metrics than
many other industrialized nations. In the years preceding the implementation of the
ACA, the U.S. ranked 34th worldwide in maternal mortality rates and last among
industrialized nations in mortality from preventable conditions (Gable, 2011; The
Commonwealth Fund Commission on a High Performance Health System, 2008; World
Health Organization, 2009). The evidence is still being gathered as to whether health
indicators have improved since the passage of the ACA, but research generally indicates
significant financial benefits, significant increases in preventive services utilization, and
low to moderate improvements in health status indicators, with experts agreeing that
changes (if any) in health outcomes may take longer to “manifest” in data (Kotagal,

In addition to affordability issues, the other glaring problem of the pre-ACA
framework was insurance coverage denials due to preexisting conditions and large
increases in the number of uninsured—47 million Americans without any health
insurance coverage in 2010 (Gable, 2011; Garfield et al., 2014). A House Energy and
Commerce investigation of four insurers (Aetna, Humana, UnitedHealthcare and
WellPoint/Anthem) from 2007-2009 found that just those four insurance companies had
denied coverage to over 600,000 Americans (i.e., one of every seven who applied)
because of pre-existing conditions (Waxman & Barton, 2010). Not surprisingly, those
without health insurance are more likely to delay receiving care or refuse care due to
concerns about out-of-pocket costs; thus, the burden of poor health metrics often falls
disproportionately on the uninsured (Garfield et al., 2014). For example, a 2013 national
survey of 8,762 adults by The Henry J. Kaiser Family Foundation found that 41% of uninsured adults reported no health care visits in the past year, as compared to 10% of Medicaid beneficiaries and 13% of adults with employer coverage (Garfield et al., 2014). Similarly, many uninsured adults surveyed reported that they had no “usual source of care, or a place to go when sick or need advice about their health” (Garfield et al., 2014, p. 13).

Given ample evidence of the failures of the entrenched health care system, health care reform emerged as a major legislative initiative after the 2008 election of President Barack Obama. First introduced in 2009 in the House of Representatives, and following substantial debate and compromise between the House and Senate, the ACA was signed into law by President Obama on March 23, 2010. Probably the most controversial provision of the ACA is the “individual mandate” that imposes a requirement upon most Americans to obtain health insurance coverage or pay a penalty for noncompliance (Centers for Medicare & Medicaid Services, n.d.-a; Patient Protection and Affordable Care Act, 2010, 26 U.S.C. § 5000A). Importantly, the ACA addresses the inherent limitations of the fragmented U.S. health care system by eliminating preexisting condition limitations and lifetime caps in insurance plans; requiring insurance plans to cover 10 Essential Health Benefits including preventative services and mental health care; creating financial subsidies (e.g., tax credits) to those not otherwise eligible for public insurance options; expanding Medicaid to adults effectively below 138% of the Federal Poverty Level; and, increases funding to FQHCs (Patient Protection and Affordable Care Act, 2010). Although the ACA was signed into law in 2010, full
implementation is still ongoing, and health policy researchers continue to evaluate the impact of the reforms enacted by the law upon the health care industry.

**Affordable Care Act and Mental Health Services**

Among the improvements in insurance coverage enacted by the ACA are the expanded benefits for mental health and substance abuse treatments. The ACA ensures that almost all insurance plans include mental health services as one of 10 Essential Health Benefits. Prior to the ACA, Congress had mandated that mental health benefits be treated the same as medical and surgical benefits, but the legislation known as the Mental Health Parity and Addiction Equity Act of 2008 applied only to large group insurance plans (i.e., including 51 or more employees; Beronio et al., 2013). The ACA builds upon the earlier Mental Health Parity and Addiction Equity Act of 2008 by requiring that non-grandfathered health insurance coverage in individual and small group markets also offer mental health and substance use disorder services as one of the ten broad categories of service known as the 10 Essential Health Benefits (Flaskerud, 2014; Frank, Beronio, & Glied, 2014; Patient Protection and Affordable Care Act, 2010, 42 U.S.C. § 18022b; Patient Protection and Affordable Care Act, 2013). Consequently, with few exceptions, starting in 2014, new individual and group employer health insurance plans in all states must offer coverage for mental health and substance abuse disorders comparable to coverage for general medical and surgical care (Patient Protection and Affordable Care Act, 2010). Moreover, in regards to public health programs, the ACA extends the application of mental health parity requirements to Medicaid plans (Final Rules, 2013;

In light of the recent election of President Trump, there are concerns that the Affordable Care Act’s mental health parity requirements could be repealed (Szabo, 2016). Those fears may be allayed by the recent passage of the 21st Century Cures Act by Congress on December 7, 2016, that strengthens the mental health parity requirements beyond the ACA’s provisions. This Act directs the HHS to create an action plan, alongside stakeholders, for increased federal and state coordination related to mental health parity (American Psychological Association, 2016b). The Act also requires the HHS to issue new guidance to health plans in order to encourage compliance with existing mental health parity requirements (American Psychological Association, 2016b).

As it stands, the ACA has significant implications for the entire mental health industry—affecting all stakeholders, including clients, mental health professionals, insurance companies, government agencies (federal and state), and clinics, such as FQHCs, providing mental health services. In total, the HHS has estimated that the policy changes in the ACA related to mental health coverage could provide and expand mental health/substance use disorder benefits for an estimated 62 million Americans (Beronio et al., 2013).

The impact of mental health parity requirements on utilization of mental health services has been explored only to a limited extent by health policy researchers. According to these studies, whether expanded mental health coverage will result in increased utilization of mental health services remains unclear. One pre-ACA study
evaluated the utilization of mental health and substance use services among 43,855 enrollees in a large employee health plan following the removal of the 30-visit cap on the number of covered mental health visits as mandated by the Mental Health Parity and Addiction Equity Act of 2008 (Grazier, Eisenberg, Jedele, & Smiley, 2015). The authors concluded that there was a significant increase in the proportion of health plan enrollees with more than 30 outpatient visits after the cap’s removal, with a documented increase of 255% among subscribers and 176% among dependents (p < .001). The study, however, focused only on high mental health utilizers, those individuals whose usage of mental health care approached the 30 outpatient visits cap limit prior to parity legislation.

Another study of 43,892 Medicare enrollees in 173 various health plans who were hospitalized for a mental illness found a relationship between parity in cost sharing (i.e., equal out-of-pocket costs for mental health services and primary care services) and seeking timely outpatient mental health follow-up care after discharge, indicating an increase in mental health utilization with mental health parity (Trivedi, Swaminathan, & Mor, 2008). Yet, a difference-in-differences analysis from a sample of 22,652 individuals with employer-provided insurance by Haffajee et al. (2015) illustrated that mental health parity produced only modest effects on increasing access to use of outpatient mental health services. The authors concluded: “Ultimately, parity policies cannot alone solve access and utilization deficits in mental health care in the U.S. Addressing other barriers to care, such as provider under-supply and stigma, will supplement the effects of parity in mental health insurance coverage” (p. 2). Nevertheless, most health policy experts have universally supported the ACA’s
provisions expanding mental health parity for health insurance plans. Moreover, Congress appears committed to the concept of mental health parity as evidenced in the recent passage of the 21st Century Cures Act.

**Affordable Care Act and Medicaid Expansion**

Another major ACA policy reform that may influence the utilization and reimbursement of mental health services is the expansion of Medicaid, a jointly funded federal/state health care program for low-socioeconomic status families and individuals (Centers for Medicare & Medicaid Services, n.d.-a; Centers for Medicare & Medicaid Services, n.d.-b). As background, in 1965, the Medicaid program was created with the passage of Title XIX of the Social Security Act (42 U.S.C. § 1396-1 et seq.). State participation in the Medicaid program has always been voluntary, but once a state decides to participate, it must comply with all federal requirements (NACHC, 2011). The states accept federal funds (referred to in the Medicaid statute as Federal Medical Assistance Payments) in order to cover a percentage (a minimum of 50%) of the state’s expenses for the Medicaid program (NACHC, 2011). Any state participating in Medicaid must submit, for advance federal approval, its Medicaid State Plan. Each Medicaid State Plan includes information regarding eligibility conditions, medical care and services, payment, and compliance with program requirements. The Secretary of the HHS and its Regional Administrators of the Centers for Medicare and Medicaid Services then review each Plan to assure that it complies with federal statutory and regulatory requirements (NACHC, 2011).
Beginning January 1, 2014, the ACA expands Medicaid eligibility to adults up to 138% of the Federal Poverty Level. In 2014, the Federal Poverty Level amounted to $11,670 for an individual’s annual salary and $23,850 for a family of four (HHS, 2015a). Moreover, three Medicaid expansion states (Alaska, D.C., and Connecticut) have extended eligibility for individual adults to levels higher than 138% of the Federal Poverty Level (The Henry J. Kaiser Family Foundation, 2017). In non-Medicaid expansion states, the median eligibility limit for parents is 44% of the Federal Poverty Level, and adults who are not parents of dependent children remain ineligible for any Medicaid coverage, except in Wisconsin (which covers individual adults and parents at 100% of the Federal Poverty Level; The Henry J. Kaiser Family Foundation, 2017). In non-Medicaid expansion states, 2.6 million adults with incomes above the Medicaid eligibility limit, but below poverty fall into a coverage gap; they are ineligible for Medicaid and do not qualify for Marketplace coverage subsidies, which are only available for those with incomes at or above 100% the Federal Poverty Level (The Henry J. Kaiser Family Foundation, 2017).

Although the original intention of the lawmakers drafting the ACA was for all states to expand Medicaid, the U.S. Supreme Court in 2012 ruled that Medicaid expansion is optional for states (National Federation of Independent Business v. Sebelius, 2012). For those states that choose to expand their Medicaid programs, the federal government commits to pay 100% of Medicaid costs of those newly eligible beneficiaries from 2014 to 2016 (Paradise, 2015). The federal share gradually reduces down to 90% in 2020 and remains at that level for the years following (Paradise, 2015). There is no
deadline for states to adopt the Medicaid expansion; however, the federal match rates are linked to specific years (Paradise, 2015). For most of the 32 states, including the District of Columbia (D.C.), that have chosen to expand Medicaid, the expansion took effect on January 1, 2014 (The Henry J. Kaiser Family Foundation, 2016). As of March 2016, 19 states have elected not to expand Medicaid (The Henry J. Kaiser Family Foundation, 2016).

State leaders’ rationales for not expanding Medicaid despite federal assistance vary greatly, but partisan political motivations are of primary importance. Barrilleaux and Rainy (2014) examined governors’ decisions to oppose Medicaid expansion and noted that the ACA was passed “under a unified Democratic administration with no Republican support, a circumstance that has fueled conflict between the parties” (p. 438). State governors rejecting the Medicaid expansion assert that even with the federal match rate, their states could be left with unsustainable health care costs in the future (Badger, 2013; Goodnough, 2013). There is fear that Congress may remove support for Medicaid with a change of party control, leaving the states responsible for the entire cost of the program’s expansion (Coburn & Jindal, 2013). There is also concern that publicity associated with the Medicaid expansion will cause unsustainable program costs as the number of Medicaid enrollees swells with public awareness (OPTUMInsight, 2011). State governors who are primarily responsible for state economic performance and spending warn that Medicaid, a substantial and constantly expanding portion of state budgets, may overshadow other spending needs, such as education and public works (Altman & Beatrice, 1990; Brace, 1993).
**Medicaid Alternative Benefit plans.** Despite the ACA’s overarching federal requirements, the structure of Medicaid expansion programs varies from state to state, and states have certain leeway to craft their particular programs. Within broad federal requirements, states have the flexibility to develop their own Medicaid Alternative Benefit Plans to cover the Medicaid expansion population, but the Plans must be submitted to the Centers for Medicare and Medicaid Services for approval (Mahan & Traver, 2013; Medicaid and Children’s Health Insurance Programs, 2013; Patient Protection and Affordable Care Act, 2010, 42 U.S.C. § 1396u-7). Within the current study, the singular term Medicaid encompassed these state variations. Similar to market-based plans, Medicaid Alternative Benefit Plans must include the 10 Essential Health Benefits categories, including mental health and substance use disorder services, as outlined in the ACA (Mahan & Traver, 2013; Patient Protection and Affordable Care Act, 2010, 42 U.S.C. § 1396u-7 et seq.). It is important to note that these requirements meet the minimum standards, but states can choose to include additional benefits in their Medicaid Alternative Benefit Plans (Mahan & Traver, 2013).

**Effects of Medicaid expansion on insurance coverage.** The evidence related to the impact of Medicaid expansion (effective January 1, 2014, for all but seven of the 32 Medicaid expansion states) suggests greater insurance coverage and access and improved health metrics for those residing in Medicaid expansion states. In Medicaid expansion states, approximately 13 million more Americans were enrolled in Medicaid/Children’s Health Insurance Programs in April 2016 as compared to enrollment numbers in July/September 2013 (50,757,088 Medicaid/Children’s Health Insurance Programs
enrollees in April 2016 compared to 37,249,111 Medicaid/Children’s Health Insurance Programs enrollees in July/September 2013; Centers for Medicare & Medicaid Services, 2016). In contrast, within the 24 states choosing not to expand Medicaid as of June 10, 2014, Dickman, Himmelstein, McCormick, and Woolhandler (2015) estimated that 7.74 million individuals who could have gained Medicaid coverage if their states had elected Medicaid expansion would remain uninsured. Utilizing comparison data from the Oregon Experiment (discussed in the next paragraph), the authors also estimated that an additional 239,557 Americans residing in non-Medicaid expansion states would incur catastrophic medical expenditures (i.e., medical expenditures exceeding 30% of annual income) due to lack of insurance. Similarly, Nikpay, Buchmueller, and Levy (2016) found that in Medicaid expansion states, uninsured hospital stays decreased sharply and Medicaid-insured hospital stays increased sharply in the first two quarters of 2014. As expected, there was no change in payer mix (public insurance versus private insurance versus no insurance) in states that not expanding their Medicaid programs. Another study exploring the impact of Medicaid expansion employed a difference-in-differences analysis with data from the 2012-2015 Gallup-Healthways Well-Being Index, a daily national telephone survey (Sommers et al., 2015). The authors compared pre-ACA and post-ACA self-reported changes in insurance coverage for adults with incomes below 138% of the Federal Poverty Level in Medicaid expansion states versus non-Medicaid expansion states (Sommers et al., 2015). The authors determined that low-socioeconomic status adults in Medicaid expansion states reported significant increases in rates of insurance coverage compared with low-socioeconomic status adults in non-Medicaid
expansion states (Sommers et al., 2015). In summary, this literature supports the general consensus that Medicaid expansion states have been successful in their efforts to enroll newly eligible individuals and families into their Medicaid insurance programs.

**Effects of Medicaid expansion on utilization of mental health services.** The limited studies discussed in this section provide some support for the basic concept that increasing Medicaid coverage will increase utilization of mental health services. The research, however, is not unequivocal and the particular impact of Medicaid expansion upon the utilization of mental health services, especially at FQHCs, has not been fully explicated.

It should be emphasized that Medicaid is the most important source of funding for mental health services, making up 27% (or $39.7 billion) of the estimated $147 billion spent in the U.S. per year on mental health services (categorized separately from substance abuse services) according to 2009 spending data, the most recent available year (Substance Abuse and Mental Health Services Administration, 2013). In a public policy report published prior to Medicaid expansion, the National Alliance on Mental Illness (2013) summarized the stark statistic that six out of 10 Americans living with serious mental illness had no access to mental health care (primarily due to lack of mental health insurance benefits). The provisions of the ACA addressing Medicaid expansion combined with mental health parity requirements are designed to alleviate this disparity.

As previously described, the ACA and subsequent rulings from the Centers for Medicare and Medicaid Services clarify that the application of the mental health parity requirements extend to all insurance plans including Medicaid plans (Mann, 2013; Final
Rules, 2013; Medicaid and Children’s Health Insurance Programs, 2016). Applying the mental health parity requirements to both marketplace plans and Medicaid plans helps to alleviate inequity related to the provision of mental health services. Unfortunately inequities between private and public insurance coverage will likely continue as long as Medicaid reimbursement continues to be substantially lower than other payers.

Nevertheless, because mental disorders are correlated with both low-socioeconomic status and with the lack of health insurance, it can be posited that individuals with mental health needs should benefit from the ACA’s Medicaid expansion depending on their state of residence (Garfield, Lave, & Donohue, 2010; Golberstein & Gonzales, 2015; Haber, Khatutsky, & Mitchell, 2000). It has been estimated that approximately 10.9 million uninsured adults aged 18 to 64 have a behavioral health disorder, and of these, 5.3 million (48.3%) are individuals with incomes below 138% of the Federal Poverty Level and potentially eligible for coverage under Medicaid expansion (Ali et al., 2015; Substance Abuse and Mental Health Services Administration, 2014).

Health policy research continues to evaluate the effect of the ACA’s Medicaid expansion on mental health service utilization, and limited published studies have produced mixed results (although the prevailing conclusion is that Medicaid expansion has increased mental health service utilization as more individuals gain coverage). In general, the lack of health insurance is a major barrier to obtaining mental health services, and the out-of-pocket prices of mental health services affect personal decisions regarding obtaining such services more so than those related to general medical services (Rowan, McAlpine, & Blewett, 2013). Han et al. (2015) examined National Survey on Drug Use
and Health data from 2,000 adults aged 18 to 64 years with serious mental illness and incomes below 138% of the Federal Poverty Level and estimated that those with Medicaid were 30.1% more likely to receive mental health treatment as compared to their uninsured counterparts. Their findings suggest that gaining Medicaid coverage may substantially increase mental health service utilization compared to utilization by the uninsured (Rowan et al., 2013).

In a similar vein, although not specifically focused on Medicaid expansion, Saloner and Lê Cook (2014) found that the ACA’s reform allowing dependents aged 19-25 to remain covered on their parents’ health insurance plans increased mental health treatment by 5.3% for young adults aged 18-25 with possible mental health or substance use disorders (utilizing data from the 2008-12 National Survey of Drug Use and Health). Yet contrary to this study’s hypothesized results, the research of Golberstein and Gonzales (2015) did not find significant increases in the utilization of mental health services as a result of Medicaid insurance benefits. The researchers focused on the Medicaid expansion policy utilizing secondary data from the 1998-2011 Medical Expenditure Panel Survey Household Component merged with National Health Interview Survey and state Medicaid eligibility rules data. The authors did not examine the current 2014 nationwide Medicaid expansion, but rather, at smaller-scale, state-level Medicaid expansions that have occurred in the past. The authors implemented instrumental variables regression models to estimate the impact of Medicaid expansion and concluded that Medicaid expansion significantly increased health insurance coverage and reduced out-of-pocket spending on mental health services for low-socioeconomic status adults. In
this study, however, expanding Medicaid eligibility did not significantly escalate the utilization of mental health services.

Because of the recent implementation of these policy changes, researchers are continuing to investigate how Medicaid expansion under the ACA will impact mental health service access and utilization. In summary, the literature in this section provides some support for the current quasi-experimental study’s premise that FQHCs in Medicaid expansion states will experience a significantly higher rate of change in the number of mental health visits as compared to FQHCs in non-Medicaid expansion states for the relevant time periods of 2012-2013 (pre-Medicaid expansion) and 2014-2015 (post-Medicaid expansion; Sommers et al., 2015). However, none of the discussed studies focused specifically on the setting of FQHCs and none discussed increased employment opportunities for mental health professionals. More studies are justified because the literature is not without conflicting conclusions and the reform of Medicaid expansion has only recently been implemented (effective date January 1, 2014), so the long-term impact of the policy is unknown (especially at FQHCs). Moreover, even with the potential repeal of the ACA, some version of Medicaid expansion will likely remain in effect, the real issue being whether state or federal government will bear the costs, and FQHCs will likely retain their status as the primary care provider for over 24 million Americans.

The next section explores literature supporting the premise that FQHCs are vital health care providers in the U.S. health care system and are on the forefront of implementing the latest health care trends, especially the model of integrated care where
patients can obtain both medical and mental health care services at the same delivery site. FQHCs have historically been the safety net providers for the uninsured and underinsured, and thus, FQHCs in Medicaid expansion states should experience substantial increases in their Medicaid populations as the new Medicaid enrollees access health care services. Increasingly FQHCs are becoming recognized not just as safety net providers but also as “providers of choice” with more FQHCs receiving the designation of patient-centered medical home. For patients needing outpatient mental health services, FQHC staff physicians are able to refer to on-site or contracted, integrated mental health professionals (NACHC, 2014c; Pourat & Hadler, 2014, p. 1-2). Accordingly, FQHCs offer researchers a unique opportunity to evaluate the impact of health reforms such as Medicaid expansion and mental health parity on mental health service utilization and employment. Ultimately, the synthesis of the available literature in Chapter II lends support for the current quasi-experimental study’s hypotheses that FQHCs in Medicaid expansion states experienced significantly higher rates of change in the number of mental health visits and the number of FTE mental health staff as compared to FQHCs in non-Medicaid expansion states for the relevant time periods of 2012-2013 (pre-Medicaid expansion) and 2014-2015 (post-Medicaid expansion).

**Affordable Care Act and Federally Qualified Health Centers**

The ACA specifically recognizes the important role of FQHCs in the U.S. health care landscape, especially in medically underserved communities, by allocating $11 billion in new funding to expand patient capacity at new and existing health centers and fund capital improvements to expand and improve existing facilities and build new ones.
FQHCs provide comprehensive outpatient primary health care, including mental health services, so this increased ACA funding has presumably enabled FQHCs to increase the utilization of mental health services and the employment of mental health providers, but this expansion has yet to be empirically determined (BPHC, n.d.; Jones et al., 2015). Understanding the historical context of FQHCs, the details of the ACA’s funding to FQHCs, the role of FQHCs in mental health service delivery, and FQHC Medicaid reimbursement methodologies provides the foundation for the current study and further warrants its purpose.

**History of Federally Qualified Health Centers**

The ACA significantly expands the role of FQHCs through increased funding and Medicaid expansion, but a review of the prior legislative history of these health centers illustrates the obstacles and evolution of this important provider of health care services. Understanding the historical background of FQHCs also provides the context for the relevance of the current study. Bonnie Lefkowitz (2007), in her book *Community Health Centers: A Movement and the People Who Made it Happen*, has expertly chronicled the expanding role of neighborhood and community-based health centers (later placed by Congress under the umbrella “Federally Qualified Health Center” program in 1989).

The original health centers were founded by political advocates during the tumultuous 1960s and marked a shift in the health care delivery model towards integrated care (Lefkowitz, 2007). In this time of political and social unrest, President Lyndon Johnson created the Office of Economic Opportunity, which established social welfare programs such as Medicaid and Medicare (Schorr & Schorr, 1989). Champions of the
civil rights movement of the 1960s were looking for ways to improve the health of their
own communities (Smith, 2005). One advocate Jack Geiger was inspired by a
community health primary care model led by Sidney and Emily Kark based in South
Africa (Lefkowitz, 2007). The Karks implemented an epidemiological approach,
meaning that everyone living in the rural tribal reserve of Pholela was considered a
patient. The clinics they established collected information about the community’s health
issues and developed an integrated plan that included nutrition consultation, prevention
efforts, and environmental interventions (Kark & Kark, 1999). Geiger, heavily
influenced by the Karks’ model, later helped to start a community clinic based out of
Tufts medical school in Massachusetts, a never-before attempted health care organization
model in the U.S. (Lefkowitz, 2007). In 1965, Geiger and the team of physicians and
activists were able to secure a grant from the newly created Office of Economic
Opportunity (Lefkowitz, 2007). Massachusetts Senator Ted Kennedy also played an
influential role in the development of community-based health centers by helping to
secure $51 million to support burgeoning clinics, now being established in Denver,
Chicago, and Los Angeles (Sardell, 1988; Schorr & Schorr, 1989). With this funding, 33
new community-based clinics were founded during the year 1967, and the Office of
Economic Opportunity appeared fully committed to the health center program (Sardell,
1988; Schorr & Schorr, 1989).

Health centers soon proved to be a successful health care delivery model because
these clinics provided medically underserved communities with health care that reduced
chronic disease, lowered infant mortality, and addressed common health issues
(Lefkowitz, 2007). Moreover, health centers produced cost savings (Davis & Schoen, 1978). By 1971, there were 150 community-based health centers in inner city and rural areas (Clark, 2002). Still, the election of President Richard Nixon and the “New Federalism” movement to reduce the number of federal/government-supported programs posed a significant threat (Sardell, 1988). Proposed new regulations in 1972 posited that health centers no longer required federal funding due to the collection of reimbursements from Medicare, Medicaid, and private insurers (Sardell, 1988). However, a report by the General Accounting Office (now the Government Accountability Office) illustrated that relying on reimbursements was not feasible for health centers, in part due to the high numbers of uninsured ineligible for Medicaid or Medicare coverage and unable to afford private insurance (Sardell, 1988).

As a result of this political threat to health centers and the responsive action of political advocates, in 1973 Congress widely passed a bill to extend funding for the health center program for one year (Sardell, 1988). Soon after, the Special Health Revenue Sharing Act of 1975 authorized substantially more funding for health centers than in previous years through fiscal year 1977 (Sardell, 1988). This bill is viewed as a turning point towards permanently establishing funding for the health center program because it established the program’s own legislative authority, ensuring a separate categorical grant category for community-based health centers (Sardell, 1988). The Special Health Revenue Sharing Act of 1975 also established the requirement that all health centers maintain a consumer-majority governing board (Sardell, 1988). President Carter’s budget reflected his return to the Democratic Party’s social welfare ideals and
support of community health programs (Sardell, 1988). At the end of the 1970s, the Brookings Institution’s report *Health and the War on Poverty* favorably assessed the role of health centers and the overall economic savings generated by their utilization (Davis & Schoen, 1978).

President Ronald Reagan’s political agenda centered on the simplification of and reduction in government programs, including the health center program (Clark, 2002; Lefkowitz, 1976). As such, the Reagan administration proposed that the health center program be funded via block grants—federal monies provided to local entities with only general guidelines as to how the money should be spent. Health center advocates were fearful of this change because programs funded by block grants were less likely to receive funding increases in future years (Lefkowitz, 1976). Because of advocacy from individual health center governing boards, the NACHC (founded in 1971), and both Democratic and Republican politicians, the block grant proposal was overturned (Reynolds, 1999).

In 1989, during the George H. W. Bush administration, Congress established the umbrella “Federally Qualified Health Center” program, and furthermore, amended the definition of *health center* in existing Medicaid legislation to include FQHCs, the health services covered, and most importantly, the FQHC enhanced payment methodology for Medicaid patients (Omnibus Budget Reconciliation Act of 1989; Lefkowitz, 2007). Congress was concerned that FQHCs were improperly using grant funds for the uninsured to subsidize the unreimbursed care for Medicaid patients. The expressed purpose of this legislation was to “ensure that Federal [Public Health Service Act] grant
funds are not used to subsidize health center or program services to Medicaid beneficiaries” (NACHC, 2011, p. 3). Under the new payment methodology (PPS), Medicaid reimbursement increased for various health care services provided at FQHCs, and soon Medicaid payments replaced federal grants as the largest source of income for FQHCs (Institute of Medicine, 2000).

When President Bill Clinton was elected, the Clinton administration sought, unsuccessfully, to universalize health insurance coverage and remove the “two-tiered” system of health care delivery—with private insurance and hospitals/clinics for the more affluent and FQHCs and public health hospitals for the uninsured or Medicaid-insured. Under the proposed Clinton plan, the benefits of FQHCs as a safety net were minimized (Lefkowitz, 2007, p. 23). Still, FQHC funding remained stable even after the 1994 Republican victory of the U.S. House (Lefkowitz, 2007). President George W. Bush embraced the goal of doubling FQHC capacity in his campaign and continued to support financial measures to ensure its reality (Sack, 2008). Critics, however, have argued that Bush’s support of FQHCs purposefully detracted from discussions of universal health insurance coverage for all Americans (Lefkowitz, 2007). The ACA enacted by President Obama further reinvigorated support for FQHCs as evident in the ample funding for these health centers (BPHC, n.d.). Throughout their history, community-based health centers, now known as FQHCs, have faced significant challenges, but their importance as a model of integrated health care delivery has continued to expand decade after decade, despite political shifts.
**Affordable Care Act and Federal Funding for Federally Qualified Health Centers**

FQHCs are vital to the success of the ACA, especially given the ACA’s policy of Medicaid expansion, because this delivery model revitalizes and strengthens the nation’s primary care infrastructure in the wake of increased demand for health services. Congress understood that the ACA’s expansion of health insurance coverage would likely increase utilization of all health services, including mental health services, and recognized the role of FQHCs as a vital solution for this resulting increased demand (Shin, Sharac, Barber et al., 2015). Thus, the ACA provided an additional $11 billion in dedicated funding to support FQHCs over five years (2010 to 2015). Major construction and renovation projects were allocated $1.5 billion, and $9.5 billion was targeted to “support ongoing health center operations; create new health center sites in medically underserved areas; expand preventive and primary health care services, including oral health, behavioral health, pharmacy, and/or enabling services, at existing health center sites” (BPHC, n.d., p. 2). Because the ACA’s funding ended in 2015, a budget shortfall known as the *primary care cliff* was imminent in 2016. In March and April of 2015, Congress passed a bill that includes two years of continued discretionary funding (at $7.2 billion total) for FQHCs (NACHC, n.d.-a). Whether or not this funding will be permanently legislated is still being debated in Congress.

In order for an individual FQHC to receive this federal funding, the health center must comply with strict annual data reporting requirements. Known as the Uniform Data System, this essential information facilitates research that shapes future health care policy
reform (HRSA, n.d.). FQHCs submit annual reports to the Uniform Data System documenting the types of health services provided, the types of health care professionals employed, patient demographics, and the amount of federal grant money received, in addition to other essential information (BPHC, 2014). Aggregated at the state and national level, Uniform Data System data (published annually in the fall for the previous year) is publicly available for research purposes and enables researchers to evaluate the success of various health reform policies implemented at FQHCs in almost real time. In summary, the annual reports serve as a crucial source of information for U.S. health care policy, especially regarding the population of low-socioeconomic status individuals who are the primary utilizers of FQHC services (Jones et al., 2015; Lefkowitz, 2007; Lesnik, 2004).

In this particular study, for example, the annual reports submitted by FQHCs nationwide provided a comprehensive sample from which to test certain hypotheses and generate insights regarding the ACA’s reform policy of Medicaid expansion upon mental health service utilization and mental health staffing at FQHCs. The annual reports from 2012-2013 (pre-Medicaid expansion) to 2014-2015 (post-Medicaid expansion) were used to determine whether FQHCs in Medicaid expansion states experienced significantly higher rates of change in the number of mental health visits and the number of FTE mental health staff as compared to FQHCs in non-Medicaid expansion states.
Important Role of Federally Qualified Health Centers in Mental Health Service Delivery During Medicaid Expansion

According to Uniform Data System reports, FQHCs have experienced tremendous growth in the number of mental health visits from 2003 to 2013 at 334% and this trend is likely to continue through Medicaid expansion (NACHC, 2014b). Moreover, since Medicaid plans provide mental health insurance coverage, an increase in the number of Medicaid enrollees could result in an increase in the number of FQHC mental health visits and necessitate an increase in FTE mental health staff.

To date, few studies have utilized the annual reports generated by FQHCs through the Uniform Data System to better understand the effects of Medicaid expansion upon mental health service utilization and staffing. Additional research examining the impact of Medicaid expansion upon FQHCs is needed, especially given that Medicaid expansion is optional for states and some states have elected not to expand their Medicaid programs. Jones et al. (2015) used data reported by FQHCs to predict the number of FQHC mental health visits that might be possible in 2020 if all states elected to expand Medicaid. The authors concluded that if all states were to expand Medicaid by 2020, there would be an additional $11.3 million in revenue for the provision of mental health services at FQHCs, which would result in over 70,500 additional mental health visits. Jones et al. (2015) focused more on the financial impact of Medicaid expansion for mental health service delivery at FQHCs.

A study using Oregon Experiment data explored the coverage expansion and mental health service utilization issue on a smaller, state-specific scale. DeVoe et al.
(2015) matched demographic data from adults (aged 19-64 years) participating in the Oregon Experiment to electronic health record data from 108 Oregon community health centers (N = 34,849). The authors implemented Poisson regression models to compare 36-month (2008-2011) usage rates at Oregon community health centers among those receiving Medicaid coverage versus those not selected to receive Medicaid coverage, and then used instrumental variables analyses to estimate the effect of gaining Medicaid coverage on mental health treatment at community health centers (a Poisson model was also used in the current study). While the instrumental variables analyses illustrated significantly higher rates of primary care visits for those receiving Medicaid coverage, there was not a significant increase in the use of mental/behavioral health services. It should be noted that this finding related to mental health service utilization is contrary to the current study’s hypothesis. The authors stated that they only assessed services provided in the primary care setting, and more severe mental health conditions prompting referral to an outside clinic were excluded from the data. This limitation also applied to the current study because mental health visits resulting from referrals to providers who are not employed by the FQHC cannot be tracked and are not included in the Uniform Data System annual reports (i.e., referrals for severe mental health problems that are not appropriate for treatment at FQHCs on an outpatient basis).

A more recent study published by Shin, Sharac, Zur, Rosenbaum, and Paradise (2015) examined changes in FQHC patient composition since Medicaid expansion. The authors compared 2013 and 2014 Uniform Data System reports (pre- and post-Medicaid expansion) to assess the growth in the number of FQHC patients covered by Medicaid.
The authors concluded that between 2013 and 2014, the number of FQHC patients with Medicaid coverage rose by approximately 1.85 million in all states (i.e., both Medicaid expansion and non-Medicaid expansion states), resulting in a total of 46% of all FQHC clients being covered by Medicaid. The percentage of FQHC patients covered by Medicaid from 2013 to 2014 increased 20% in Medicaid expansion states and only 3% in non-Medicaid expansion states. The total uninsured rate among health center patients was reduced by 20% between 2013 and 2014, declining from 35% to 28% of total patients. As expected, the uninsured rate in the Medicaid expansion states declined much more (from 32% to 22%, a 29% decline) compared to non-Medicaid expansion states (from 41% to 38%, an 8% decline). Shin, Sharac, and Zur et al. (2015) also found that FQHCs in Medicaid expansion states were more likely than those in non-Medicaid expansion states to have increased mental health service capacity from 2013 to 2014, a 42% increase as compared to a 35% increase. Mental health service capacity was not specifically defined in this study, but it can be assumed that the variable relates to the number of mental health visits and/or mental health staff. The authors concluded: “It is reasonable to surmise that increased patient revenues generated by increased coverage among low-income populations help health centers to expand their service capacity” (p. 8). This study, however, has limitations because there were few details provided regarding the types of statistical analyses utilized to find statistical significance, and it does not appear that the authors accounted for the rate of change in mental health services occurring prior to Medicaid expansion.
Despite the study’s limitations, Shin, Sharac, and Zur et al.’s (2015) findings are relevant to the current study. The authors noted:

Health centers are well-equipped to assist patients who are very poor, new to navigating a complex system of coverage, enrollment, and plan selection, and often without access to technology necessary to enroll online. Even so, despite streamlined enrollment systems under the ACA, patient confusion about eligibility and documentation requirements pose major challenges to health centers’ current enrollment activities. Health center grant funding will remain important to sustaining health centers’ ability to link their patients and communities to coverage (p. 10).

Shin, Sharac, and Zur et al. (2015) concluded that regardless of an individual state’s Medicaid expansion decision, the federal grant funding provided to all FQHCs through the ACA is essential for FQHCs to build capacity to provide health services. The confusion related to Medicaid enrollment will likely ease over time as FQHCs are able to engage in public health outreach activities and communicate information about Medicaid eligibility to more beneficiaries.

As evidenced in the previous literature discussion, no prior studies have specifically utilized difference-in-differences analysis to examine the rate of change in the number of mental health visits and FTE mental health staff at FQHCs in Medicaid expansion states and non-Medicaid expansion states. Further research examining the causal impact of Medicaid expansion upon the utilization of mental health services and mental health staffing at FQHCs is warranted as policymakers are faced with budgetary constraints, and this research could provide valuable support for counselor lobbying efforts to expand their role as mental health care providers.
Patient-Centered Medical Home Model (PCMH)

While the current study did not specifically examine the concept of integrated health care within FQHCs, the significance of this trend cannot be overstated. Although health centers were originally established to provide only basic primary care services, integrated health services provided by a team of health care professionals, including dental care, nutrition consultation, and mental health care, is now the gold standard (Lefkowitz, 2007; HHS, Agency for Healthcare Research & Quality, n.d.). Implemented within FQHCs and other primary care clinics, this integrated health care delivery model is known as the patient-centered medical home (PCMH).

PCMH is defined as encompassing five attributes: (a) comprehensive care—using a team of health care providers to meet the majority of each patient’s physical and mental health needs, including prevention and wellness, acute care, and chronic care; (b) patient-centered—providing health care that is relationship-based with an orientation toward the whole person; (c) coordinated care—coordinating care across all elements of the broader health care system, including specialty care, hospitals, home health care, and community services and supports; (d) accessible services—delivering accessible services with shorter waiting times for urgent needs, enhanced in-person hours, around-the-clock telephone or electronic access to a member of the care team, and alternative methods of communication such as email and telephone care; and (e) quality and safety—using evidence-based medicine and clinical decision-support tools to guide shared decision making with patients and families (HHS, Agency for Healthcare Research & Quality, n.d., para. 2-6). Given the patient population generally served by FQHCs, the PCMH
model makes sense for the treatment of patients with chronic conditions, such as diabetes, asthma, hypertension, and depression (The Henry J. Kaiser Family Foundation, 2013).

The ACA provides financial support to construct new PCMH-model FQHCs and to improve the ability of existing FQHCs to provide team-based, integrated care (HHS, 2014). The ACA also provides financial support for research establishing the efficacy of PCMHs related to various health outcomes, such as cost effectiveness, patient satisfaction, and patient access to care (NACHC, n.d.-b, para. 1; NACHC, 2014c). The impact of the PCMH model upon FQHCs cannot be overstated; in 2009, less than 1% of FQHCs were qualified as PCMHs, whereas in 2014, 61% of FQHCs were PCMHs (NACHC, 2014c). This transformation has implications for the current study because the integrated model of health care delivery could foster increases in mental health visits and mental health staffing across FQHCs in Medicaid expansion and non-Medicaid expansion states.

Due to support from federal agencies such as the HHS’ Agency for Healthcare Research & Quality, there has been substantial research documenting the efficacy of PCMH in terms of client health outcomes and cost savings. A review of literature pertaining to clinical settings other than FQHCs found associations between PCMH and improved health care quality (i.e., health care that includes preventative screenings, chronic illness care, and medication management), in addition to decreased utilization of emergency department use (Hoff, Weller, & DePuccio, 2012). Specifically examining community health centers, Jones and Ku (2015) investigated collaboration between co-located providers (i.e. providers working at the same clinic site) and assessed the extent
to which health centers practiced integrated care. Employing the Assessment of Behavioral Health Services survey and 2010 Uniform Data System reports, the authors determined that more than 85% of health centers provided mental health services in 2010 (though not necessarily within the PCHM model). Community health centers less commonly reported a higher degree of integrated care involving joint case conferences, but most community health centers reported shared access to patient information among behavioral health and medical providers and joint care planning.

Studying the efficacy of the PCMH model at health centers, Shi et al. (2016) utilized 2012 Uniform Data System reports (e.g., measures of quality care) to compare clinical performance between health centers with and without PCMH recognition. The authors concluded that after controlling for health center patient, provider, and practice characteristics, PCMH health centers reported significantly better performance on asthma-related pharmacologic therapy, diabetes control, pap testing, prenatal care, and tobacco cessation intervention. Depression screening and follow-up was recently added as a measure of quality care, so mental health delivery was not specifically assessed in this particular study.

More recent research (i.e., post-ACA and Medicaid expansion) related to the efficacy of the PCMH model within FQHCs could not be identified, but the implementation of ACA policy reforms creates opportunities for further research of the model. As integrated health protocols become more established at FQHCs and in other primary care settings, counselors can benefit professionally from engaging in research that empirically establishes the benefits of integrated counseling for improved health

**Medicaid Reimbursement Methodologies at Federally Qualified Health Centers**

Understanding the relationship between FQHCs and Medicaid reimbursement methodology (known as the Medicaid Prospective Payment System) is essential to the current study because this study focused specifically on the effects of Medicaid expansion upon mental health service utilization and mental health staff employment at FQHCs. Early on, it was evident to policymakers that health centers and Medicaid would have an intertwined relationship (Shin, Sharac, & Rosenbaum, 2015). This interdependency was illustrated in a 1967 agreement between the Department of Health, Education, and Welfare, which initially administered Medicaid and Medicare, and the Office of Economic Opportunity, which was initially responsible for the health center program (Adashi, Geiger, & Fine, 2010; Shin, Sharac, & Rosenbaum, 2015). In the agreement, the Office of Economic Opportunity planned to create 1,000 community health centers by 1973, and in return, the Medicaid program would provide as much as 80% of the operational costs (Davis & Schoen, 1978; Shin, Sharac, & Rosenbaum, 2015). As described by Shin, Sharac, and Rosenbaum (2015), “Ultimately, it would take nearly fifty years to reach this goal of health center expansion as well as to fulfill the early vision of providing access to health care in medically underserved communities, with Medicaid serving as the principal growth engine” (p. 2).
Medicaid Prospective Payment System at Federally Qualified Health Centers

The Medicaid payment reimbursement methodology has evolved over time for FQHCs. From the passage of the 1989 legislation defining the umbrella “Federally Qualified Health Center” program until 2000, the Medicaid payment system was based on per visit (i.e., encounter) payment rates and retroactive adjustments to capture all costs associated with each visit (NACHC, 2011). In simple terms, each FQHC received a provisional per visit rate premised on the prior year’s rate and an annual reconciliation. After the year ended, the cost reports for that year were reconciled, and the level of overall payments was adjusted retroactively. As one might expect, this approach was unwieldy and time-consuming (NACHC, 2011). Moreover, there were few incentives for FQHCs to curb costs because costs could be recouped retroactively (NACHC, 2014a).

In 2000, the former unwieldy system was suspended, and Congress mandated FQHC payment methodology be changed from a retrospective system to a Prospective Payment System (PPS; Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000, 2000; NACHC, 2011). FQHCs are now reimbursed for Medicaid services based on a fixed payment per visit using the average cost per visit over the 1999-2000 period as a base and adjusting thereafter using the Medicare Economic Index for inflation (42 U.S.C. § 1396a(bb)(1); Taylor, 2004). Because the Medicare Economic Index is a conservative inflation index that does not reflect actual cost increases, FQHCs must also depend on other sources of funding (DeLeon, Giesting, & Kenkel, 2003). States may also choose to implement an alternative payment methodology, including reasonable cost reimbursement, as long as the payment per visit is not less than under the
PPS methodology (Federally Qualified Health Centers, 2016, § 8.700.6.C.3). States generally recognize that attempts to save money through lower-priced reimbursement schemes can result in spending budget increases over time; if FQHCs become financially unstable, more individuals may be forced to use expensive, emergency room-based care subsidized by state tax dollars (Taylor, 2004). Thus, some states have chosen to reimburse FQHCs even more generously than PPS in their alternative payment methodology plans (Taylor, 2004). Although not discussed in detail in the current study, Medicaid managed care has also created issues for state budgets because under PPS, states must pay FQHCs a “wrap-around” payment for the difference between the per visit rate and the payment received from managed care organizations, which is typically less (Koppen, 2001; McAlearney, 2002; Taylor, 2004, p. 13).

Overall, the PPS assists FQHCs in remaining “financially viable” while serving a large population of uninsured and underinsured individuals (Van Coverden, n.d., p. 1). Prior to the implementation of PPS, more than half of all community health centers reported operating deficits in 1997, 1998, and 1999 (McAlearney, 2002). An Institute of Medicine report released in 2001 found that health centers’ ability to fulfill their mission to serve all patients seeking care, regardless of ability to pay, was challenged by three primary factors: (a) an increasing number of uninsured patients; (b) an erosion of the subsidies used to cover the cost of providing free care; and (c) an increase in the use of Medicaid managed care. Between 1989 and 1997, the number of uninsured adults (under 65 years old) increased by 10.1 million to approximately 43.4 million as a consequence of declines in both public and employer-sponsored coverage (Carrasquillo, Himmelstein,
Woolhandler, & Bor, 1999). In a similar timeframe (between 1990 and 1998), federal funding to community health centers remained constant at approximately $230 per uninsured user, even though operating costs escalated (Institute of Medicine, 2000; McAlearney, 2002). The implementation of PPS from 2000 forward at FQHCs has helped to ensure the financial stability of FQHCs.

Essentially, the PPS rate for various health care services, including mental health services, is significantly elevated as compared to traditional Medicaid insurance reimbursement (Van Coverden, n.d.). For example, in 2006 in Connecticut, the PPS rate for mental health services was $136 per visit, more than 195% greater than the traditional Medicaid reimbursement rate of $69 for LCSWs outside of FQHCs (Schwartz & Shin, 2006; Starkowski, 2007). The end result of this reimbursement policy is that “Medicaid pay[s] FQHCs their PPS rate for each face-to-face encounter between a Medicaid beneficiary and a billable provider for a medically necessary and covered service” (NACHC, 2015a, p. 3). The PPS allows FQHCs to recoup some “overhead and additional costs” and ensures that grant funding intended for the uninsured is used for the uninsured and not used to “subsidize inadequate Medicaid reimbursement” (Van Coverden, n.d., p. 1-2). It appears that, overall, state lawmakers appreciate the PPS because it limits their payments to FQHCs and creates more predictable FQHC Medicaid expenses (Taylor, 2004). The PPS also reduces the time, energy, and resources associated with annual cost report auditing required by the prior cost-based system (Taylor, 2004).
Despite the favorable PPS reimbursement available to FQHCs for Medicaid patients, FQHCs must remain adept at ensuring their financial viability. According to the NACHC’ 2011 report entitled “Emerging Issues in the FQHC Prospective Payment System,” there are various state practices that can result in inadequate payment levels to FQHCs (e.g., placing limits on allowable cost categories, requiring providers to see a certain number of patients per year or face lower reimbursement, imposing visit limits, not reimbursing for a client’s same-day medical and mental health visits, etc.). Fortunately for FQHCs, there exists a “favorable body of case law that can be used – through rulemakings, informal negotiation with the Medicaid agency, or litigation – to safeguard FQHC reimbursement” (NACHC, 2011, p. 14). Although not addressed in this study, the ACA requires FQHCs on October 1, 2014, to transition to PPS for Medicare based on a national rate which is adjusted based on the location of where the services are furnished. The rate is increased by 34.16% when a Medicare patient is new to the FQHC, or an Initial Preventive Physical Exam or Annual Wellness Visit is furnished (see § 10501 of the Patient Protection and Affordable Care Act of 2010). Clearly the PPS reimbursement methodology, first implemented in 2000, remains vital to the financial stability of FQHCs.

**Value-Based Payment at Federally Qualified Health Centers**

Although the PPS is currently the primary method of reimbursement for FQHCs, in the near future, FQHCs may be reimbursed based on value (i.e., health outcomes). Value-based payment models are varied, but can be defined as “financial incentives that aim to improve clinical quality and outcomes for patients, while simultaneously
containing (or better yet) reducing health care costs” (Conrad, Vaughn, Grembowski, & Marcus-Smith, 2015, p. 2). This trend is being driven by a combination of forces (Conrad et al., 2015). Payers, both private insurance companies and federal/state government, are seeking increased cost effectiveness in health plan benefits for their members. Insurance companies are searching for payment models and aligned benefit designs that will lead to improved patient health outcomes and health care quality at lower costs (Conrad et al., 2015). Moreover, clinics and individual providers are attempting to circumvent the “hamster wheel” of volume-driven reimbursement, scheduling and patient care to generate revenue (Conrad et al., 2015, p. 2).

Many health centers are seeking to end reimbursement that rewards high numbers of face-to-face visits and curtails innovations such as telemedicine that could benefit patients (Shin, Sharac, & Jacobs, 2014; Shin, Sharac, & Rosenbaum, 2015). Medicaid generally supports reforms that improve cost effectiveness, and there are an increasing number of collaborations between state Medicaid administrations and health centers seeking to reform the current payment methodologies (Shin, Sharac, & Rosenbaum, 2015). Recognizing that a shift to value-based systems may occur in the near future is important to understanding the implications of the current study. Regardless of the type of payment reimbursement methodology used for FQHCs, it can be surmised that as Medicaid coverage expands to more individuals who were previously uninsured, FQHCs may experience an increase in the utilization of mental health services that may require increased staffing of mental health professionals.
Licensed Professional Counselors and Licensed Clinical Social Workers as Billable Mental Health Providers Under the Medicaid Prospective Payment System

Because Medicaid is a joint-funded state and federal program, individual states have a degree of discretion in the program’s important administration decisions as they relate to FQHCs (Centers for Medicare & Medicaid Services, n.d.-a; Centers for Medicare & Medicaid Services, n.d.-b). For example, states have the ability to determine the mechanism by which mental health services are reimbursed in FQHCs, whether by payment directly through the Medicaid program, “carving out” these services to other entities such as Medicaid managed care organizations, or some other arrangement (NACHC, 2010b).

Notwithstanding the input by states, the overarching federal law establishes a list of providers who can generate PPS encounters at FQHCs and thus, receive the favorable PPS reimbursement rate (e.g., § 1902(bb) of the Social Security Act; 42 U.S.C. § 1396d(l)(2)(A); 42 U.S.C. § 1395x(aa)(3)(A); 42 C.F.R. § 405.2450; Federally Qualified Health Centers, 2016). For mental health services, the billable providers approved by federal law are psychiatrists, psychologists, and LCSWs, but not LPCs. Because federal law does not expressly include or exclude LPCs, each individual state can determine whether LPCs are also permitted to generate PPS encounters for mental health services at FQHCs in that state. Unfortunately for the counseling profession, the majority of states have chosen to exclude LPCs from PPS reimbursement at FQHCs.

There is insufficient literature related to the reasons for states’ decisions to include or exclude LPCs as billable PPS mental health providers, but it can be assumed
that historic factors related to the counseling profession play a significant role. The professional identity, training standards, clinical practices, and professional advocacy of counselors and social workers are explored in further detail below. The influence of these important professional issues related to billable FQHC mental health provider status under PPS, employment at FQHCs, and mental health workforce shortages at FQHCs is further elaborated.

It should be noted that because of the similarities in training between LPCs and LCSWs, the current study focused only on these two types of mental health professionals employed in FQHCs. Both LPCs and LCSWs can practice independently after obtaining a master’s degree whereas a licensed psychologist or psychiatrist must have a doctorate degree (Dittman, 2016). Although licensed marriage and family therapists must also obtain a master’s degree to practice independently, a decision was made to exclude this type of mental health professional from the current study because the annual reports in the Uniform Data System do not track the employment numbers for marriage and family therapists separately, thus making data related to this mental health profession difficult to collect; the omission of licensed marriage and family therapists is an acknowledged limitation of this study.

**Professional Identity and Training Standards**

In reviewing the histories of the professions of counseling and social work, it is evident that social workers have earned a substantial advantage in solidly establishing their profession many decades before counselors. While there is no literature specifically detailing the history of LPCs’ exclusion from federal PPS regulations, it can be assumed
that this decision is an indirect result of counselors’ delay in establishing professional identity, as evidenced in professional association organization, training standards and state licensure. This delay in establishing the profession of counseling has likely affected other federal reimbursement decisions, such as the Medicare program’s universal reimbursement of LCSWs, but not LPCs. Prior policy determinations (such as the Medicare program) likely served as the precedent for the failure to include LPCs in federal PPS reimbursement regulations (Eriksen, 1997; Myers et al., 2002).

Understanding the histories of the counseling and social work professions provides a context for the current study and underscores the relevance of improved advocacy efforts for the counseling profession.

With roots in the early 1900s vocational guidance movement of Frank Parsons, the American Personnel and Guidance Association was founded in 1952—later to become the American Counseling Association (Neukrug, 2014). In comparison, the American Psychiatric Association was founded in 1844, the American Psychological Association was founded in 1892, and the National Social Workers Exchange (later to become the American Association of Social Workers) was founded in 1917 (American Psychological Association, 2016a; Barker, 1998).

As the newest member of the field of mental health, the profession of counseling has been marked by counselors’ struggle to establish professional identity (Eriksen, 1997; McAuliffe & Eriksen, 1999; Myers et al., 2002). The key tenets of counselor professional identity that have emerged from a vast repository of literature include counselors’ emphasis on: (a) humanism (Hanna & Bemak, 1997; Stone, 1986); (b) a
developmental framework (Mellin, Hunt, & Nichols, 2011; Van Hesteren & Ivey, 1990); (c) multiculturalism (Quinn, 2013; Ratts, Singh, Nassar-McMillan, Butler, & McCullough, 2015); (d) specialties that include career counseling, school counseling, and marriage and family counseling (Myers, 1995); and, (e) wellness and prevention (Mellin et al., 2011; Myers, 1991). The plethora of recent publications related to counselors’ involvement in integrated health care suggest this focus is also a burgeoning component of professional identity for counselors, logically stemming from the profession’s emphasis on wellness (e.g., *Journal of Mental Health Counseling*’s special issue on the topic of integrated care; Hooper, 2014). Given this broad spectrum of components, the consensus definition of counseling finalized as a part of the American Counseling Association’s 20/20 Vision provides further clarification: “Counseling is a professional relationship that empowers diverse individuals, families, and groups to accomplish mental health, wellness, education, and career goals” (Kaplan & Gladding, 2011; Kaplan, Tarvydas, & Gladding, 2014, p. 366).

Founded in 1981, the Council for Accreditation of Counseling & Related Educational Programs (CACREP) was established to set training standards for counselors and is recognized by the Council for Higher Education Accrediting, which provides “assurance to the public and higher education institutions that CACREP is a legitimate accreditor with authority granted by a regulating body who has reviewed the standards, processes, and policies of CACREP” (Council for Accreditation of Counseling & Related Educational Programs, 2014, para. 1). CACREP’s 2016 Standards mandate a minimum of 60 semester credit hours for master’s-level counseling students in all specialties.
beginning July 1, 2020 (until 2020, only 48 semester hours are required). There is also a practicum experience requirement of 100 hours (with 40 hours of direct counseling) and an internship experience requirement of 600 hours (240 hours of direct counseling). The coursework in a CACREP-accredited program must cover a common core consisting of eight areas of curricular experience: (a) professional counseling orientation and ethical practice, (b) social and cultural diversity, (c) human growth and development, (d) career development, (e) counseling and helping relationships, (f) group counseling and group work, (g) assessment and testing, and (h) research and program evaluation (Council for Accreditation of Counseling & Related Educational Programs, 2015). While not all counseling programs are CACREP-accredited, as of 2015, there were 284 CACREP-accredited programs in the emphasis areas of clinical mental health counseling, mental health, and community, producing 7,208 total graduates in 2015 (Council for Accreditation of Counseling & Related Educational Programs, 2016). Although difficult to estimate, the most recent data indicate that there are approximately 120,000 LPCs nationwide (American Counseling Association, 2011).

Although the field of counseling bears many similarities with the field of social work, there are meaningful differences that distinguish the professions. In the 1890s and early 1900s, social work began as a “caring profession” whose purpose was to “address the needs of society and bring our nation’s social problems to the public’s attention” (Barker, 1998; National Association of Social Workers, 2016, para. 1). The specific area of clinical social work (i.e., the focus of the current study) developed to take a “wider perspective and utilize[] a greater range of helping procedures than one-to-one talk
therapies” (Siporin, 1985, p. 193). Clinical social workers emphasize clients’
environmental stressors and assist clients in developing solutions, whether through
accessing governmental services, as in case management, or advocating for change at a
systemic level (Goldstein, 1996; Segal & Baumohl, 1981). The Council on Social Work
Education, the primary accreditation organization for all social work programs including
clinical social work programs, summarizes the field’s mission as follows:

The purpose of the social work profession is to promote human and community
well-being. Guided by a person-in-environment framework, a global perspective,
respect for human diversity, and knowledge based on scientific inquiry, the
purpose of social work is actualized through its quest for social and economic
justice, the prevention of conditions that limit human rights, the elimination of
poverty, and the enhancement of the quality of life for all persons, locally and

Founded in 1952, 31 years before CACREP, the Council on Social Work
Education sets training standards for clinical social workers and is also recognized by the
Although not all social work programs are accredited by this organization, as of June
2016, there were 248 master’s-level social work programs of all types accredited by the
Council on Social Work Education also develops training guidelines for social work
faculty known as the Educational Policy and Accreditation Standards. The 2015
Standards include nine core competencies: (a) demonstrate ethical and professional
behavior, (b) engage diversity and difference in practice, (c) advance human rights and
social, economic, and environmental justice, (d) engage in practice-informed research
and research-informed practice, (e) engage in policy practice, (f) engage with individuals,
families, groups, organizations, and communities, (g) assess individuals, families, groups, organizations, and communities, (h) intervene with individuals, families, groups, organizations, and communities, and (i) evaluate practice with individuals, families, groups, organizations, and communities (Council on Social Work Education, 2015). The 2015 Standards do not explicitly state the number of required credit hours required for accreditation, and programs have the flexibility to develop their own curriculum content and syllabi, as long as their graduates demonstrate competence. A field experience with a minimum of 900 hours is required, but the 2015 Standards do not specify how many hours of direct psychotherapy provision are required (Council on Social Work Education, 2015).

As with LPCs, the licensure requirements for LCSWs vary by state, but generally include graduation from a Council on Social Work Education-accredited program, passing scores on the Social Work Exams administered by the Association of Social Work Boards, and approximately 2,000 to 3,000 hours of post-degree experience over a minimum of 24 months with some level of documented supervision (Association of Social Work Boards, 2015; Vallianatos, 2000). Across states, licensed clinical social workers are also known as registered clinical social workers, licensed certified social workers, and licensed independent social workers. Some states maintain advanced categories for social worker licensure that involve further supervised training and/or a doctoral degree. Although difficult to estimate, a survey of states by Donaldson, Hill, Ferguson, Fogel and Erickson (2014) concluded that there were an estimated 201,368 LCSWs in the U.S. in 2014.
In summary, an estimated 37% of master’s-level mental health professionals (i.e., of the estimated number of LPCs and LCSWs combined—120,000 + 201,368) identify as LPCs whereas 63% of master’s-level mental health professionals identify as LCSWs (American Counseling Association, 2011; Donaldson et al., 2014). It could be argued that the equitable distribution of master’s-level mental health professionals working at FQHCs should mirror these national statistics—approximately 40% LPCs and 60% LCSWs. States, however, vary in their treatment of LPCs in regards to PPS reimbursement at FQHCs. Thus, in the current study, it was hypothesized that in states approving both LPCs and LCSWs to receive PPS reimbursement, the proportion of LPCs employed at FQHCs is approximately equal to these national statistics—equaling .4 (estimated from 37/100). It was hypothesized that in states not approving LPCs to receive PPS reimbursement, the proportion of LPCs employed at FQHCs is lower—equaling .2 (20/100). Literature reviewed in later sections of this chapter illustrates that reimbursement policies do impact employment opportunities, but there are no empirical studies that can be used to estimate an effect size for the proposed study.

It was hypothesized that in states where LPCs do not receive PPS reimbursement, the proportion of LPCs employed at FQHCs is .2 (20/100). Literature reviewed in later sections of this chapter illustrates that reimbursement policies do impact employment opportunities, but there are no empirical studies that can be used to estimate an effect size for the proposed study.

While training for counselors and social workers contains some similar core curriculum requirements, the emphasis on the person-in-environment framework appears
greater in the training of social workers. Counselor training, on the other hand, appears to emphasize skill development towards the practice of individual psychotherapy. There is very little empirical research investigating the professional differences between these two types of mental health providers. A dated survey-based dissertation study of 48 LPCs, 172 LCSWS, and 81 licensed psychologists in Ohio by Albright (1994) confirmed that LPCs reported significantly greater training in counseling and psychotherapy than LCSWs. LCSWs reported greater training in administration and management than LPCs. Both LPCs and LCSWs reported that their respective training programs emphasized the development of clinical skills equally. Given the significant changes in training standards over the past two decades for both professions, more recent empirical research is needed to determine if LPCs and LCSWs are equally prepared for employment at FQHCs. Yet regardless of the similarities and differences between the professional identities and training standards of counselors and social workers, policy decisions related to reimbursement of mental health services are made by lawmakers who are often swayed more by the strength of advocacy efforts (i.e., effective lobbying on behalf of the profession).

Clinical Practices

Aside from billing reimbursement policy, it is also important to consider whether differences or perceived differences in the clinical practices of LPCs and LCSWs may influence FQHC administrators’ decisions to hire either mental health professional type. Although the professional identities and training standards of LPCs and LCSWs do vary in emphasis, this variation has not necessarily resulted in significant differences in
clinical practices and client outcomes. There are, however, very few empirical studies examining this issue. An older survey study of clinical practices in 170 multiservice mental health centers (also affected by Medicaid reimbursement) found that counselors, like psychologists and social workers, provided a variety of clinical services, including assessment services, to a variety of clients with diverse presenting problems (West, Hosie, & Mackey, 1987). Importantly, the authors concluded that due to similarities in clinical practices across the mental health professions, counselors should also be acknowledged in future federal and state mental health legislation as core service providers alongside psychologists and social workers (West et al., 1987).

No other studies of comparisons between LPCs’ and LCSWs’ clinical practices or client outcomes could be identified; clearly, there is a dearth of research illustrating that social workers are more or less effective than counselors in treating clients presenting mental health problems, especially in the setting of FQHCs. Common factors research would suggest that an LPC’s or LCSW’s ability to build therapeutic alliances is a better predictor of efficacy than professional identification, but no studies to this effect could be identified (Wampold et al., 1997). Despite the absence of comparison data, LCSWs have obviously received preferential treatment in federal legislation related to PPS reimbursement as compared to LPCs, and this superior status can most likely be attributed to superior professional advocacy efforts.

**Professional Advocacy**

The efficacy of each mental health field’s professional advocacy efforts is undoubtedly reflected in the federal recognition of LCSWs as billable FQHC mental
health providers under PPS and the absence of federal recognition for LPCs. There is no question that counselors lag behind social workers in professional advocacy successes, despite great strides being made in recent years (Myers et al., 2002). State recognition of licensure is one important indicator of the efficacy of professional advocacy because licensure typically precedes reimbursement. A state licensure law for a given profession “restricts or prohibits the practice of that profession by individuals not meeting state-determined qualification standards, and violators may be subject to legal sanctions such as fines, loss of license to practice, or imprisonment” (American Counseling Association, 2016, para. 2).

Social workers have maintained an organized political advocacy network since the inception of the profession and have been highly visible to the public through work as case managers and mental health professionals within social welfare agencies (Albright, 1994). As such, the first state licensure law for social workers was passed in 1945 in California (Dyeson, 2004). In contrast, the first licensure law for counselors was passed in 1976 in Virginia (Brooks & Gerstein, 1990). Although all 50 states now have licensure laws regulating both LPCs and LCSWs, this 30+-year delay in state licensing recognition appears to have inhibited the growth and status of the counseling profession (American Counseling Association, 2016, para. 2; Brooks & Gerstein, 1990).

Beyond licensure, the breadth of scope of practice laws applicable to mental health professions provides another important indicator of the efficacy of professional advocacy. As outlined in a report developed by the National Conference of State Legislatures (NCSL), the various laws and regulations surrounding scope of practice
include licensure, independent practice authority, education and training standards, and Medicaid payment (Ewing & Hinkley, 2013; NACHC, 2015a). For example, if a counselor in a given state is not permitted to provide clients with diagnoses according to regulations governing counseling scope of practice, then counselors will likely not be reimbursed by the given state’s Medicaid program (because Medicaid typically requires diagnosis for all clients). In 2010, this inequity occurred in New York (NY) when the NY Office of the Professions interpreted the absence of the term “diagnosis” in the state’s counseling scope of practice law as indicating that licensed counselors are ineligible to diagnose clients (Kassirer et al., 2013). In a survey of 22 NY clinic directors and 23 licensed counselors, nine clinic directors reported obstacles to hiring licensed counselors relating to regulatory limitations, including the inability to diagnose and problems with third-party reimbursement (Kassirer et al., 2013). One clinic director commented, “Until the scope of practice issues are equalized with social workers, [licensed counselors] will probably not be our first choice” (Kassirer et al., 2013, p. 368). Counselors also expressed frustration with these regulations, with one stating, “The limitations on insurance reimbursement force me to see only cash paying clients,” and another stating, “I can’t even get a job in this city” (Kassirer et al., 2013, p. 369). Related to hiring decisions, clinic directors voiced support for the premise that licensed counselors were equally qualified to work within their clinics and one shared, “I continue to be baffled regarding the perception that [licensed counselors] are inferior in their skill set to [LCSWs]…We continue to hire based on best candidate, not degree” (Kassirer et al., 2013, p. 369).
Counseling advocacy literature suggests that additional targeted research could support the profession’s efforts to achieve the same level of professional recognition already attained in the field of social work. Chi Sigma Iota’s framework for advocacy emphasizes the important role of research, with its purpose to “promote professional counselors and the services they provide based on scientifically sound research” (Chi Sigma Iota, 1998, para. 16). Certainly the current study is relevant to counseling advocacy efforts because it is targeted to address counselor employment at FQHCs utilizing causal and correlational methodologies.

Myers et al. (2002) further outlined counselor advocacy initiatives that include promoting “the public image of counseling with an emphasis on intraprofessional as well as interprofessional activities” and collaborating at the “local, state, national, and international levels” on “issues of concern to the profession and our clients” (p. 398). The current study sought to explore LPCs’ employment in the integrated care setting of FQHCs (an issue with intertwined state and national policies). Counselors working at FQHCs are engaging daily in “interprofessional activities” while serving clients alongside other health professionals (Myers et al., 2002, p. 398). Myers et al. (2002) also noted that counselor professional advocacy and advocacy for clients can, unfortunately, appear at odds. In the current study, however, the interests of the counseling profession and clients seeking mental health services were in alignment. A documented relationship between PPS reimbursement status and LPC employment opportunities may be used to advocate to lawmakers on behalf of clients seeking mental health services at FQHCs with mental health workforce shortages and on behalf of counselors seeking employment at
FQHCs (see section below entitled “Mental Health Workforce Shortages at Federally Qualified Health Centers”).

**Licensed Professional Counselors’ and Licensed Clinical Social Workers’ Employment at Federally Qualified Health Centers**

Most likely influenced by the lack of federal or widespread state recognition as billable FQHC mental health providers under PPS, LPCs have struggled to earn professional recognition for substantial work in FQHCs. As previously explained, LPCs are not considered billable mental health providers under PPS at FQHCs in the majority of states and federal law omits their inclusion (e.g., § 1902(bb) of the Social Security Act; 42 U.S.C. § 1396d(l)(2)(A); 42 U.S.C. § 1395x(aa)(3)(A); 42 C.F.R. § 405.2450; NACHC, 2015a, 2015b). The preferential status of LCSWs is reflected in the annual reports submitted by FQHCs; FQHCs must annually report the number of LCSWs working at the delivery site but there is no separate category for reporting LPC employment. Instead the Uniform Data System contains a general reporting category for “other licensed mental health providers;” a catchall that encompasses licensed counselors, marriage and family therapists, and nurses trained in mental health (BPHC, 2014).

Similar to LCSWs, licensed psychologists have received their own reporting category despite evidence that the profession comprises a relatively small number of mental health FTEs at FQHCs. For example, a 2012 Virginia survey of community health centers identified that community health centers are most likely to employ LCSWs (65%) or LPCs (50%) whereas only 30% of community health centers employed licensed clinical psychologists (Virginia Health Care Foundation, 2013). A 2010 nationwide survey of
FQHCs identified that social workers comprised 31% of total mental health FTEs, as compared to 21% for counselors and 8.6% for psychologists (Lardiere et al., 2011). The low percentage of psychologists was attributed to the American Psychological Association’s requirement that a licensed, accredited psychologist supervises at FQHC internship sites. This survey also revealed that 34.5% of FQHCs serve as training sites for social workers as compared to 13.5% for professional counselors and 13.2% for psychologists (Lardiere et al., 2011).

Although these studies have documented that a greater percentage of LCSWs than LPCs are employed at FQHCs (Lardiere et al., 2011; Virginia Health Care Foundation, 2013), whether there is a statistical relationship between billable FQHC mental health provider status under PPS and employment at FQHCs has yet to be empirically established. The 2012 Virginia survey of community health centers identified that community health center administrators preferred (in order of priority) to hire a mental health professional with these attributes: the broadest scope of practice (90%), highest level of third-party payment for services (55%), least amount of supervision required (55%), most affordable salary (55%), and availability in the service area (35%; Virginia Health Care Foundation, 2013). Additionally, Virginia community health centers reported that insurance payment and credentialing issues occurred most frequently with psychiatric-mental health nurse practitioners (22% of community health centers), LPCs (20% of community health centers), and clinical psychologists (17% of community health centers). Little else has been written about the decisions of LPCs or LCSWs to seek employment at FQHCs or the decisions of FQHC administrators to hire LPCs or
LCSWs. While caution is warranted when interpreting the results of the current study, the previously discussed studies suggest that hiring decisions at FQHCs have been based on numerous factors, and the influence of billable provider status under PPS cannot be underestimated.

**Mental Health Workforce Shortages at Federally Qualified Health Centers**

Maintaining a strong, multidisciplinary workforce is an essential component of FQHCs’ successful ability to serve the expanding patient population predicted as a result of the ACA (NACHC, 2016b). Currently, FQHCs employ approximately 170,000 individuals nationwide, and health centers have added more than 38,000 jobs over the past five years 2010 to 2015 (BPHC, n.d.). In 2013, mental health staff comprised 7% of these FTEs (NACHC, 2015a). Due to the expansion in job postings in the past five years, FQHCs have encountered continued mental health workforce shortages, especially as the emphasis on PCMH increases (i.e., even more mental health providers will be needed). The NACHC has published extensively on this issue and has found that 56% of health centers report experiencing at least one behavioral health vacancy (NACHC, 2016b). While family physicians rate as the most highly prioritized clinical positions needed, behavioral health specialists constitute the next highest priority positions (NACHC, 2016b).

The workforce shortages facing FQHCs relate to the heavy competition for qualified staff, the inability to provide comparable salaries/benefits packages, and FQHCs’ locations in less desirable isolated or impoverished communities (NACHC, 2016b). Some FQHCs also report challenges with recruiting candidates who have
proficient language skills and/or cultural competencies (NACHC, 2016b). The National Health Services Corps provides scholarships and loan repayment to clinicians (including counselors) who commit to serving communities designated by the HHS as Health Professional Shortage Areas, thereby seeking to ease the recruitment burdens of FQHCs (NACHC, 2016b). As of 2015, 37% of participants in the National Health Services Corps identified as LCSWs, 20% identified as marriage and family therapists, and 16% identified as LPCs (NACHC, 2016b).

State-level strategies for addressing workforce shortages have been proposed because each state differs in terms of FQHC capacity, reimbursement policies, support for FQHCs, and demand for primary care services (NACHC, 2015a). For example, one study found that the highest rates of uninsured were correlated with the lowest primary care capacity and, as a result, those states facing the greatest increase in Medicaid patients due to Medicaid expansion also faced the greatest difficulties in meeting demand for basic health services (Ku, Jones, Shin, Bruen, & Hayes, 2011). To increase primary care capacity, recommended state-level strategies include expanding scope of practice laws and reimbursement options for FQHC providers. A National Academy for State Health Policy report identified two relevant issues that “exacerbate the strain” on so-called “safety net” providers (i.e., FQHC employees): (a) provider scope of practice policies may limit the reach of the existing workforce; and, (b) reimbursement policies restrict who can provide care (Witgert & Hess, 2012, p. 2).

The approval of LPCs as mental health providers under PPS in more states or even more effective, the universal inclusion of LPCs on the federal level in both
Medicaid and Medicare programs could reduce the prevalence of mental health workforce shortages at FQHCs. The current study sought to identify an empirical relationship between LPCs’ and LCSWs’ PPS status and employment at FQHCs. This information could be utilized to advocate for counselors’ inclusion under PPS with the mutually beneficial goals of increasing employment opportunities for LPCs, improving available mental health care for clients, and reducing mental health workforce shortages at FQHCs.

**Conclusion**

As described in Chapter II, the literature supports the hypothesized chain of events: (a) starting on January 1, 2014, Medicaid expansion states substantially increased the number of individuals covered by Medicaid insurance plans, such plans including mental health benefits, compared with Medicaid enrollment numbers in non-Medicaid expansion states; Sommers et al., 2015); and (b) individuals with Medicaid mental health insurance benefits were likely to seek mental health services at FQHCs (Han et al., 2015), especially as FQHCs are becoming recognized as “providers of choice,” more FQHCs are designated as patient-centered medical homes (i.e., providing integrated medical and mental health services on-site), and FQHCs are more able to expand mental health service capacity with increased ACA funding (NACHC, 2014c; Pourat & Hadler, 2014, p. 1-2).

There is no prior literature, however, that explicitly concludes that FQHCs in Medicaid expansion states experienced significantly higher rates of change in the number of mental health visits and the number of FTE mental health staff as compared to FQHCs
in non-Medicaid expansion states for the relevant time periods of 2012-2013 (pre-Medicaid expansion) and 2014-2015 (post-Medicaid expansion). Neither is there specific literature concerning the current study’s hypothesized relationship between PPS billable provider status and counselor employment at FQHCs. The current study sought to establish whether FQHCs in Medicaid expansion states did, in fact, experience significantly higher rates of change in the number of mental health visits and the number of FTE mental health staff as compared to FQHCs in non-Medicaid expansion states. Furthermore, the current study sought to establish whether there is a relationship between PPS billable provider status and counselor versus social worker employment at FQHCs. The next chapter, Chapter III, provides a more detailed description of the methodology towards achieving these purposes.
CHAPTER III

METHODOLOGY

Introduction

In this chapter, the methodology and design of the full study are detailed with the intent of fulfilling the three stated purposes: (a) to test the causal impact of Medicaid expansion on the number of mental health visits at FQHCs; (b) to test the causal impact of Medicaid expansion on the number of FTE mental health staff employed by FQHCs; and, (c) to explore the relationship between the inclusion of LPCs as billable providers under PPS and the proportion of LPCs employed at FQHCs.

The count model difference-in-differences method for the quasi-experimental study (Research Questions One and Two) is described, followed by an explanation of the two-sample test of proportions method for the correlational study (Research Question Three). Included in each of the design sections is a complete explanation of sampling strategy, instrumentation, research questions, hypotheses, and analytic strategies.

Quasi-Experimental Study: Count Model
Difference-in-Differences Analyses

Research Questions One and Two comprised the quasi-experimental portion of the study and are fully described in Table 1. A Poisson count model difference-in-differences analysis was used to calculate the effect of Medicaid expansion on the number of FQHC mental health visits by comparing the rate of change in this mental health outcome variable for FQHCs in states expanding Medicaid and states not
expanding Medicaid. A Gamma count model difference-in-differences analysis was used to calculate the effect of Medicaid expansion on the number of FQHC FTE mental health staff by comparing the rate of change in this mental health outcome variable for FQHCs in states expanding Medicaid and states not expanding Medicaid.

Table 1

Research Questions One and Two Summaries

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of Groups</th>
<th>Data Type</th>
<th>Data Source</th>
<th>Response Range</th>
<th>Analytic Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of FQHC mental health visits (outcome)</td>
<td>Two: (a) Medicaid expansion states (treatment group); and, (b) non-Medicaid expansion (control group)</td>
<td>Ordinal, integer count data</td>
<td>Uniform Data System for 2012-2013 and 2014-2015, Table 5A, 20b, “Staffing and Utilization—Total Mental Health Services, Clinic Visits”</td>
<td>152 - 977,293</td>
<td>Poisson count model difference-in-differences</td>
</tr>
<tr>
<td>Number of FQHC FTE mental health staff (outcome)</td>
<td>Two: (a) Medicaid expansion states (treatment group); and, (b) non-Medicaid expansion states (control group)</td>
<td>Continuous, decimal count data</td>
<td>Uniform Data System for 2012-2013 and 2014-2015, Table 5A, 20a, “Staffing and Utilization—Total Mental Health Services, FTEs”</td>
<td>.63 - 1,083.16</td>
<td>Gamma count model difference-in-differences</td>
</tr>
</tbody>
</table>
Count Model Difference-in-Differences Analysis Strategy

A major health care reform policy change occurred on January 1, 2014, related to Medicare expansion that created the discontinuity or cutoff point necessary for the count model difference-in-differences strategy used in this study. States had the option to expand or not expand their Medicaid populations beginning on January 1, 2014, and this naturally occurring event was the foundation for the quasi-experimental design. Implementation of Medicaid expansion essentially assigned individual FQHCs to a treatment group (Medicaid expansion states) or a control group (non-Medicaid expansion states) depending on the location of the FQHC (Murnane & Willett, 2011). Most states enacted Medicaid expansion on the effective date, January 1, 2014, but some states elected not to implement the new reform policy. This structure can be described as the “exogenous differences in policies across geographical jurisdictions at the same point in time” which “assigns individuals or organizations randomly to different policies based on their location” (Murnane & Willett, 2011, p. 149). Thus, there is a clear discontinuity or cutoff point that separates individual FQHCs providing mental health services and hiring mental health staff into a treatment group (Medicaid expansion states) or control group (non-Medicaid expansion states; Murnane & Willett, 2011, p. 149).

Although FQHCs in this study were not randomly assigned to treatment or control groups as in a true experimental design, it is still possible to draw causal inferences by using a difference-in-differences analysis (Murnane & Willett, 2011). In a difference-in-differences design, the differences in a variable of interest are measured before and after the selected cutoff point for the treatment group (i.e., calculating the first difference).
Then, the differences in the variable of interest are measured before and after the selected cutoff point for the control group (i.e., calculating the second difference). Lastly, the second difference is subtracted from the first difference and compared to the t-statistic to determine if there is a significant effect of the cutoff point on the variable of interest (Murnane & Willett, 2011).

In the current study, two years of data related to the outcome variables (the number of mental health visits and the number of FTE mental health staff) were employed before Medicaid expansion (2012-2013) and two years of data were employed after Medicaid expansion (2014-2015); thus, a mixed model that encompassed a difference-in-differences design was proposed for the study. The mixed model approach was selected because there were certain fixed effects (e.g., known elements such as the date of the Medicaid expansion and the states’ decisions to expand Medicaid) and certain random effects (e.g., unknown elements such as the change in FQHC mental health visits and FTE mental health staff). The mixed model accounted for the random intercepts and random slopes naturally resulting from the available repeated measures data (e.g., the number of mental health visits and FTE mental health staff will always be higher in Texas as compared to Rhode Island in the years 2012, 2013, 2014, and 2015, and, the rates of change will be different between the states). Overall, the mixed model approach was the better fit because the design accounted for these repeated measures data. This was necessary since the outcome variables (the number of mental health visits and FTE mental health staff) were measured over time (in years 2012, 2013, 2014, and 2015) for
the treatment group of states and the control group of states and trends over time were observed.

In addition, because the number of mental health visits and the number of FTE mental health staff constituted count data, count models were used to answer Research Questions One and Two—a Poisson count model for Research Question One and a Gamma count model for Research Question Two. For the purposes of the current study, the models are essentially similar, but depend on the types of data input, whether positive integers (Poisson count model) or positive non-integers (Gamma count model; Cameron & Trivedi, 2013; Davidian, 2005). The number of mental health visits is reported to the Uniform Data System in integer form, while the number of FTE mental health staff can include two decimal places (e.g., 2.75 FTEs).

The count models accounted for the non-normal distribution of the data, which was evident in the results of the Shapiro-Wilk test of normality for the number of mental health visits and FTE mental health staff (see Chapter IV). A Poisson count model assumes that the data take a Poisson distribution, instead of a normal distribution, and this was a better fit for the data because the possible range of results was positively-skewed and discrete (instead of continuous as in a normal distribution). The Poisson distribution conveys the probability of a given number of events (e.g., the number of FQHC mental health visits) occurring in a fixed interval of time (e.g., 2012, 2013, 2014, 2015) if these events occur with a known average rate and independently of the time since the last event (Rodríguez, 2007).
Sampling Strategy

As noted in Chapter II, all FQHCs are required to report specific data (including the number of mental health visits and FTE mental health staff) to the Uniform Data System annually in order to maintain the FQHC distinction and receive enhanced PPS reimbursement and federal funding (BPHC, 2014; see section below entitled “Instrumentation: The Uniform Data System”). In 2012, there were 1,198 FQHCs that reported to the Uniform Data System; in 2013, there were 1,202 reporting FQHCs; in 2014, there were 1,278 reporting FQHCs; and, in 2015, there were 1,375 reporting FQHCs. These data from all reporting FQHCs are aggregated at the state and national level and are publicly accessible on the website of the U.S. Department of Health & Human Services (HHS), Health Resources & Services Administration (HRSA), Bureau of Primary Health Care (BPHC), Health Center Program (2012, 2013, 2014, 2015). For Research Questions One and Two, Uniform Data System state-level data tracking the number of mental health visits and the number of FTE mental health staff at FQHCs for the years 2012-2013 (pre-Medicaid expansion) and 2014-2015 (post-Medicaid expansion) were utilized in the count model difference-in-differences strategy.

The sampling strategy for the quasi-experimental design first entailed separating the states into two groups: (a) Medicaid expansion states, and (b) non-Medicaid expansion states. States that expanded Medicaid on January 1, 2014, were considered the treatment group in the causal comparison. Those states that did not expand Medicaid constituted the control group. The accessible population or sampling frame consisted of the 43 states identified for inclusion in the study (see Table 2, “Medicaid Expansion
States” and Table 3, “Non-Medicaid Expansion States”) within the temporal limits of the years 2012 through 2015 (Hutchinson, 2014). For Research Questions One and Two, the sampling frame was equivalent to the actual sample utilized (Hutchinson, 2014). The target population (i.e., the population to which this study can be generalized) consisted of states expanding Medicaid (the states implementing the new policy), in addition to states expanding Medicaid in the future (Hutchinson, 2014). This study can be generalized to states in future years as legislatures grapple with the issue of whether to extend Medicaid coverage.

**Treatment group: Medicaid expansion states.** Thirty-two states have expanded their Medicaid programs under the ACA, some as recently as July 1, 2016 (Louisiana), but this study included only 25 Medicaid expansion states, the states expanding on January 1, 2014 (The Henry J. Kaiser Family Foundation, 2016). The seven states that expanded Medicaid after January 1, 2014, were excluded from this study because the annual reports submitted by FQHCs reflect data from January 1 to December 31. Including data from states expanding Medicaid after the initial effective date of January 1, 2014, would likely dilute the potential effect of Medicaid expansion on the number of mental health visits and FTE mental health staff. Thus, there were a total of 25 states in the treatment group labeled “Medicaid expansion states” (see Table 2).
### Table 2

**Medicaid Expansion States**

<table>
<thead>
<tr>
<th>State Number</th>
<th>State Name</th>
<th>Date of Medicaid Expansion</th>
<th>Included in Analysis</th>
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</tr>
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<tr>
<td>3</td>
<td>California</td>
<td>1/1/2014</td>
<td>YES</td>
</tr>
<tr>
<td>4</td>
<td>Colorado</td>
<td>1/1/2014</td>
<td>YES</td>
</tr>
<tr>
<td>5</td>
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<tr>
<td>6</td>
<td>Delaware</td>
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<tr>
<td>7</td>
<td>District of Columbia</td>
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<td>YES</td>
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<td>8</td>
<td>Hawaii</td>
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<td>8/15/2014</td>
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</tr>
<tr>
<td>16</td>
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</tr>
<tr>
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<tr>
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<td>1/1/2014</td>
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<td>1/1/2014</td>
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</tr>
<tr>
<td>25</td>
<td>West Virginia</td>
<td>1/1/2014</td>
<td>YES</td>
</tr>
</tbody>
</table>

**Control group: Non-Medicaid expansion states.** The 18 states not expanding Medicaid were considered the control group in the causal comparison and were placed in the analysis group labeled in Table 3, “Non-Medicaid Expansion States” (The Henry J.
Kaiser Family Foundation, 2016). Because Wisconsin offers such generous Medicaid coverage for individual adults (who are not parents of dependent children) and for parents at up to 100% of the Federal Poverty Level, even without Medicaid expansion, as compared to all other non-Medicaid expansion states offering no Medicaid coverage to individual adults, this state was removed from the analysis since its inclusion could potentially confound the effects for the remaining states not expanding Medicaid (The Henry J. Kaiser Family Foundation, 2016).

Table 3

*Non-Medicaid Expansion States*

<table>
<thead>
<tr>
<th>State Number</th>
<th>State</th>
<th>Included in Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alabama</td>
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</tr>
<tr>
<td>2</td>
<td>Florida</td>
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</tr>
<tr>
<td>3</td>
<td>Georgia</td>
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</tr>
<tr>
<td>4</td>
<td>Idaho</td>
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</tr>
<tr>
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<td>Kansas</td>
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</tr>
<tr>
<td>6</td>
<td>Maine</td>
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</tr>
<tr>
<td>7</td>
<td>Mississippi</td>
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<tr>
<td>8</td>
<td>Missouri</td>
<td>YES</td>
</tr>
<tr>
<td>9</td>
<td>Nebraska</td>
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<tr>
<td>10</td>
<td>North Carolina</td>
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<td>12</td>
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<td>18</td>
<td>Wyoming</td>
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</table>

In total, there were 25 Medicaid expansion states (the treatment group) and 18 non-Medicaid expansion states (the control group) included in the current study. Uniform Data System data for the years 2012-2013 (pre-Medicaid expansion) and 2014-
2015 (post-Medicaid expansion) regarding the number of FQHC mental health visits and the number of FTE mental health staff were gathered for the two groups of states. Lastly, a difference-in-differences analysis was performed to compare the 2012-2013 data to the 2014-2015 data between the Medicaid expansion states and the non-Medicaid expansion states (see section below entitled “Analytic Strategies”).

**Instrumentation: The Uniform Data System**

Research Questions One and Two utilized FQHC annual Uniform Data System reports aggregated at the state level for years 2012-2013 and 2014-2015. These data are collected and reviewed annually in order to “ensure compliance with legislative and regulatory requirements, improve health center performance and operations, and report overall program accomplishments” (BPHC, 2015, p. 11). FQHCs are provided with annual manuals that contain instructions for completing the reports; the 2015 Uniform Data System manual, for example, required FQHCs to complete the annual calendar year Uniform Data System Report (i.e., January 1 through December 31) by February 15, 2016 (BPHC, 2015, p. 11). The aggregated annual reports for 2015 (state and national level) are typically made available to the public in the early fall the following year; for example, the 2015 Uniform Data System reports aggregated at the state and national level were made available in the early fall of 2016.

The Uniform Data System reports consist of 12 tables designed to produce consistent clinical, administrative, operational, and financial data that can be collated with national and state data and over time. The information relevant to the current study was found in Table 5 for years 2012-2015, which included the data on mental health
visits and staff (BPHC, 2015, p. 13). The two variables of interest (the number of mental health visits and FTE mental health staff) are described below based on the definitions provided in the annual Uniform Data System manual. While the Uniform Data System manual strives to provide detailed instructions for all relevant terms and calculations, there is also administrative support available through the BPHC, including frequent webinars and support staff available via email or telephone, and relevant contact information is listed at the conclusion of the Uniform Data System manual. The Uniform Data System manual, in conjunction with this supplementary support, promotes the consistency of reported data across FQHCs in various states.

**Mental health visits.** The number of mental health visits was found in the Uniform Data System’s Table 5A, 20b, “Staffing and Utilization—Total Mental Health Services.” This is a count of documented, face-to-face interactions between a licensed or unlicensed (e.g., interns) mental health care provider and a client. The 2015 Uniform Data System manual provides the following as examples of mental health services that can be counted as visits: “services of a psychiatric, psychological, psychosocial, or crisis intervention nature,” while explicitly stating that substance abuse treatment is categorized as a different type of visit (BPHC, 2015, p. 21). Fundamental to the definition of a visit is also that the provider “exercises independent, professional judgment in the provision of services to the patient,” and the services are recorded in a patient file within the FQHC (BPHC, 2015, p. 17).

The strengths of utilizing this data collection method for the study is the clear delineation of *mental health visits* as defined separately from *substance abuse visits* in the
Uniform Data System, and this study focused solely on mental health visits (BPHC, 2015). An additional strength of this data collection method is that the Uniform Data System manual definitions of mental health visits and FTE mental health staff have remained substantially the same during the years of interest (i.e., 2012, 2013, 2014, and 2015).

**Full-time equivalent mental health staff.** The number of FTE mental health staff was found in the Uniform Data System’s Table 5A, 20a, “Staffing and Utilization—Total Mental Health Services, FTEs.” According to the 2015 Uniform Data System manual, each agency defines the number of hours necessary for “full-time” work and may define it differently for different positions (BPHC, 2015, p. 24). In general, one full-time equivalent (i.e., FTE = 1.0) represents “staff who individually or as a group work the equivalent of full-time for one year” (BPHC, 2015, p. 24). However, the FTE calculation can be adjusted for part-time employment; for example, an employee who works 20 hours per week would generally be reported as 0.5 FTE. In the current study, the number of FTE mental health staff was the summed total FTEs for all mental health staff employed at FQHCs in the states previously outlined. In the Uniform Data System, the mental health staff are counted in five professional categories: (a) psychiatrists, (b) licensed clinical psychologists, (c) LCSWs, (d) other licensed mental health providers, such as LPCs, and, (e) other mental health staff (BPHC, 2015, p. 55).

Regarding contracted mental health care (i.e., mental health services that must be paid for by the FQHC), the 2015 Uniform Data System manual states that contracted employees are included in the FTE total only if the contract is for a portion of an FTE
(e.g., one day a week = .2 FTE). Contracted mental health providers are not included in
the FTE total if the contract with the provider is for a service (e.g., $50 per mental health
visit; p. 169). Regardless of whether the mental health provider is counted in the FTE
total, the mental health visit with the mental health provider is always counted (BPHC,
2015, p. 169). Regarding paid mental health staff interns (e.g., counselors working
towards licensure), the 2015 Uniform Data System manual states that FTEs should be
calculated like those of any other mental health employee. Mental health interns with no
independent licensure (e.g., counseling student interns) are excluded from the definition
of FTE mental health staff (BPHC, 2015, p. 68).

**Analytic Strategies for the Quasi-Experimental Study: Research Question One**

For this research question, a Poisson count model difference-in-differences
analysis was performed that compared the 2013-2013 to the 2014-2015 number of FQHC
mental health visits in the two groups of states: (a) Medicaid expansion states; and, (b)
non-Medicaid expansion states. The formula was as follows:

\[
\ln(\mu_{ijt}) = \beta_0 + \beta_1 t_t + \beta_2 G_j + \beta_3 I_t + \beta_4 G_j I_t + \beta_5 t_t G_j + \beta_6 t_t I_t + \beta_7 t_t G_j I_t + u_{0i} + u_{1i} t_t
\]

Where \(G_j\) represented group membership (e.g., equal to a dummy variable of 0 for non-
Medicaid expansion states and a dummy variable of 1 for Medicaid expansion states); \(I_t\)
was an indicator of the year of Medicaid expansion (e.g., equal to a dummy variable of 0
for years 2012 and 2013 and a dummy variable of 1 for years 2014 and 2015); and, \(t_t\)
was a measure of time (e.g., equal to -2 for the year 2012, -1 for the year 2013, 0 for the year 2014, and 1 for the year 2015); and,
Where $\beta_0$ represented the intercept or the number of FQHC mental health visits in 2012 for non-Medicaid expansion states; $\beta_1$ represented the un-exponentiated estimated multiplicative rate of change (i.e., the slope) in the number of mental health visits in non-Medicaid expansion states in 2012-2013 (i.e., before Medicaid expansion); $\beta_2$ represented the un-exponentiated estimated multiplicative difference prior to Medicaid expansion in the number of mental health visits between Medicaid expansion states and non-Medicaid expansion states; $\beta_3$ represented the un-exponentiated estimated multiplicative change in the number of mental health visits in non-Medicaid expansion states from 2012-13 to 2014-15; $\beta_4$ represented the required adjustment for Medicaid expansion states to the un-exponentiated multiplicative change in the number of mental health visits from pre-Medicaid expansion (2012-2013) to post-Medicaid expansion (2014, the start of Medicaid expansion) in non-Medicaid expansion states (an important difference-in-differences coefficient of interest); $\beta_5$ represented the adjustment to the rate of change (in the number of mental health visits) in Medicaid expansion states in 2012-2013 (i.e., before Medicaid expansion), as compared to non-Medicaid expansion states; $\beta_6$ represented the un-exponentiated estimated multiplicative change in the rate of change in the number of mental health visits for non-Medicaid expansion states from 2012-13 to 2014-15; $\beta_7$ represented the required adjustment for Medicaid expansion states to the un-exponentiated multiplicative yearly rate of change in the number of mental health visits from pre-Medicaid expansion to post-Medicaid expansion in non-Medicaid expansion.
states (the primary difference-in-differences coefficient of interest); \( u_{0t} \) captured the average variation in the number of mental health visits between states; and, \( u_{1t}t_t \) captured the average variation in the rate of change of mental health visits between states.

The G*Power program (version 3.1.9.2) was utilized to perform an a priori power analysis in order to determine whether the number of selected states would provide sufficient statistical power in the current study. It is important to note that “a major obstacle to power analysis is that standard methods are suitable for only the simplest statistical analyses” (Johnson, Barry, Ferguson, & Müller, 2015, p. 134). Faul, Erdfelder, Lang, and Buchner (2007) concluded that neither random effects nor count data are adequately addressed with the G*Power program. These caveats should be considered when interpreting the results of the a priori power analysis.

The a priori t-test for a two-tailed linear multiple regression was performed utilizing the following parameters: (a) a medium effect size \( f^2 = .15; \) Cohen, 1988); (b) \( \alpha = .025; \) (c) statistical power = .8; and, (d) two predictors. The reason that alpha was equal to .025 instead of .05 in this a priori test was because the G*Power program is currently unable to modify its output based on two predictors being tested, as opposed to one predictor. In this case, the two predictors/coefficients of interest were \( \beta_4 \) and \( \beta_7 \) as described in the formula above. This correction to alpha increased the necessary sample size in an attempt to account for this issue.

This a priori power analysis demonstrated that the necessary total sample size to achieve a medium effect size and a statistical power of .8 was 66 states, resulting in a critical \( t \) of 2.30 and 63 degrees of freedom. In the current study, four years of data
(2012-2015) were utilized for Medicaid expansion states and non-Medicaid expansion states, which resulted in a total sample size of 172 (i.e., 25 Medicaid expansion states plus 18 non-Medicaid expansion states times 4 years). It is evident that the sample size of the current study (172) was sufficiently greater than 66. In addition, ultimately, these Poisson count model in the current study was more efficient than the linear multiple regression estimated by the G*Power program because this program assumed that these data were normally distributed. Thus, the actual sample size of states needed for adequate statistical power in the current study was likely fewer than the number predicted by the G*Power program.

In conclusion, the model estimated the coefficients $\beta_4$ and $\beta_7$ to answer Research Question One. To determine if the current study had practical significance, the model’s estimates of the number of mental health visits and the statistical significance were further examined. The findings are presented in detail in Chapter IV, and their implications are discussed in detail in Chapter V.

Analytic Strategies for the Quasi-Experimental Study: Research Question Two

For Research Question Two, a Gamma count model difference-in-differences analysis was performed that compared the 2013-2013 to the 2014-2015 number of FQHC FTE mental health staff in the two groups of states: (a) Medicaid expansion states; and, (b) non-Medicaid expansion states. The formula was as follows:
\[
\ln (\mu_{lt}) = \beta_0 + \beta_1 t_t + \beta_2 G_j + \beta_3 l_t + \beta_4 G_j l_t + \beta_5 t_t G_j + \beta_6 t_t l_t + \beta_7 t_t G_j l_t + u_{0t} + u_{1t} t_t
\]

Where \( G_j \) represented group membership (e.g., equal to a dummy variable of 0 for non-Medicaid expansion states and a dummy variable of 1 for Medicaid expansion states); \( l_t \) was an indicator of the year of Medicaid expansion (e.g., equal to a dummy variable of 0 for years 2012 and 2013 and a dummy variable of 1 for years 2014 and 2015); and, \( t_t \) was a measure of time (e.g., equal to -2 for the year 2012, -1 for the year 2013, 0 for the year 2014, and 1 for the year 2015); and,

Where \( \beta_0 \) represented the intercept or the number of FQHC FTE mental health staff in 2012 for non-Medicaid expansion states; \( \beta_1 \) represented the un-exponentiated estimated multiplicative rate of change (i.e., the slope) in the number of FTE mental health staff in non-Medicaid expansion states in 2012-2013 (i.e., before Medicaid expansion); \( \beta_2 \) represented the un-exponentiated estimated multiplicative difference prior to Medicaid expansion in the number of FTE mental health staff between Medicaid expansion states and non-Medicaid expansion states; \( \beta_3 \) represented the un-exponentiated estimated multiplicative change in the number of FTE mental health staff in non-Medicaid expansion states from 2012-13 to 2014-15; \( \beta_4 \) represented the required adjustment for Medicaid expansion states to the un-exponentiated multiplicative change in the number of FTE mental health staff from pre-Medicaid expansion (2012-2013) to post-Medicaid expansion (2014, the start of Medicaid expansion) in non-Medicaid expansion states (an important difference-in-differences coefficient of interest); \( \beta_5 \) represented the adjustment...
to the rate of change (in the number of FTE mental health staff) in Medicaid expansion states in 2012-2013 (i.e., before Medicaid expansion), as compared to non-Medicaid expansion states; $\beta_6$ represented the un-exponentiated estimated multiplicative change in the rate of change in the number of FTE mental health staff for non-Medicaid expansion states from 2012-13 to 2014-15; $\beta_7$ represented the required adjustment for Medicaid expansion states to the un-exponentiated multiplicative yearly rate of change in the number of FTE mental health staff from pre-Medicaid expansion to post-Medicaid expansion in non-Medicaid expansion states (the primary difference-in-differences coefficient of interest); $u_{0i}$ captured the average variation in the number of FTE mental health staff between states; and, $u_{1i}t_\ell$ captured the average variation in the rate of change of FTE mental health staff between states.

As with Research Question One, the G*Power program (version 3.1.9.2) was utilized to perform an a priori power analysis in order to determine whether the number of selected states would provide sufficient statistical power in the current study. It is important to note the same caveats regarding the G*Power program applied to this a priori test for Research Question Two (Faul et al., 2007; Johnson et al., 2015).

The a priori t-test for a two-tailed linear multiple regression was performed utilizing the following parameters: (a) a medium effect size ($f^2 = .15$; Cohen, 1988); (b) $\alpha = .025$; (c) statistical power = .8; and, (d) two predictors. The reason that alpha was equal to .025 instead of .05 in this a priori test was because the G*Power program is currently unable to modify its output based on two predictors being tested, as opposed to one predictor. In this case, the two predictors/coefficients of interest were $\beta_4$ and $\beta_7$ as
described in the formula above. This correction to alpha increased the necessary sample size in an attempt to account for this issue.

This a priori power analysis demonstrated that the necessary total sample size to achieve a medium effect size and a statistical power of .8 was 66 states, resulting in a critical \( t \) of 2.30 and 63 degrees of freedom. In the current study, four years of data were utilized for Medicaid expansion states and non-Medicaid expansion states, which resulted in a total sample size of 172 (i.e., 25 Medicaid expansion states plus 18 non-Medicaid expansion states times 4 years). It is evident that the sample size (172) of the current study was sufficiently greater than 66. In addition, as with Research Question One, ultimately, the Gamma count model in the current study was more efficient than the linear multiple regression estimated by the G*Power program because this program assumed that the data were normally distributed. Thus, the actual sample size of states needed for adequate statistical power in the current study was likely fewer than the number predicted by the G*Power program.

The model estimated the coefficients \( \beta_4 \) and \( \beta_7 \) to answer Research Question Two. To determine if the current study had practical significance, the model’s estimates of the number of FTE mental health staff and the statistical significance were further examined. As with Research Question One, the findings are presented in detail in Chapter IV, and their implications are discussed in Chapter V.

In summary, the methods described above served to: (a) test the causal impact of Medicaid expansion on the number of FQHC mental health visits; and, (b) test the causal impact of Medicaid expansion on the number of FQHC FTE mental health staff.
Correlational Study: Survey and Two-Sample Test of Proportions

Research Question Three comprised the correlational portion of the study and is fully described in Table 4. A two-sample test of proportions compared LPC and LCSW employment in the four randomly selected Medicaid expansion states where LPCs and LCSWs can generate PPS encounters (Illinois, Ohio, Oregon, and Washington) versus the nine randomly selected Medicaid expansion states where LCSWs, but not LPCs, can generate PPS encounters (Arkansas, Hawaii, Minnesota, Nevada, New Hampshire, New Jersey, New York, Vermont, and West Virginia).

The purpose of the correlational study was to explore the relationship between the inclusion of LPCs as billable providers under PPS and the proportion of LPCs employed at FQHCs. Due to the incomplete sample of states being surveyed, and the inability to statistically address potential confounders (both known and unknown) resulting from the incomplete sample, the results of the two-sample test of proportions were not considered causal. Additionally, as discussed in Chapter II, the two groups of states considered in Research Question Three may differ in levels of counselor versus social worker advocacy, graduate training programs, and other important characteristics that could affect employment outcomes for LPCs in FQHCs. For these reasons, the results of the correlational study are discussed in Chapter V in terms of relationship instead of causality.
Table 4

Research Question Three Summary

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of Groups</th>
<th>Data Type</th>
<th>Data Source</th>
<th>Response Range</th>
<th>Analytic Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of FTE LPCs employed at FQHCs (outcome)</td>
<td>Two: (a) States approving LPCs as billable FQHC mental health providers under PPS (treatment group); and, (b) States not approving LPCs as billable FQHC mental health providers under PPS (control group)</td>
<td>Continuous</td>
<td>Survey of FQHCs in randomly selected states from the two groups of states</td>
<td>0 - .86</td>
<td>Two-sample test of proportions</td>
</tr>
</tbody>
</table>

Sampling Strategy

For the correlational study, the target population consisted of states approving LPCs to generate PPS encounters at FQHCs providing mental health services, in addition to states approving LPCs in the future to become billable FQHC mental health providers under PPS (Hutchinson, 2014). The accessible population or sampling frame consisted of the states identified in Table 5, “Identified Medicaid Expansion States Approving LPCs As Billable FQHC Mental Health Providers Under PPS—Listed in Random Number Generator Order,” and Table 6, “Identified Medicaid Expansion States Not Approving LPCs As Billable FQHC Mental Health Providers Under PPS—Listed in Random Number Generator Order” (Hutchinson, 2014). A cluster sampling strategy was used, and each of these groups of states (listed in Table 5 and Table 6) was considered a cluster. As a reminder, in both of these groups of states, LCSWs are billable FQHCs.
mental health providers and able to generate PPS encounters at FQHCs because of federal law.

**A priori power analysis.** An a priori power analysis was completed using the G*Power program (version 3.1.9.2) in order to establish the number of FQHCs to be surveyed in each group of states within the sampling frame: (a) states approving LPCs as billable FQHC mental health providers under PPS; and, (b) states not approving LPCs as billable FQHC mental health providers under PPS (NACHC, 2015a, 2015b; The Henry J. Kaiser Family Foundation, 2016). This program estimates the probable power and sample size given information such as statistical test to be utilized, significance level ($\alpha$), and desired power (Faul et al., 2007). The following information was inserted: (a) a hypothesized proportion of LPCs of .4 in states approving LPCs as billable FQHC mental health providers under PPS; (b) a hypothesized proportion of LPCs of .2 for states not approving LPCs as billable FQHC mental health providers under PPS (as described in Chapter II, the hypothesized proportions were based on the most recently available national data regarding the number of LPCs and LCSWs in the workforce: 120,000 LCSWs (37%) and 201,368 LCSWs (63%)); (c) $\alpha = .05$ (Cohen, 1988); and, (d) statistical power = .8 (Cohen, 1988). Within these desired parameters, the recommended sample size was 82 FQHCs in each of the two groups of states.

However, as described, this a priori power analysis was based on a hypothesized proportion of LPCs currently employed at FQHCs, and these hypothesized proportions were difficult to establish in the literature due to the absence of relevant studies. When the actual proportions of LPCs and LCSWs found in the current study were input (see
results in Chapter IV), the analysis suggested that responses from only 66 FQHCs in both groups of states (132 total) were necessary to obtain adequate statistical power. Additionally, because the two-sample test of proportions resulted in a significant p-value (see results in Chapter IV), it was evident that there was adequate statistical power because a Type II error had not been committed (i.e., incorrectly failing to reject the null hypothesis).

**Cluster sampling strategy.** In order to achieve this recommended sample size, a cluster sampling strategy was employed (Heppner et al., 2008; Hutchinson, 2014). First, relevant Medicaid expansion states were identified in order to remove the confounding factor of multiple, varying Medicaid policies and to create a more consistent means of comparison between the two groups of states. For the purposes of this analysis, because current employment data (from November 2016) were collected, Medicaid expansion states with expansion occurring on or before September 1, 2015 were included (in order to allow for at least one full year of implementation).

Second, these identified Medicaid expansion states were divided into two groups (i.e., clusters): (a) states approving LPCs as billable FQHC mental health providers under PPS (see Table 5); and, (b) states not approving LPCs as billable FQHC mental health providers under PPS (see Table 6; NACHC, 2015a, 2015b; The Henry J. Kaiser Family Foundation, 2016). The 2014 survey of state primary care associations combined with the 2015 update produced by the NACHC was utilized as the basis for categorizing states in terms of whether or not LPCs can generate PPS encounters (NACHC, 2015a, 2015b). This research publication was referenced in the current study because of the
complexity of Medicaid policies in the 50 states and the difficulty of obtaining accurate current billing provider information in academic literature or through contact with each state’s Medicaid office. The National Association for Community Health Centers is a trusted resource that conducts high quality research regarding FQHCs (Tufts Health Care Institute, 2015). According to the organization’s website, the NACHC “also educates the public, health officials, and decision-makers at the local, state, and national level about the critical role of health centers in promoting access to high quality, affordable health care that reduces disparities and advances community well-being” (NACHC, 2016a, para. 1). It should be noted, however, that a limitation of this research publication was that the following five Medicaid expansion states did not provide 2014 information regarding LPCs’ ability to generate PPS encounters, and thus, were not included in this study’s analysis: Alaska, Delaware, Kentucky, Maryland, and North Dakota (NACHC, 2015a).

As noted, the 2014 survey provided the initial basis for the categorization of states into Table 5 (approval of LPCs) or Table 6 (non-approval of LPCs; NACHC, 2015a). Then, the 2015 update provided the basis for removing selected states from Table 6, depending on whether LPCs’ ability to generate PPS encounters had changed from 2014 to 2015 (NACHC, 2015b). Thus, Arizona and New Mexico were removed from Table 6 and added to Table 5 because the 2015 update showed that Arizona and New Mexico have changed their policies to allow LPCs to generate PPS encounters. However, these states were excluded from the study because it was such a recent policy change and hiring decisions might not yet be affected in those states; employment outcomes related to changes in PPS provider status will not happen immediately, and accordingly, this
study did not survey FQHCs from those states (Adepoju, Preston, & Gonzales, 2015; Grol, Wensing, Eccles, & Davis, 2013). It should also be noted that California was excluded from Table 6 since this state was the 50th and final state to license counselors in 2009, and the marriage and family therapist licensure is still its predominate licensure for master’s-level mental health providers.

A combination of sources was employed to confirm the 2014 NACHC’s survey results and its 2015 update for each of the randomly selected states in the current study, including: (a) contact with each state’s Federally Qualified Health Center Association; and, (b) accessing Medicaid rules, regulations, and provider manuals related to FQHCs in each state. As a note, the Ohio Association of Community Health Centers clarified that licensed counselors in Ohio are able to generate PPS encounters under the general supervision of physicians (i.e., the physician is not required to be onsite during the counseling appointment). Thus, in practice, Ohio counselors are able to generate PPS encounters, and Ohio is listed in Table 5.
### Table 5

*Identified Medicaid Expansion States Approving LPCs As Billable FQHC Mental Health Providers Under PPS—Listed in Random Number Generator Order*

<table>
<thead>
<tr>
<th>State</th>
<th>Number of FQHCs in 2015</th>
<th>Number of FQHCs in 2015 Providing Mental Health Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio</td>
<td>45</td>
<td>28</td>
</tr>
<tr>
<td>Washington</td>
<td>28</td>
<td>22</td>
</tr>
<tr>
<td>Oregon</td>
<td>31</td>
<td>25</td>
</tr>
<tr>
<td>Illinois</td>
<td>44</td>
<td>32</td>
</tr>
<tr>
<td>Michigan</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Arizona</td>
<td>EXCLUDED</td>
<td>EXCLUDED</td>
</tr>
<tr>
<td>New Mexico</td>
<td>EXCLUDED</td>
<td>EXCLUDED</td>
</tr>
<tr>
<td></td>
<td>Total Number of FQHCs in 2015 Providing Mental Health Services Used in Analysis</td>
<td>107</td>
</tr>
</tbody>
</table>

### Table 6

*Identified Medicaid Expansion States Not Approving LPCs As Billable FQHC Mental Health Providers Under PPS—Listed in Random Number Generator Order*

<table>
<thead>
<tr>
<th>State</th>
<th>Number of FQHCs in 2015</th>
<th>Number of FQHCs in 2015 Providing Mental Health Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Jersey</td>
<td>23</td>
<td>12</td>
</tr>
<tr>
<td>West Virginia</td>
<td>28</td>
<td>13</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Hawaii</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Nevada</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Arkansas</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>California</td>
<td>EXCLUDED</td>
<td>EXCLUDED</td>
</tr>
<tr>
<td>Minnesota</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Vermont</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>New York</td>
<td>65</td>
<td>50</td>
</tr>
<tr>
<td>Connecticut</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Indiana</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Iowa</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Colorado</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Total Number of FQHCs in 2015 Providing Mental Health Services Used in Analysis</td>
<td>123</td>
</tr>
</tbody>
</table>
Because only those FQHCs providing mental health services were surveyed, the number (based on 2015 Uniform Data System data) of FQHCs providing mental health services in each group of states was added to Tables 5 and 6. The goal of this study was to collect employment data from all FQHCs providing mental health services within the identified randomly selected states. Surveying more FQHCs than the 132 needed for adequate effect size allowed for the possibility of non-responses from FQHCs. Only FQHCs providing mental health services at 2% or greater of all clinical services were surveyed, because a brief review of 2010 through 2014 Uniform Data System data showed that mental health services at less than 2% can vary to 0% depending on the year. Eliminating FQHCs with a low percentage of mental health services ensured that the mental health services at a given FQHC were more established, such that a greater number of LPCs and/or LCSWs were employed in the surveyed FQHCs.

The specific FQHCs providing mental health services in these states were identified utilizing 2015 Uniform Data System data (HHS, HRSA, BPHC, Health Center Program, 2015). Then, several strategies were employed to maximize the response rate of the identified FQHCs. The researcher-developed employment survey was mailed (see section entitled “Instrumentation: 2016 Health Center Mental Health Employment Survey” and Appendix A) with the instructions to return the survey within three weeks. Following the three-week time frame, the researcher commenced a follow-up email (see Appendix B) and telephone-based survey in an effort to collect the employment data. The mailed survey served as the script for the follow-up email and telephone survey.
Because the sample size was identifiable, the response rate of this study is reported in Chapter IV.

**Resultant Sample**

In total, of the 230 FQHCs identified to be surveyed in both groups of states, 138 FQHCs responded, which resulted in a total response rate of 60%. In states approving LPCs as billable FQHC mental health providers under PPS, 66 of 107 FQHCs responded, which resulted in a response rate of 61.68%. In states not approving LPCs as billable FQHC mental health providers under PPS, 72 of 123 FQHCs responded, which resulted in a response rate of 58.54%.

**Instrumentation: 2016 Health Center Mental Health Employment Survey (Appendix A)**

The instrumentation for this study’s Research Question Three consisted of a one-item employment survey created by the researcher entitled “2016 Health Center Mental Health Employment Survey.” The purpose of this researcher-developed survey was to collect data regarding the employment of LPCs and LCSWs in FQHCs towards the fulfillment of Research Question Three. This survey was needed because, as stated in the “Instrumentation” section of the quasi-experimental study, the Uniform Data System does not identify counselors as a unique type of mental health care provider. LPCs are combined into a category labeled “other licensed mental health staff” which could include marriage and family therapists and nurses trained in mental health (BPHC, 2015, p. 55).
This survey consisted of one item that collected information on the number of FTE LPCs and FTE LCSWs employed on November 15, 2016, at the surveyed FQHCs. Because of the complexity of arrangements at FQHCs, the terms “Federally Qualified Health Center,” “licensed professional counselors,” and “licensed clinical social workers” were given further definition in footnotes below the questions. The date of November 15, 2016, was selected to assist in maintaining consistency across responses from FQHCs.

**Analytic Strategies for the Correlational Study:**

**Research Question Three**

This research question required a two-sample test of proportions, also referred to as an estimate of the difference between two binomial proportions (Mendenhall, Beaver, & Beaver, 2009). A two-sample test of proportions is a statistical technique utilized to compare proportions occurring within two different groups (Mendenhall et al., 2009). The numerator for the proportion was the number of LPCs. The denominator was the total number of LPCs plus the total number of LCSWs.

Performing this test entailed a three-step process. First, the total proportion of LPCs was calculated for each state surveyed. Second, the total proportion of LPCs was calculated for group one (i.e., states approving LPCs as billable FQHC mental health providers under PPS) and for group two (i.e., states not approving LPCs as billable FQHC mental health providers under PPS). Third, the total proportion for group two was subtracted from the total proportion for group one, and this number was divided by the standard error of the difference. The standard error of the difference was equal to the standard deviation of the calculated proportions of LPCs. This calculation ensured that
the result was standardized and translated into Z-units, so that it could be compared to the standard normal table (i.e., the Z-table).

In summary, the Z-test formula was equal to:

\[ Z = \frac{P_1 - P_2}{S_{P_1-P_2}} \]

Where \( P_1 \) = the proportion of LPCs employed at FQHCs in states approving LPCs as billable FQHC mental health providers under PPS, and \( P_2 \) = the proportion of LPCs employed at FQHCs in states not approving LPCs as billable FQHC mental health providers under PPS, and

Where \( S_{P_1-P_2} \) was the standard error of the difference and was equal to:

\[ S_{P_1-P_2} = \sqrt{P^* (1 - P^*) \frac{N_1 + N_2}{N_1 N_2}} \]

Where \( P^* \) was the combined proportion of \( P_1 \) + \( P_2 \); \( N_1 \) was the number of responding FQHCs in group one; and, \( N_2 \) was the number of responding FQHCs in group two:

\[ P^* = \frac{N_1 P_1 + N_2 P_2}{N_1 + N_2} \]

Thus, the null hypothesis was equal to:

\( H_0: P_1 = P_2 \) (i.e., the proportions were equivalent)

The alternative hypothesis was equal to:

\( H_1: P_1 > P_2 \) (i.e., \( P_1 \) was greater than \( P_2 \))

Implementing \( \alpha = .05 \), if the test statistic equaled a number greater than 1.96 (i.e., the standard normal result for a one-tailed test), then it was established that there was a
significantly higher proportion of LPCs employed at FQHCs in states approving LPCs as billable FQHC mental health providers under PPS.

This research was focused on the proportion of LPCs out of the total number of mental health care professionals licensed at the master’s-level employed in FQHCs, and regardless of the number of patients served or the size of the FQHC, calculating this proportion conveyed the relevant information. Additionally, it was not necessary to compare the number of LPCs or LCSWs registered with the appropriate licensure boards in each state because, in this study, the discovered proportions were compared solely based on PPS reimbursement policies. It was expected that there would be fewer LPCs than LCSWs employed at FQHCs in general because there are fewer LPCs in the employable population of mental health professionals (as described in Chapter II), but this methodology sought to determine the possible relationship between states’ designations of LPCs as billable FQHC mental health providers under PPS and the proportion of LPCs employed at FQHCs.

**Institutional Review Board and Data Handling Procedures**

A description of this study’s procedures was submitted to the University of Northern Colorado’s Institutional Review Board (IRB) under the “exempt” category. This IRB application included the following information about the data handling procedures. For Research Questions One and Two, because Uniform Data System reports were available publicly and aggregated at the state level, it was not necessary to maintain a secure file. Still, the data were compiled and stored on a password-protected computer. For Research Question Three, upon immediate receipt of the completed
survey from each FQHC, the researcher entered the information into a password-protected computer for the purpose of data analysis. Then, the paper-version of the survey was shredded or the email to and from the FQHC was permanently deleted. Data from individual FQHC responses were aggregated and reported at the state level. The informed consent document found in Appendix A was included in all mailed surveys. The informed consent document found in Appendix B was included in all emailed surveys. The IRB did not require a signed informed consent to be returned to the researcher in order to complete this study (see Appendix C).

**Incentives**

There were minimal incentives provided to each FQHC in the identified sample in the correlational portion of the study. The researcher entered participating FQHCs into a drawing for three separate $50 Amazon gift cards to be delivered to the email address provided on the completed survey (optional). Additionally, all FQHCs were alerted in the letter accompanying the survey and informed consent document that copies of any published research resulting from the data would be provided following publication.

**Conclusion**

Ultimately, a count model difference-in-differences analysis strategy was selected for Research Questions One and Two as opposed to a two-group, pretest-posttest true experimental design because random assignment was not possible in this study, and there was likely a relationship between the outcome variables of mental health visits and FTE mental health staff and the forcing variable of Medicaid expansion. As discussed in Chapter II, if a state expands its Medicaid population, the new enrollees receiving
insurance coverage may be more likely to seek health services of all types, including mental health services. FQHCs were established to serve the uninsured and underinsured, and Medicaid reimbursement currently provides the largest source of revenue for FQHCs. The increased demand for mental health services from Medicaid expansion could result in greater employment opportunities for mental health staff at FQHCs. Of course, it is possible that as individuals gain access to Medicaid insurance in Medicaid expansion states, they will seek mental health services with mental health providers other than FQHCs—potentially resulting in no increases in mental health visits and FTE mental health staff post-Medicaid expansion. In either case, the outcome variables (the number of mental health visits and FTE mental health staff at FQHCs) and the forcing variable (Medicaid expansion) are likely related. Employing a difference-in-differences analysis strategy will generate a more accurate estimation of the treatment effect. For Research Question Three, it was possible to utilize a two-sample test of proportions to compare the proportion of employed LPCs within the sample of FQHCs in the two groups of states: (a) states approving LPCs as billable FQHC mental health providers under PPS; and, (b) states not approving LPCs as billable FQHC mental health providers under PPS.

In conclusion, this chapter describes the research design and methodology that were employed in the current study, including the sampling strategy, procedures, instrumentation, and the analytical strategies for each research question. The methods described in this chapter were utilized to target the study’s three research questions. In
Chapter IV, the statistical and practical results of the described analytic strategies for each research question are conveyed.
CHAPTER IV

RESULTS

Introduction

This study involved three primary purposes: (a) to test the causal impact of Medicaid expansion on the number of mental health visits at FQHCs; (b) to test the causal impact of Medicaid expansion on the number of FTE mental health staff employed by FQHCs; and, (c) to explore the relationship between the inclusion of LPCs as billable providers under PPS and the proportion of LPCs employed at FQHCs. This chapter describes the results of the data analyses implemented to fulfill these essential purposes. The presentation of results is organized into two sections: (a) Quasi-Experimental Study: Count Model Difference-in-Differences Analyses; and, (b) Correlational Study: Two-Sample Test of Proportions.

Quasi-Experimental Study: Count Model Difference-in-Differences Analyses

Brief Description of Data Collection and Sample

As noted in Chapter III, all FQHCs are required to report specific data (including the number of mental health visits and FTE mental health staff) to the Uniform Data System annually in order to maintain the FQHC distinction and receive federal funding (BPHC, 2014). This information is compiled and reported by the primary administrative officer and team at each FQHC. These data are also reviewed annually by the BPHC in order to “ensure compliance with legislative and regulatory requirements, improve health
center performance and operations, and report overall program accomplishments” (BPHC, 2015, p. 11). In 2012, there were 1,198 total FQHCs that reported to the Uniform Data System; in 2013, there were 1,202 reporting FQHCs; in 2014, there were 1,278 reporting FQHCs; and, in 2015, there were 1,375 reporting FQHCs. These data are aggregated at the state level and made publicly available on the website of the U.S. Department of Health & Human Services (HHS), Health Resources & Services Administration (HRSA), Bureau of Primary Health Care (BPHC), Health Center Program (2012, 2013, 2014, 2015).

For research questions one and two, Uniform Data System data regarding the number of mental health visits and FTE mental health staff in each selected state for the years 2012-2015 were accessed to analyze state-level information. The sampling strategy for the quasi-experimental design first entailed separating states into two groups: (a) Medicaid expansion states, and (b) non-Medicaid expansion states. States that expanded Medicaid on January 1, 2014, were considered the treatment group in the causal comparison. Those states that did not expand Medicaid constituted the control group. Seven states that expanded Medicaid after January 1, 2014 (e.g., Alaska, Indiana, Louisiana, Michigan, Montana, New Hampshire, and Pennsylvania), were removed from the study because FQHC data are reported annually by calendar year, from January 1 to December 31. Including data from these states in the analysis would likely dilute the potential effect of Medicaid expansion on mental health visits and FTE mental health staff reported at FQHCs during the year. The 18 states not expanding Medicaid were considered the control group in the causal comparison and were placed in the analysis
group labeled “non-Medicaid expansion states” (The Henry J. Kaiser Family Foundation, 2016; see Table 3).

**Hypothesis Testing: Research Question One**

Research Question One was designed to test the causal impact of Medicaid expansion on the number of mental health visits at FQHCs. This question assessed whether the rate of change in the number of mental health visits at FQHCs was significantly different in Medicaid expansion states versus non-Medicaid expansion states. As described in Chapter III, a Poisson count model difference-in-differences analysis was utilized to estimate fixed and random effects via R software program version 3.1.1. The model’s descriptive statistics, test of normality, and estimates of fixed and random effects are presented.

**Descriptive statistics.** The total number of mental health visits, mean, median, mode, standard deviation, and range for the number of mental health visits at FQHCs are presented in Tables 7-9 below. The tables delineate the two groups of states (i.e., Medicaid expansion states and non-Medicaid expansion states), in addition to providing a summary of all states combined. Lastly, the percentage increases in mental health visits from the previous year are calculated in Table 10.

It is evident that there were substantial increases in the number of mental health visits at FQHCs in all states and within each group of states (Medicaid expansion states and non-Medicaid expansion states) from 2012 to 2015. In Medicaid expansion states, the total number of mental health visits at FQHCs increased from 3,280,624 in 2012 to 4,616,144 in 2015 (40.71%). In non-Medicaid expansion states, the total number of
mental health visits at FQHCs increased from 1,328,396 in 2012 to 1,722,055 in 2015 (29.63%).

Table 7

**Mental Health Visits in Combined States, 43 States**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>21,385,932</td>
<td>4,609,020</td>
<td>4,951,846</td>
<td>5,486,867</td>
<td>6,338,199</td>
</tr>
<tr>
<td>Mean</td>
<td>124,336.81</td>
<td>107,186.51</td>
<td>115,159.21</td>
<td>127,601.56</td>
<td>147,399.98</td>
</tr>
<tr>
<td>Median</td>
<td>58,199</td>
<td>52,769</td>
<td>55,526</td>
<td>56,759</td>
<td>65,866</td>
</tr>
<tr>
<td>Mode</td>
<td>6,745</td>
<td>6,745</td>
<td>7,242</td>
<td>9,150</td>
<td>11,918</td>
</tr>
<tr>
<td>SD</td>
<td>166,989.74</td>
<td>134,639.19</td>
<td>154,666.27</td>
<td>174,030.89</td>
<td>200,636.85</td>
</tr>
<tr>
<td>Range</td>
<td>(152,977,293)</td>
<td>(722,582,047)</td>
<td>(152,728,703)</td>
<td>(632,840,518)</td>
<td>(2,255,977,293)</td>
</tr>
</tbody>
</table>

Table 8

**Mental Health Visits in Medicaid Expansion States, 25 States**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>15,415,454</td>
<td>3,280,624</td>
<td>3,569,918</td>
<td>3,948,768</td>
<td>4,616,144</td>
</tr>
<tr>
<td>Mean</td>
<td>154,154.54</td>
<td>131,224.96</td>
<td>142,796.72</td>
<td>157,950.72</td>
<td>184,645.76</td>
</tr>
<tr>
<td>Median</td>
<td>70,106.50</td>
<td>64,492</td>
<td>67,283</td>
<td>77,597</td>
<td>87,477</td>
</tr>
<tr>
<td>Mode</td>
<td>62,446</td>
<td>62,446</td>
<td>77,679</td>
<td>108,737</td>
<td>147,803</td>
</tr>
<tr>
<td>SD</td>
<td>193,224.76</td>
<td>151,970.88</td>
<td>180,870.69</td>
<td>202,982.67</td>
<td>235,230.47</td>
</tr>
<tr>
<td>Range</td>
<td>(152,977,293)</td>
<td>(722,582,047)</td>
<td>(152,728,703)</td>
<td>(632,840,518)</td>
<td>(2,255,977,293)</td>
</tr>
</tbody>
</table>
Table 9

*Mental Health Visits in Non-Medicaid Expansion States, 18 States*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>5,970,478</td>
<td>1,328,396</td>
<td>1,381,928</td>
<td>1,538,099</td>
<td>1,722,055</td>
</tr>
<tr>
<td>Mean</td>
<td>82,923.31</td>
<td>73,799.78</td>
<td>76,773.78</td>
<td>85,449.94</td>
<td>95,669.72</td>
</tr>
<tr>
<td>Median</td>
<td>40,603</td>
<td>36,652</td>
<td>39,637.50</td>
<td>43,400</td>
<td>51,968</td>
</tr>
<tr>
<td>Mode</td>
<td>6,745</td>
<td>6,745</td>
<td>7,242</td>
<td>9,150</td>
<td>11,918</td>
</tr>
<tr>
<td>SD</td>
<td>110,044.34</td>
<td>100,753.05</td>
<td>101,155.34</td>
<td>115,856.89</td>
<td>128,306.98</td>
</tr>
<tr>
<td>Range</td>
<td>(1,156,</td>
<td>(1,156,</td>
<td>(2,967,</td>
<td>(2,509,</td>
<td>(2,457,</td>
</tr>
<tr>
<td></td>
<td>495,088)</td>
<td>395,922)</td>
<td>384,583)</td>
<td>447,058)</td>
<td>495,088)</td>
</tr>
</tbody>
</table>

Table 10

*Mental Health Visits Percentage Increases from the Previous Year*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined States</td>
<td>N/A</td>
<td>7.44%</td>
<td>10.80%</td>
<td>15.51%</td>
<td>+37.52%</td>
</tr>
<tr>
<td>Medicaid Expansion States</td>
<td>N/A</td>
<td>8.81%</td>
<td>10.61%</td>
<td>16.90%</td>
<td>+40.71%</td>
</tr>
<tr>
<td>Non-Medicaid Expansion States</td>
<td>N/A</td>
<td>4.03%</td>
<td>11.30%</td>
<td>11.96%</td>
<td>+29.63%</td>
</tr>
</tbody>
</table>

**Test of normality.** A Shapiro-Wilk test of normality tested whether the sample was normally distributed and the results are illustrated in Figure 1. First, the following caveat should be acknowledged—the Poisson count model in the current study attempted to account for the non-normality of the data.
The resulting p-value was .005 (W = .98), which was less than the chosen alpha level of .05. This indicated that there was some evidence that the data were not normally distributed. The primary lower outliers were identified as the states of Wyoming (non-Medicaid expansion state) and South Dakota (non-Medicaid expansion state). These states have fewer FQHCs and lower numbers of mental health visits in comparison to the total population of states in the current study. The primary upper outlier was identified as the state of Nevada (Medicaid expansion state), because this state demonstrated a rapid increase in the number of mental health visits in 2015. In examining the results of this test or normality, it appears that there was a possibility of an increase in the Type I error rate in the outcome of this analysis. However, the scaled residuals were assessed and deemed appropriate.
Estimates of fixed and random effects. The model’s estimates of fixed and random effects presented in Table 11 illustrate that, in both groups of states, there was a substantial increase in the number of mental health visits at FQHCs from 2012 to 2015. Nevertheless, there was not adequate support for Hypothesis One. The rate of change in the number of mental health visits was significantly different in Medicaid expansion states as compared to non-Medicaid expansion states from 2012-2013 to 2014-2015. This was evident in the significant p-values in Table 11 for the primary difference-in-differences coefficients of interest, $G_jI_t$ and $t_GjI_t$. However, the results provide evidence for the opposite outcome than the predicted hypothesis. There was a significant increase in the rate of change of mental health visits in non-Medicaid expansion states as compared to in Medicaid expansion states. In summary, there was not support for Hypothesis One, as the results of the analysis showed that there was not a significantly higher rate of change in mental health visits in Medicaid expansion states following Medicaid expansion ($\alpha = .05$).
Table 11

Research Question One Estimates of Fixed and Random Effects

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>SE</th>
<th>z-value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>10.49</td>
<td>.36</td>
<td>29.46</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>t_t</td>
<td>.06</td>
<td>.03</td>
<td>2.11</td>
<td>.03*</td>
</tr>
<tr>
<td>G_j</td>
<td>.60</td>
<td>.47</td>
<td>1.29</td>
<td>.20</td>
</tr>
<tr>
<td>I_t</td>
<td>.07</td>
<td>.002</td>
<td>31.64</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>G_j*I_t</td>
<td>-.05</td>
<td>.002</td>
<td>-21.55</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>t_tG_j</td>
<td>.06</td>
<td>.04</td>
<td>1.58</td>
<td>.11</td>
</tr>
<tr>
<td>t_tI_t</td>
<td>.07</td>
<td>.002</td>
<td>42.22</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>t_tG_jI_t</td>
<td>-.005</td>
<td>.002</td>
<td>-2.55</td>
<td>.01*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Variance</th>
<th>SD</th>
<th>Correlation</th>
</tr>
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<tbody>
<tr>
<td>u_0i</td>
<td>2.27</td>
<td>1.51</td>
<td></td>
</tr>
<tr>
<td>u_11t_t</td>
<td>.015</td>
<td>.12</td>
<td>-.54</td>
</tr>
</tbody>
</table>

*p < .05

The intercept coefficient represented the number of FQHC mental health visits in 2012 for non-Medicaid expansion states. The value of e^{10.49} indicated that the model estimated approximately 35,940.28 mental health visits annually in 2012 per non-Medicaid expansion state. It should be noted that because model accounted for multiple complex factors, its estimates may be different than if calculated outside of the model.
utilizing raw data. The true value of the model lies in its designations of statistical significance. Additionally, it is important to note that the unrounded coefficients were input to calculate the estimates of the number of mental health visits.

The coefficient $t_t$ represented the un-exponentiated estimated multiplicative rate of change (i.e., the slope) in the number of mental health visits in non-Medicaid expansion states in 2012-2013 (i.e., before Medicaid expansion). The value of $e^{0.06}$ was equal to approximately 1.06. From 2012-2013 in non-Medicaid expansion states, the average change in the number of mental health visits was a multiple of 1.06. Meaning that there were 1.06 times more mental health visits each year before Medicaid expansion (from years 2012 to 2013) in the non-Medicaid expansion states.

The coefficient $G_j$ represented the un-exponentiated estimated multiplicative difference prior to Medicaid expansion in the number of mental health visits between Medicaid expansion states and non-Medicaid expansion states. The value of $e^{0.60}$ was equal to approximately 1.82. Prior to Medicaid expansion (January 1, 2014), there were 1.82 times more mental health visits in Medicaid expansion states than in non-Medicaid expansion states.

The coefficient $I_t$ represented the un-exponentiated estimated multiplicative change in the number of mental health visits in non-Medicaid expansion states from 2012-13 to 2014-15. The value of $e^{0.07}$ was equal to approximately 1.07. From pre-Medicaid expansion to post-Medicaid expansion, there was a predicted average of 1.07 times more mental health visits in non-Medicaid expansion states.
The coefficient $G_j I_t$ represented the required adjustment for Medicaid expansion states to the un-exponentiated multiplicative change in the number of mental health visits from pre-Medicaid expansion (2012-2013) to post-Medicaid expansion (2014, the start of Medicaid expansion) in non-Medicaid expansion states. This was an important difference-in-differences coefficient of interest. The value of $e^{-0.05}$ was equal to approximately 0.95. On average, the required adjustment in Medicaid expansion states was 95% the required adjustment in non-Medicaid expansion states. The value of $e^{7.05}$ was equal to the value of $e^{0.02}$, which was equal to approximately 1.02. For Medicaid expansion states, there was on average a 2% adjustment in the number of mental health visits from the model’s predictions based on 2012-2013 data to the actual 2014 data. This can be compared to the average adjustment required for non-Medicaid expansion states. For non-Medicaid expansion states, there was on average a 7% adjustment in the number of mental health visits from the model’s predictions based on 2012-2013 data to the actual 2014 data. In summary, this coefficient indicated that there was a significantly greater increase in the number of mental health visits in 2014 in non-Medicaid expansion states (using the model’s predictions based on 2012-2013 data for comparison).

The coefficient $t_t G_j$ represented the adjustment to the rate of change (in the number of mental health visits) in Medicaid expansion states in 2012-2013 (i.e., before Medicaid expansion), as compared to non-Medicaid expansion states. The value of $e^{0.06}$ was equal to approximately 1.06. There was 1.06 times the growth in mental health visits in the pre-Medicaid expansion years for Medicaid expansion states as compared to non-Medicaid expansion states.
The coefficient $t_t I_t$ represented the un-exponentiated estimated multiplicative change in the rate of change in the number of mental health visits for non-Medicaid expansion states from 2012-13 to 2014-15. The value of $e^{0.07}$ was equal to approximately 1.07. There was 1.07 times the annual growth in mental health visits in the post-Medicaid expansion years than in the pre-Medicaid expansion years for non-Medicaid expansion states. Meaning that the mental health visits in non-Medicaid expansion states grew 1.07 times faster in the post-Medicaid expansion years than the pre-Medicaid expansion years.

The coefficient $t_t G_j I_t$ represented the required adjustment for Medicaid expansion states to the un-exponentiated multiplicative yearly rate of change in the number of mental health visits from pre-Medicaid expansion to post-Medicaid expansion in non-Medicaid expansion states. This was the primary difference-in-differences coefficient of interest. The value of $e^{-0.05}$ was equal to approximately 0.995. Medicaid expansion states experienced 99.5% of the increase in yearly rate of change from pre-Medicaid expansion to post-Medicaid expansion than was seen in non-Medicaid expansion states. In summary, Medicaid expansion states had a significantly lower rate of change in mental health visits after Medicaid expansion, as compared to states that chose not to expand Medicaid.

**Hypothesis Testing: Research Question Two**

Research Question Two was designed to test the causal impact of Medicaid expansion on the number of FTE mental health staff at FQHCs. This question assessed whether the rate of change in FTE mental health staff at FQHCs was significantly
different following Medicaid expansion between the two groups of states. As described in Chapter III, a Gamma count model difference-in-differences analysis was utilized to estimate fixed and random effects via R software program version 3.1.1. The model’s descriptive statistics, test of normality, and estimates of fixed and random effects are presented.

**Descriptive statistics.** The total number of FTE mental health staff, mean, median, mode, standard deviation, and range for the number of FTE mental health staff at FQHCs are presented in Tables 12-14 below. The tables delineate the two groups of states (i.e., Medicaid expansion states and non-Medicaid expansion states), in addition to providing a summary of all states combined. Lastly, the percentage increases in FTEs from the previous year are calculated in Table 15.

It is evident that there were substantial increases in the number of FTE mental health staff at FQHCs in all states and within each group of states (Medicaid expansion states and non-Medicaid expansion states) from 2012 to 2015. In Medicaid expansion states, the total number of FTE mental health staff at FQHCs increased from 3,240.16 in 2012 to 5,012.79 in 2015 (54.71%). In non-Medicaid expansion states, the total number of FTE mental health staff at FQHCs increased from 1,220.98 in 2012 to 1,738.27 in 2015 (42.37%).
### Table 12

**FTE Mental Health Staff in Combined States, 43 States**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>N/A</td>
<td>4,461.14</td>
<td>4,921.08</td>
<td>5,509.37</td>
<td>6,751.06</td>
</tr>
<tr>
<td>Mean</td>
<td>125.83</td>
<td>103.75</td>
<td>114.44</td>
<td>128.13</td>
<td>157.00</td>
</tr>
<tr>
<td>Median</td>
<td>57.03</td>
<td>43.42</td>
<td>49.74</td>
<td>57.58</td>
<td>69.16</td>
</tr>
<tr>
<td>Mode</td>
<td>43.90</td>
<td>8.35</td>
<td>43.90</td>
<td>13.34</td>
<td>17.42</td>
</tr>
<tr>
<td>SD</td>
<td>166.28</td>
<td>130.72</td>
<td>149.91</td>
<td>169.60</td>
<td>206.42</td>
</tr>
<tr>
<td>Range</td>
<td>(.63, 1,083.16)</td>
<td>(.95, 602.30)</td>
<td>(.63, 722.32)</td>
<td>(.98, 841.48)</td>
<td>(3.04, 1,083.16)</td>
</tr>
</tbody>
</table>

### Table 13

**FTE Mental Health Staff in Medicaid Expansion States, 25 States**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>N/A</td>
<td>3,240.16</td>
<td>3,594.15</td>
<td>3,988.92</td>
<td>5,012.79</td>
</tr>
<tr>
<td>Mean</td>
<td>158.36</td>
<td>129.61</td>
<td>143.77</td>
<td>159.56</td>
<td>200.51</td>
</tr>
<tr>
<td>Median</td>
<td>78.10</td>
<td>66.76</td>
<td>78.09</td>
<td>82.83</td>
<td>105.15</td>
</tr>
<tr>
<td>Mode</td>
<td>43.90</td>
<td>55.32</td>
<td>43.90</td>
<td>106.56</td>
<td>173.26</td>
</tr>
<tr>
<td>SD</td>
<td>194.34</td>
<td>151.85</td>
<td>176.19</td>
<td>196.98</td>
<td>244.85</td>
</tr>
<tr>
<td>Range</td>
<td>(.63, 1,083.16)</td>
<td>(.95, 602.30)</td>
<td>(.63, 722.32)</td>
<td>(.98, 841.48)</td>
<td>(5.28, 1,083.16)</td>
</tr>
</tbody>
</table>

### Table 14

**FTE Mental Health Staff in Non-Medicaid Expansion States, 18 States**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>N/A</td>
<td>1,220.98</td>
<td>1,326.93</td>
<td>1,520.45</td>
<td>1,738.27</td>
</tr>
<tr>
<td>Mean</td>
<td>80.65</td>
<td>67.83</td>
<td>73.72</td>
<td>84.47</td>
<td>96.57</td>
</tr>
<tr>
<td>Median</td>
<td>40.86</td>
<td>33.99</td>
<td>36.48</td>
<td>41.80</td>
<td>55.44</td>
</tr>
<tr>
<td>Mode</td>
<td>8.35</td>
<td>8.35</td>
<td>9.68</td>
<td>13.34</td>
<td>17.42</td>
</tr>
<tr>
<td>SD</td>
<td>101.82</td>
<td>85.51</td>
<td>93.16</td>
<td>113.20</td>
<td>118.25</td>
</tr>
<tr>
<td>Range</td>
<td>(3.01, 421.86)</td>
<td>(3.01, 314.42)</td>
<td>(3.97, 326.08)</td>
<td>(3.27, 421.86)</td>
<td>(3.04, 415.13)</td>
</tr>
</tbody>
</table>
Table 15

*FTE Mental Health Staff Percentage Increases from the Previous Year*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined States</td>
<td>N/A</td>
<td>10.31%</td>
<td>11.95%</td>
<td>22.45%</td>
<td>+51.33%</td>
</tr>
<tr>
<td>Medicaid Expansion States</td>
<td>N/A</td>
<td>10.93%</td>
<td>10.98%</td>
<td>25.67%</td>
<td>+54.71%</td>
</tr>
<tr>
<td>Non-Medicaid Expansion States</td>
<td>N/A</td>
<td>8.68%</td>
<td>14.58%</td>
<td>14.33%</td>
<td>+42.37%</td>
</tr>
</tbody>
</table>

**Test of normality.** A Shapiro-Wilk test of normality tested whether the sample was normally distributed and the results are illustrated in Figure 2. First, the following caveat should be acknowledged—the Gamma count model in the current study attempted to account for the non-normality of the data.

*Figure 2. Shapiro-Wilk Test of Normality, Normal Q-Q Plot for Research Question Two*

The resulting p-value was .003 (W = .97), which was less than the chosen alpha level of .05. This indicates that there was some evidence that the data were not normally
distributed. The primary lower outliers were identified as the states of Wyoming (non-Medicaid expansion state) and South Dakota (non-Medicaid expansion state). These states have fewer FQHCs and lower numbers of FTE mental health staff in comparison to the total population of states in the current study. The primary upper outlier was identified as the state of Nevada (Medicaid expansion state), because this state demonstrated a rapid increase in the number of FTE mental health staff in 2015. In examining the results of this test or normality, it appears that there was a possibility of an increase in the Type I error rate in the outcome of this analysis. However, the scaled residuals were assessed and deemed appropriate.

**Estimates of fixed and random effects.** The model’s estimates of fixed and random effects presented in Table 12 illustrate that, in both groups of states, there was a substantial increase in the number of FTE mental health staff at FQHCs from 2012 to 2015. Nevertheless, there was not adequate support for Hypothesis Two. The rate of change in the number of FTE mental health staff was not significantly different in Medicaid expansion states as compared to non-Medicaid expansion states from 2012-2013 to 2014-2015. This was evident in the non-significant p-values in Table 16 for the primary difference-in-differences coefficients of interest, $G_j I_t$ and $t_t G_j I_t$. While the number of FTE mental health staff increased at a greater rate in Medicaid expansion states than non-Medicaid expansion states from 2012-2015, this rate of change was not statistically significantly greater in this model. In summary, there was not support for Hypothesis Two, as the results of the analysis showed that there was not a significantly
higher rate of change in FTE mental health staff in Medicaid expansion states following Medicaid expansion ($\alpha = .05$).

Table 16

*Research Question Two Estimates of Fixed and Random Effects*

<table>
<thead>
<tr>
<th></th>
<th>$\beta$</th>
<th>$SE$</th>
<th>$t$-value</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>3.63</td>
<td>.44</td>
<td>8.23</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>$t_t$</td>
<td>.08</td>
<td>.06</td>
<td>1.42</td>
<td>.16</td>
</tr>
<tr>
<td>$G_j$</td>
<td>.46</td>
<td>.57</td>
<td>.80</td>
<td>.43</td>
</tr>
<tr>
<td>$I_t$</td>
<td>.009</td>
<td>.08</td>
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<td>.91</td>
</tr>
<tr>
<td>$G_jI_t$</td>
<td>.04</td>
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<td>.39</td>
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<td>.78</td>
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<tr>
<td>$t_tI_t$</td>
<td>.12</td>
<td>.06</td>
<td>1.93</td>
<td>.05</td>
</tr>
<tr>
<td>$t_tG_jI_t$</td>
<td>.13</td>
<td>.08</td>
<td>1.51</td>
<td>.13</td>
</tr>
<tr>
<td><strong>Variance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$u_{0i}$</td>
<td>.64</td>
<td>.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$u_{ii}t_t$</td>
<td>.02</td>
<td>.15</td>
<td>-.14</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>.08</td>
<td>.28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05*
The intercept coefficient represented the number of FQHC FTE mental health staff in 2012 for non-Medicaid expansion states. The value of $e^{3.63}$ was equal to approximately 37.71 FTE mental health staff annually in 2012 per non-Medicaid expansion state. It should be noted that because model accounted for multiple complex factors, its estimates may be different than if calculated outside of the model utilizing raw data. The true value of the model lies in its designations of statistical significance. Additionally, it is important to note that the unrounded coefficients were input to calculate the estimates of the number of FTE mental health staff.

The coefficient $t_e$ represented the un-exponentiated estimated multiplicative rate of change (i.e., the slope) in the number of FTE mental health staff in non-Medicaid expansion states in 2012-2013 (i.e., before Medicaid expansion). The value of $e^{0.08}$ was equal to approximately 1.09. From 2012-2013 in non-Medicaid expansion states, the average change in the number of FTE mental health staff was a multiple of 1.09. Meaning that there were 1.09 times more FTE mental health staff each year before Medicaid expansion (from 2012 to 2013) in the non-Medicaid expansion states.

The coefficient $G_j$ represented the un-exponentiated estimated multiplicative difference prior to Medicaid expansion (from 2012-2013) in the number of FTE mental health staff between Medicaid expansion states and non-Medicaid expansion states. The value of $e^{-46}$ was equal to approximately 1.58. Prior to Medicaid expansion, there were 1.58 times more FTE mental health staff in Medicaid expansion states than in non-Medicaid expansion states.
The coefficient $I_t$ represented the un-exponentiated estimated multiplicative change in the number of FTE mental health staff in non-Medicaid expansion states from 2012-13 to 2014-15. The value of $e^{0.009}$ was equal to approximately 1.01. From pre-Medicaid expansion to post-Medicaid expansion, there was a predicted average of 1.01 times more FTE mental health staff in non-Medicaid expansion states.

The coefficient $G_j/I_t$ represented the required adjustment for Medicaid expansion states to the un-exponentiated multiplicative change in the number of FTE mental health staff from pre-Medicaid expansion (2012-2013) to post-Medicaid expansion (2014, the start of Medicaid expansion) in non-Medicaid expansion states. This was an important difference-in-differences coefficient of interest. The value of $e^{0.04}$ was equal to approximately 1.04. On average, the required adjustment in Medicaid expansion states was 4% greater than the required adjustment in non-Medicaid expansion states. The value of $e^{0.009+.04}$ was equal to the value of $e^{0.05}$, which was equal to approximately 1.05. For Medicaid expansion states, there was on average a 5% adjustment in the number of FTE mental health staff from the model’s predictions based on 2012-2013 data to the actual 2014 data. This can be compared to the average adjustment required for non-Medicaid expansion states. For non-Medicaid expansion states, there was on average a 1% adjustment in the number of FTE mental health staff from the model’s predictions based on 2012-2013 data to the actual 2014 data. In summary, this coefficient indicated that there was not a significantly greater increase in the number of FTE mental health visits in 2014 in Medicaid expansion states or in non-Medicaid expansion states (using the model’s predictions based on 2012-2013 data for comparison).
The coefficient $t_t G_j$ represented the adjustment to the rate of change (in the number of FTE mental health staff) in Medicaid expansion states in 2012-2013 (i.e., before Medicaid expansion), as compared to non-Medicaid expansion states. The value of $e^{0.02}$ was equal to approximately 1.02. There was 1.02 times the growth in FTE mental health staff in the pre-Medicaid expansion years for Medicaid expansion states as compared to non-Medicaid expansion states.

The coefficient $t_t l_t$ represented the un-exponentiated estimated multiplicative change in the rate of change in the number of FTE mental health staff for non-Medicaid expansion states from 2012-13 to 2014-15. The value of $e^{-12}$ was equal to approximately 1.13. There was 1.13 times the annual growth in FTE mental health staff in the post-Medicaid expansion years than in the pre-Medicaid expansion years for non-Medicaid expansion states. Meaning that the FTE mental health staff in non-Medicaid expansion states grew 1.13 times faster in the post-Medicaid expansion years than the pre-Medicaid expansion years.

The coefficient $t_t G_j l_t$ represented the required adjustment for Medicaid expansion states to the un-exponentiated multiplicative yearly rate of change in the number of FTE mental health staff from pre-Medicaid expansion to post-Medicaid expansion in non-Medicaid expansion states. This was the primary difference-in-differences coefficient of interest. The value of $e^{-13}$ was equal to approximately 1.14. Medicaid expansion states experienced 1.14 times the growth in FTE mental health staff from pre-Medicaid expansion to post-Medicaid expansion than was seen in non-Medicaid expansion states. However, this result was not significant. In summary, Medicaid expansion states did not
have a significantly greater rate of change in FTE mental health staff after Medicaid expansion, as compared to states that chose not to expand Medicaid.

**Correlational Study: Two-Sample Test of Proportions**

The purpose of this portion of the study was to explore the relationship between the inclusion of LPCs as billable providers under PPS and the proportion of LPCs employed at FQHCs. Research Question Three question assessed whether the proportion of LPCs employed at FQHCs was significantly different between the two groups of states: (a) states approving LPCs as billable FQHC mental health providers under PPS; and, (b) states not approving LPCs as billable FQHC mental health providers under PPS. The proportion was calculated as the number of LPCs divided by the total number of LPCs plus LCSWs.

**Hypothesis Testing: Research Question Three**

As described in Chapter III, a two-sample test of proportions was utilized to answer this question via R software program version 3.1.1. The correlational study’s aggregated employment data, including response rates, descriptive statistics, and the outcome of the two-sample test of proportions are presented.

**Aggregated employment data and descriptive statistics.** In total, of the 230 FQHCs identified to be surveyed in both groups of states, 138 FQHCs responded, which resulted in an overall response rate of 60%. In states approving LPCs as billable FQHC mental health providers under PPS, 66 of 107 FQHCs responded, which resulted in a response rate of 61.68%. In states not approving LPCs as billable FQHC mental health
providers under PPS, 72 of 123 FQHCs responded, which resulted in a response rate of 58.54%.

The following Tables 17 and 18 contain the aggregated survey responses by state, divided into the two groups of states: (a) states approving LPCs as billable FQHC mental health providers under PPS (see Table 17); and, (b) states not approving LPCs as billable FQHC mental health providers under PPS (see Table 18). Descriptive statistics are also provided below.

Table 17

*States Approving LPCs as Billable FQHC Mental Health Providers Under PPS*

<table>
<thead>
<tr>
<th>State</th>
<th>Number of Surveyed FQHCs</th>
<th>Number of Responding FQHCs</th>
<th>Number of LPCs Employed</th>
<th>Number of LCSWs Employed</th>
<th>Total Number of LPCs and LCSWs Employed</th>
<th>Proportion of LPCs Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illinois</td>
<td>28</td>
<td>18</td>
<td>53.45</td>
<td>84.45</td>
<td>137.90</td>
<td>.39</td>
</tr>
<tr>
<td>Ohio</td>
<td>22</td>
<td>20</td>
<td>23.52</td>
<td>52.30</td>
<td>75.82</td>
<td>.31</td>
</tr>
<tr>
<td>Oregon</td>
<td>25</td>
<td>15</td>
<td>33.77</td>
<td>41.43</td>
<td>75.20</td>
<td>.45</td>
</tr>
<tr>
<td>Washington</td>
<td>32</td>
<td>13</td>
<td>169.22</td>
<td>27.62</td>
<td>196.84</td>
<td>.86</td>
</tr>
<tr>
<td>Totals</td>
<td>107</td>
<td>66</td>
<td>282.39</td>
<td>206.78</td>
<td>489.17</td>
<td>.58</td>
</tr>
</tbody>
</table>

In states approving LPCs as billable FQHC mental health providers under PPS, the range of proportions of LPCs was .31 to .86, with a total proportion of .58 at the 66 responding FQHCs. In this group of states, the median proportion of LPCs was .42; there was no mode for these data; and, the standard deviation was .25. There were a total of 489.17 FTE LPCs and LCSWs employed at the responding FQHCs in this group of states—282.39 LPCs and 206.78 LCSWs.
In the individual FQHCs located in each of the states where LPCs are billable, the mean number of FTE LPCs was 4.28, while the mean number of FTE LCSWs employed in an individual FQHC was 3.13. Specifically, in Illinois, the mean number of FTE LPCs was 2.97 and the mean number of FTE LCSWs was 4.69; in Ohio, the mean number of FTE LPCs was 1.18 and the mean number of FTE LCSWs was 2.62; in Oregon, the mean number of FTE LPCs was 2.25 and the mean number of FTE LCSWs was 2.76; and, in Washington, the mean number of FTE LPCs was 13.02 and the mean number of FTE LCSWs was 2.12.

Table 18

States Not Approving LPCs As Billable FQHC Mental Health Providers Under PPS

<table>
<thead>
<tr>
<th>State</th>
<th>Number of Surveyed FQHCs</th>
<th>Number of Responding FQHCs</th>
<th>Number of LPCs Employed</th>
<th>Number of LCSWs Employed</th>
<th>Total Number of LPCs and LCSWs Employed</th>
<th>Proportion of LPCs Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>8</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Hawaii</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td>11</td>
<td>28.71</td>
<td>.27</td>
</tr>
<tr>
<td>Minnesota</td>
<td>11</td>
<td>7</td>
<td>12.80</td>
<td>15.91</td>
<td>28.71</td>
<td>.45</td>
</tr>
<tr>
<td>Nevada</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>11</td>
<td>.36</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>10</td>
<td>7</td>
<td>11.30</td>
<td>14.30</td>
<td>25.60</td>
<td>.44</td>
</tr>
<tr>
<td>New Jersey</td>
<td>12</td>
<td>5</td>
<td>2</td>
<td>14.40</td>
<td>16.40</td>
<td>.12</td>
</tr>
<tr>
<td>New York</td>
<td>50</td>
<td>24</td>
<td>34.94</td>
<td>185.54</td>
<td>220.48</td>
<td>.16</td>
</tr>
<tr>
<td>Vermont</td>
<td>10</td>
<td>7</td>
<td>10.60</td>
<td>31.22</td>
<td>41.82</td>
<td>.25</td>
</tr>
<tr>
<td>West Virginia</td>
<td>13</td>
<td>10</td>
<td>7.40</td>
<td>14</td>
<td>21.4</td>
<td>.35</td>
</tr>
<tr>
<td>Totals</td>
<td>123</td>
<td>72</td>
<td>87.04</td>
<td>301.37</td>
<td>388.41</td>
<td>.22</td>
</tr>
</tbody>
</table>

In states not approving LPCs as billable FQHC mental health providers under PPS, the range of proportions of LPCs was 0 to .45, with a total proportion of .22 at the 72 responding FQHCs. In this group of states, the median proportion of LPCs was .27;
there was no mode for these data; and, the standard deviation was .15. There were a total of 388.41 FTE LPCs and LCSWs employed at the responding FQHCs in this group of states—87.04 LPCs and 301.37 LCSWs.

In the individual FQHCs located in each of the states where LPCs are billable, the mean number of FTE LPCs was 1.21, while the mean number of FTE LCSWs employed in an individual FQHC was 4.19. Specifically, in Arkansas, the mean number of FTE LPCs was 0 and the mean number of FTE LCSWs was 2.67 in the responding FQHCs; in Hawaii, the mean number of FTE LPCs was 0.5 and the mean number of FTE LCSWs was 1.38; in Minnesota, the mean number of FTE LPCs was 1.83 and the mean number of FTE LCSWs was 2.27; in Nevada, the mean number of FTE LPCs was 4 and the mean number of FTE LCSWs was 7; in New Hampshire, the mean number of FTE LPCs was 1.61 and the mean number of FTE LCSWs was 2.04; in New Jersey, the mean number of FTE LPCs was .40 and the mean number of FTE LCSWs was 2.88; in New York, the mean number of FTE LPCs was 1.46 and the mean number of FTE LCSWs was 7.73; in Vermont, the mean number of FTE LPCs was 1.51 and the mean number of FTE LCSWs was 4.46; and, in West Virginia, the mean number of FTE LPCs was 0.74 and the mean number of FTE LCSWs was 1.40.

Results of the two-sample test of proportions. In summary, there was support for Hypothesis Three, as the results of the analysis showed that there was a significantly higher proportion of LPCs employed at FQHCs in states approving LPCs as billable FQHC mental health providers under PPS. As predicted there was a higher number of LCSWs employed at FQHCs in both groups of states. Still, the proportion of LPCs
employed at FQHCs was significantly higher in states approving LPCs as billable FQHC mental health providers under PPS.

As described in Chapter III, a two-sample test of proportions was utilized to answer this question via R software program version 3.1.1. Implementing $\alpha = .05$, if the test statistic equaled a number greater than 1.96 (i.e., the standard normal result for a one-tailed test), then it was established there were proportionately greater LPCs employed at FQHCs in states approving LPCs as billable FQHC mental health providers under PPS.

Utilizing the above data, the results of the $Z$-test were as follows:

$Z = 4.24, \rho = .00001$

Because the $Z$-test equaled 4.24, which is higher than 1.96, and $p < .001$ (i.e., less than the chosen $\alpha = .05$), there was sufficient evidence to reject the null hypothesis. Given the small p-value, it was evident that the sample size was sufficient because there was only a very small likelihood (i.e., .001% or 1 in 100,000) of committing a Type I error (incorrectly rejecting the null hypothesis). Cohen’s $h$ was utilized to calculate the effect size, because it is a measure of distance between two proportions (Cohen, 1988). Referring to Table 6.2.2 in Cohen (1988), the effect size was calculated as .76. This value has the same interpretation of Cohen’s $d$, so the result was classified as a large effect size (Cohen, 1988).

**Conclusion**

In this chapter, the results of the current study were reported. Descriptions of the sample, tests of normality, and the results of the analyses were presented. Hypothesis One was not supported because the data illustrated the opposite significant result than
predicted. Hypothesis Two was not supported. Hypothesis Three was fully supported.

In the next chapter, the data are interpreted in the context of the post-Affordable Care Act policy landscape, and the limitations and implications for counselor professional advocacy are discussed.
CHAPTER V

DISCUSSION

Introduction

Chapter V addresses the practical implications, or real-world meaning, extracted from the current study. This chapter, at its core, considers how this study can be used to support the advocacy efforts of the counseling profession in the dynamic health care landscape. This chapter is organized under five section headings: (a) Discussion of Quasi-Experimental Study: Count Model Difference-in-Differences Analyses; (b) Discussion of Correlational Study: Survey and Two-Sample Test of Proportions; (c) Discussion of Limitations; (d) Suggestions for Future Research; and, (e) Conclusion.

The health care landscape in the United States, including the delivery of mental health services, has undergone a monumental transformation over the past six years because of the reform policies enacted in the ACA. The recent election of President Trump combined with the Republican-controlled Congress promises another sea change related to health care. Whether and to what extent the ACA can be undone quickly remains to be seen, and some of the more popular provisions may remain in effect. Moreover, regardless of the ACA’s future, because Congress has protected the financial viability of FQHCs since the 1960s, and the FQHC model will likely continue to be the safety net health care provider for uninsured and underinsured individuals and families. There is also more support on both state and federal levels for new approaches to address
mental health issues, in part because of disturbing trends in gun violence, alcohol and drug abuse, and social media bullying.

Counselors are vital mental health providers within this shifting landscape, and it is important for the counseling profession to understand the impact of these new policy changes upon the utilization of mental health services and the employment of mental health professionals. This study clearly demonstrated the substantial increases in the number of mental health visits and FTE mental health staff at health centers across the nation from 2012-2015. According to the study’s findings, however, Medicaid expansion did not result in a significantly higher rate of change in the number of mental health visits and FTE mental health staff. In fact, non-Medicaid expansion states experienced a significantly higher rate of change in the number of mental health visits. Thus, the practical implications of this study relate to the increased health center employment opportunities for mental health professionals, regardless of the state’s Medicaid expansion policy.

Yet, likely because of gaps in federal and state law related to the Medicaid Prospective Payment System, the reimbursement methodology used in FQHCs, counselors do not experience the same employment opportunities as social workers. Social workers are recognized under federal law as billable mental health providers in federally-funded health care programs such as Medicaid and Medicare. Counselors do not have the same protected federal status as social workers and must rely on state policy to determine whether they are able to generate a PPS billable encounter at FQHCs. The current study demonstrated the unequivocal relationship between a state’s decision to
approve or not approve counselors as billable PPS providers and the employment of counselors at FQHCs. It is clear that counselor advocacy efforts are needed on state and federal levels to seek changes in reimbursement protocols, specifically seeking equal recognition of LPCs as billable providers. It is essential for the counseling profession to advocate for its place at the table and advance policy changes that will promote the role of counselors in the dynamic health care landscape of the U.S.

Discussion of Quasi-Experimental Study: Count Model Difference-in-Differences Analyses

The discussion of the quasi-experimental study’s findings in the context of previous literature and applications to public policy includes the following sections: (a) Summary Explanation of Findings; (b) Framing Findings in Previous Literature; (c) Detailed Description of Possible Reasons for Findings; and, (d) Practical Implications of the Quasi-Experimental Study. Because the possible reasons for the models’ findings are complex and overlapping, this section of Chapter V will begin with a summary followed by a more detailed description of the possible reasons for these intriguing results. The discussion of Research Question One and Research Question Two is combined due to the shared implications of their results.

Summary Explanation of Findings

Overall, the number of mental health visits and FTE mental health staff increased substantially at FQHCs from 2012 to 2015 (pre- to post-Medicaid expansion) in both groups of states studied (see Tables 7-10 and Tables 12-15). The treatment group of Medicaid expansion states experienced a 40.71% increase in mental health visits and a 54.71% increase in FTE mental health staff at FQHCs from 2012 to 2015 (see Table 10
and Table 15). The control group of non-Medicaid expansion states experienced a 29.63% increase in mental health visits and a 42.37% increase in FTE mental health staff at FQHCs from 2012 to 2015. From a descriptive perspective, it might appear that the outcome variables in Medicaid expansion states increased more than the non-Medicaid expansion states. The difference-in-differences model, however, demonstrates that the non-Medicaid expansion states experienced a significantly greater increase in the rate of change from 2012-2013 to 2014-2015 for the outcome variable of FQHC mental health visits. Contrary to expectations, the results of the count model analyses indicated that Medicaid expansion states did not demonstrate a significantly higher rate of change in the number of mental health visits and FTE mental health staff at FQHCs, comparing 2012-2013 data to 2014-2015 data.

The finding that Medicaid expansion did not significantly increase the number of mental health visits and FTE mental health staff at FQHCs originates from the comparison of the 2012-2013 rate of change to the 2014-2015 rate of change in these outcome variables in the count model difference-in-differences methodology. The steeper rate of change in both variables from 2012-2013 (before the Medicaid expansion effective date of January 1, 2014) played an important role in determining the results. With regards to the utilization of mental health services from 2012-2013, mental health visits were already increasing substantially at FQHCs in Medicaid expansion states prior to the start of Medicaid expansion on January 1, 2014. With regards to employment numbers during the same time frame (2012-2013), mental health staff were already increasing substantially at FQHCs in both groups of states prior to the start of Medicaid
expansion on January 1, 2014. Consequently, the rate of change in mental health visits from 2014-2015 as compared to the baseline 2012-2013 in Medicaid expansion states was not significantly higher than non-Medicaid expansion states (where the rate of change from 2012-2013 was not as steep initially). Consequently, the rate of change in FTE mental health staff from 2014-2015 as compared to the baseline 2012-2013 was not significantly different (higher or lower) between the two groups of states. It should be pointed out that the count model’s reliance upon the 2012-2013 rate of change is an acknowledged limitation of the current study.

Regardless of the unexpected outcomes of the count model difference-in-differences analyses, it is clear that, in both groups of states, the number of mental health visits and FTE mental health staff increased substantially from 2012 to 2015 (see Tables 7-10 and Tables 12-15). So, while this study found that for the years examined (2012-2015), Medicaid expansion did not result in a significantly higher rate of change in mental health service utilization and mental health staff employment at FQHCs, it cannot be overstated the extent to which health centers in both groups of states have undergone major changes in mental health service capacity during this relatively short period of time.

Increases in FQHC mental health service utilization from 2012 to 2013 impacted the models’ designations of significance for Research Question One and Research Question Two. There are many possible reasons for the rapid rate of increase in mental health visits and FTE mental health staff in 2012-2013, prior to the start of Medicaid expansion. For one, funding increases as a result of the ACA may have encouraged the
hiring of additional staff in order to prepare to expand access to mental health services. Most FQHCs during the same time frame were also undergoing a major shift towards an integrated delivery model, the patient-centered medical home model (PCMH), to improve access to mental health care, improve quality of care, and lower costs. As discussed in Chapter II, in 2009, less than 1% of FQHCs were qualified as PCMHs, whereas in 2014, 61% of FQHCs were PCMHs (NACHC, 2014c). This conversion to the PCMH model could have contributed to steeper increases in FQHC mental health service utilization from 2012 to 2013. Lastly, there may be other unknown factors, such as decreasing stigma surrounding seeking mental health treatment or increasing rates of mental health disorders, that contributed to steeper increases in mental health utilization at FQHCs from 2012 to 2013. The section below provides a more detailed description of what occurred at FQHCs during the years in question in both Medicaid expansion and non-Medicaid expansion states.

**Framing Findings in Previous Literature**

The literature presented in Chapter II initially suggested that mental health service utilization and staffing likely would increase at FQHCs in Medicaid expansion states. While these increases did occur in the current study overall from 2012 to 2015, the hypotheses were ultimately incorrect because the rates of change in the outcome variables were not significantly greater in Medicaid expansion states versus non-Medicaid expansion states. Upon further review of the previous literature, it is evident that studies using non-count model statistical methods provided a foundation for the hypotheses. The current study contributes significantly to the limited available literature on mental health
service utilization at FQHCs following Medicaid policy changes, because it utilizes a count model difference-in-differences design, which is the appropriate method for the non-normal, repeated-measures nature of the data.

As established, the previous literature supported the basic concept that increased insurance coverage would result in increased utilization of health care services, including mental health services. Han et al. (2015) estimated that those with serious mental illness who obtained Medicaid coverage were 30.1% more likely to receive mental health treatment as compared to their uninsured counterparts. Saloner and Lê Cook (2014) found that the ACA’s reform allowing dependents aged 19-25 to remain covered on their parents’ health insurance plans increased mental health treatment by 5.3% for young adults aged 18-25 (utilizing data from the 2008-12 National Survey of Drug Use and Health). These studies (and others reviewed in Chapter II) suggested that expanding access to Medicaid coverage would result in increased mental health visits and increased employment of mental health staff. The research hypotheses were grounded in this aspect of the literature.

However, as previously noted, the research hypotheses were not supported. Upon returning to the literature to contextualize the findings from the current study, the research of Golberstein and Gonzales (2015) provides some corroboration for the results of the first count model difference-in-differences analysis related to the utilization of mental health services. Focusing on Medicaid expansion, Golberstein and Gonzales (2015) concluded that Medicaid expansion significantly increased health insurance coverage and reduced out-of-pocket spending on mental health services for low-
socioeconomic status adults. Importantly to the current study, the authors found that expanding Medicaid eligibility did not significantly escalate the utilization of mental health services. The conclusions of Golberstein and Gonzales (2015) are related to the findings of this study because a large percentage of FQHC patients are Medicaid insured. In 2015, 56.02% of FQHC patients in the treatment group of Medicaid expansion states were Medicaid insured; in 2015, 32.73% of FQHC patients in the control group of non-Medicaid expansion states were Medicaid insured (HHS, HRSA, BPHC, Health Center Program, 2012-2015). Golberstein and Gonzales (2015), however, did not utilize the statistical methodology of this study and did not focus specifically on FQHCs.

The current quasi-experimental study’s results can also be compared to the research of Shin, Sharac, and Zur et al. (2015), who did examine FQHCs and compared Medicaid expansion states to non-Medicaid expansion states. These researchers utilized Uniform Data System annual reports and assessed growth in the volume of health center patients and changes in health insurance coverage profile over the decade 2004-2014 and between 2013-2014. According to the research, the percentage of FQHC patients covered by Medicaid from 2013 to 2014 increased 20% (from 44% to 53%) in Medicaid expansion states and only 3% (from 33% to 34%) in non-Medicaid expansion states. Shin, Sharac, and Zur et al. (2015) found that FQHCs in Medicaid expansion states were “significantly more likely” than those in non-Medicaid expansion states to have increased “mental health service capacity since January 2014 (42% versus 35%)” (p. 8). The source for these data were the authors’ analysis of their 2014 Follow-Up Survey of health centers with an overall response rate of 57%. Unfortunately, the article itself provided no
explanation of “mental health service capacity” and no details of the survey questions and responses, so the methodology used to calculate the percentages is unclear. It does not appear that the authors implemented a count model difference-in-differences design used in the current study, which is a more appropriate approach for non-normal, repeated measures data and a model that controls for the fact that some individuals (e.g., individual states) always have higher values than others (e.g., the number of mental health visits will always be higher in Texas as compared to Rhode Island, even though Texas rejected Medicaid expansion and Rhode Island implemented Medicaid expansion on January 1, 2014).

The design of the current study was more akin to the research of DeVoe et al. (2015) discussed in Chapter II. The researchers used Oregon Experiment data to explore the issue of expanded Medicaid coverage on a smaller, state-specific scale and found results similar to the current study. Specifically, the authors implemented Poisson regression models to compare 36-month (2008-2011) usage rates at Oregon community health centers among individuals receiving Medicaid coverage versus those not selected to receive Medicaid coverage. The authors then used instrumental variables analyses to estimate the effect of gaining Medicaid coverage on mental health treatment at community health centers. While the instrumental variables analyses illustrated significantly higher rates of primary care visits for those receiving Medicaid coverage, there was not a significant increase in the utilization of mental health services at community health centers. DeVoe et al.’s (2015) conclusions regarding the lack of significant increase in mental health visits at community health centers among Medicaid
recipients have relevance for the current study. The authors noted that they only assessed services provided in the primary care setting and that severe mental health conditions prompting referral to an outside clinic were excluded from the data. FQHCs are not necessarily equipped to handle this clients with severe mental illness on an outpatient basis, and the annual Uniform Data System reports submitted by FQHCs exclude referrals for outside mental health services. Thus, the current study relying on the annual Uniform Data System reports for 2012-2015 also excludes data on mental health referrals. This omission is a possible limitation of the current study.

**Detailed Description of Possible Reasons for Findings**

As noted, the possible reasons for the results of the count model difference-in-differences analyses are multifaceted. This section contains a more detailed explanation of the following possible reasons for the findings: (a) initial steeper increases in 2012-2013 as compared to 2014-2015 for the outcome variables; (b) funding increases provided by the ACA to all FQHCs; and, (c) the insurance profile mix of FQHC patients, particularly Medicaid versus uninsured.

**Initial steeper increases in 2012-2013 as compared to 2014-2015 for the outcome variables.** The critical influence of 2012-2013 data on the model warrants a more detailed description. For the first count model difference-in-differences analysis related to the number of mental health visits at FQHCs, the coefficients $t_t$ and $t_t G_j$ represent the model’s estimates of the rate of change in mental health visits. The model found that from 2012-2013 in non-Medicaid expansion states, the rate of change in the number of mental health visits was a multiple of 1.06 ($t_t$). For Medicaid expansion
states, there was 1.06 ($t_iG_j$; coincidentally, the same number) times the growth in mental health visits above and beyond the non-Medicaid expansion states from 2012-2013.

Essentially, because the rate of change in Medicaid expansion states was already so steep from 2012-2013, it was more difficult for the model to find significance in the difference between the rate of change from 2012-2013 as compared to 2014-2015 in Medicaid expansion states. This factor also may have amplified the significance of the findings for non-Medicaid expansion states, because the model compares the differences in the rates of change between non-Medicaid and Medicaid expansion states.

The outcome of the first count model difference-in-difference analysis is supported by the descriptive statistics related to the annual percentage increases in the number of mental health visits at FQHCs. There was approximately a two-fold percentage increase in mental health visits in Medicaid expansion states as compared to a three-fold percentage increase in non-Medicaid expansion states. According to Table 10, from 2012-2013, in the treatment group of Medicaid expansion states, there was an 8.81% increase in the number of mental health visits, while in the control group of non-Medicaid expansion states, there was only a 4.03% increase. From 2014-2015, in the treatment group of Medicaid expansion states, there was a 16.90% increase in the number of mental health visits, but in the control group of non-Medicaid expansion states, there was an 11.96% increase. Thus, the percentage increases set forth in Table 10 support the outcome of the first count model difference-in-differences analysis: the control group of non-Medicaid expansion states experienced a significantly higher rate of change in the number of mental health visits at FQHCs as compared to the treatment group of Medicaid expansion states.
expansion states from 2012-2013 to 2014-2015. Though significant, it is important to recognize that the difference in the rate of change between non-Medicaid expansion states and Medicaid expansion states was relatively small ($t_t G_j I_t = -.005$). In other words, Medicaid expansion states experienced relatively 99.5% of the rate of change seen in non-Medicaid expansion states during this time period.

Related to the second count model difference-in-differences analysis, it is evident that FTE mental health staff were already substantially increasing at FQHCs in both Medicaid expansion and non-Medicaid expansion states prior to the start of Medicaid expansion on January 1, 2014. The model’s estimates of the rate of change in FTE mental health staff are also represented in the coefficients $t_t$ and $t_t G_j$. The model found that from 2012-2013 in non-Medicaid expansion states, the average change in the number of FTE mental health staff was a multiple of 1.09 ($t_t$). For Medicaid expansion states, there was 1.02 times the growth in FTE mental health staff above and beyond the non-Medicaid expansion states from 2012-2013 ($t_t G_j$). Essentially, because the rate of change in both non-Medicaid expansion states and Medicaid expansion states was already so steep from 2012-2013, it was more difficult for the model to find significance in the difference between the rate of change from 2012-2013 as compared to 2014-2015 in the two groups of states.

The outcome of the second count model difference-in-difference analysis is also supported by the descriptive statistics related to the annual percentage increases in the number of FTE mental health staff at FQHCs. Examining the number of FTE mental health staff (see Table 15) from 2012-2013 in the treatment group of Medicaid expansion
states, the number of FTE mental health staff increased by 10.93%, while in the control group of non-Medicaid expansion states, staff increased by 8.68% (both initial percentages are relatively high and close in value). From 2014-2015, in the treatment group of Medicaid expansion states, number of FTE mental health staff increased by 25.67%, while in the control group of non-Medicaid expansion states, the increase was 14.33%. The percentage difference from 2012-2013 to 2014-2015 appears higher, at first glance, for Medicaid expansion states (from 10.93% to 25.67%, a 2.35-fold percentage increase) as compared to non-Medicaid expansion states (from 8.68% to 14.33%, a 1.65-fold percentage increase). Closer examination of the increase that occurred from 2013-2014 reveals that non-Medicaid expansion states experienced a much higher percentage increase (8.86% to 14.58%) as compared to Medicaid expansion states (10.93% to 10.98%). Because the model takes into account the adjustment occurring at year 2014 (in comparison to 2012-2013 data), the 2014 data may have essentially canceled out any potentially significant findings for Medicaid expansion states. Ultimately, it is important to recognize that the model’s value lies in its designations of significance. The results of the second count model difference-in-differences analysis indicated that there was not a significant rate of change increase in the number of FTE mental health staff at FQHCs in Medicaid expansion states as compared to non-Medicaid expansion states.

**Funding increases provided by the Affordable Care Act to all Federally Qualified Health Centers.** Another potential explanation for the quasi-experimental study’s results pertains to the increased funding of all FQHCs (i.e., health centers in both groups of states) enacted by the ACA starting in 2010. Congress understood that the
ACA’s expansion of health insurance coverage would likely increase utilization of all health services, including mental health services, and recognized the role of FQHCs as a vital solution to meet the increased demand (Shin, Sharac, Barber et al., 2015). Thus, the ACA provided an additional $11 billion in dedicated funding to support FQHCs over five years (2010 to 2015), with $9.5 billion targeted to “support ongoing health center operations; create new health center sites in medically underserved areas; expand preventive and primary health care services, including oral health, behavioral health, pharmacy, and/or enabling services, at existing health center sites” (BPHC, n.d., p. 2).

To address the budget shortfall related to the termination of funding in 2015 (known as the primary care cliff), Congress passed a bill in April 2015 that included two years of continued discretionary funding (at $7.2 billion total) for FQHCs (NACHC, n.d.-a).

Within the parameters of the current study, there was no way to account for the effects of these funding increases upon the variables of interest (especially upon 2012-2013 FQHC data) in order to isolate the effects of Medicaid expansion.

The current study did not determine whether the ACA’s increased funding of FQHCs was distributed uniformly across all FQHCs, based on patient population or some other health outcome metrics, and did not determine how much of the increased funding was used by individual FQHCs to expand the provision of mental health services. It is possible that FQHCs in the control group of non-Medicaid expansion states used these funds at an accelerated rate to expand the provision of mental health services as compared to the treatment group of Medicaid expansion states. The ACA funding allocated by Congress (2010-2015) may have been disbursed in amounts and timeframes
that skewed the rate of change calculation for mental health visits in the control group of states for 2012-2013. This factor may have interfered with the model’s predictions of rates of change. Nevertheless, the annual Uniform Data System reports from 2012-2015 showing substantial percentage increases in the number of mental health visits and mental health staff support the conclusion that the delivery of mental health services at FQHCs in both groups of states has benefitted from the enhanced funding provided by Congress to support all FQHCs.

**Insurance profile mix of Federally Qualified Health Center patients.** The results of the current study should also be considered in view of the insurance profiles of FQHC patients. FQHCs provide primary care services to a diverse payer mix of patients: Medicaid, Medicare, private commercial insurance, other public health insurance programs, and uninsured. FQHCs are required to provide health care services to individuals regardless of insurance status or lack of insurance (Lefkowitz, 2007).

This study focused on the impact of Medicaid expansion, and the hypotheses for Research Questions One and Two assumed that the number of Medicaid patients seen at FQHCs would substantially increase in Medicaid expansion states as compared to non-Medicaid expansion states. Partly because of the difficulty in determining the insurance coverage information for each patient receiving mental health services at FQHCs, the current study did not consider whether changes in insurance profile mix, particularly the percentages of Medicaid and uninsured, may account for the findings. Because it is not possible to know whether more Medicaid patients sought out mental health services, the insurance profile mix of FQHC patients provides only a limited explanation of the
results of the current study. The annual Uniform Data System reports only provide the insurance profile of all patients aggregated at the state level, regardless of service provided (e.g., primary care visit, mental health visit, prenatal counseling, etc.), but it is still useful to examine these data descriptively (HHS, HRSA, BPHC, Health Center Program, 2012-2015).

In both groups of states included in the current study, the number of total patients and the number of Medicaid patients increased from 2012 to 2015. In both groups of states, the number of uninsured patients declined from 2012 to 2015. As expected, the percentage of Medicaid patients grew more in the treatment group of Medicaid expansion states (+30.16%) as compared to the control group of non-Medicaid expansion states (+7.66%). The percentage of uninsured patients was expected to substantially decline in the treatment group of Medicaid expansion states, and indeed there was a -40.78% decline (from 32.91% to 19.49%). Also as expected, the percentage of uninsured patients was lower in the treatment group of Medicaid expansion states compared to the control group of non-Medicaid expansion states (e.g., 19.49% as compared to 36.75% for 2015). Not so obvious is the decline (-17.43%) in the percentage of uninsured in non-Medicaid expansion states (from 44.51% to 36.75%) from 2012-2015. It is unclear why FQHCs in non-Medicaid expansion states would experience a decline in the percentage of uninsured patients while increasing the total number of patients, especially since the states’ Medicaid programs remained the same. The implementation of the ACA’s premium subsidies and tax credits to assist individuals and families to obtain health insurance coverage may have contributed to this decline. The research of Shin, Sharac, and Zur et
al. (2015) focused on the years 2013-2014 supports this conclusion; in non-Medicaid expansion states, the percentage of private insurance patients grew from 15% to 17%, whereas in Medicaid expansion states, the percentage of private insurance patients grew from 14% to 15%. Because private insurance typically reimburses at higher rates than public insurance, any increase in the percentage of private pay patients would improve the financial stability of FQHCs.

In summary, for 2012-2015, the group of non-Medicaid expansion states increased the number of mental health visits (+29.63%) and the number of FTE mental health staff (+42.37%) under the constraints of overall total patient population growth (+11.61%) and minimal growth in Medicaid insured patients with enhanced PPS reimbursement (+7.66%). Most likely, the decline in the percentage of uninsured improved the financial outlook of FQHCs in non-Medicaid expansion states (-17.43%), especially if the FQHCs are seeing more Medicare, Medicaid, and private commercial insured patients. It is reasonable to assume that these FQHCs have been able to expand utilization of mental health services and FTE mental health staff because FQHC administrators are adept at balancing reimbursement sources, providing outreach and enrollment assistance, and aggressively pursuing ACA funding and other grant opportunities (Shin, Sharac, and Zur et al., 2015). Moreover, as evidenced by the substantial increases in the number of mental health visits and FQHC mental health staff in both groups of states, the ACA’s enhanced funding to all FQHCs has strengthened the subsidies used to cover the cost of providing free or reduced cost care to uninsured patients.
Practical Implications of the Quasi-Experimental Study

It is essential to understand the results of the current quasi-experimental study within the context of the mission of FQHCs: to serve all patients seeking care, regardless of ability to pay. While FQHCs must work within budgetary constraints, administrators at FQHCs employ many strategies in order to provide services to all in need. This study illustrates that the provision of mental health services at FQHCs has substantially increased from 2012 to 2015. Recent policy changes, such as the ACA’s $11 billion in increased funding and the transition of FQCHs to the patient-centered medical home model, likely have contributed to this increase. Moreover, Medicaid expansion, though not deemed statistically significant by the model, has also contributed to practically significant increases in the number of mental health visits and FTE mental health staff. From 2012 to 2015, the total number of mental health visits at FQHCs increased from approximately 5.3 million per year to 7.3 million per year nationwide (HHS, HRSA, BPHC, Health Center Program, 2012-2015). From 2012 to 2015, the total number of FTE mental health staff employed at FQHCs increased from approximately 5,200 to 7,800 per year nationwide (HHS, HRSA, BPHC, Health Center Program, 2012-2015). Given the economic cost involved, the staff hours demanded, and the benefit to individual patients seeking services, these increases are practically significant.

In view of the election of President Trump and a Republican-controlled Congress, policies that assist FQHCs in fulfilling their mission to serve all patients face uncertain futures. In particular, the potential for sustaining Medicaid expansion and recent increases in funding could be limited. Any repeal of the ACA’s Medicaid expansion
provision will diminish a critical funding stream to FQHCs (PMG, 2017). From 2010 to 2015, Medicaid expansion states’ payment-per-visit has grown at a much faster rate than that of non-Medicaid expansion states. For example, the payment-per-visit in Kentucky (a Medicaid expansion state) was $107 in 2010 and $153 in 2015; in Texas (a non-Medicaid expansion state), the value was $79 in 2010 and $102 in 2015. Should the ACA undergo major changes that reduce such funding sources, the negative effect on FQHCs’ budgets will be greater in Medicaid expansion states (PMG, 2017).

Whether there will be any impact on patients at FQHCs, particularly in Medicaid expansion states, is unclear. The ACA’s $11 billion in funding increases and subsequent Congressional budget approvals totaling $7.2 billion to avert the so-called primary care cliff have assisted FQHCs in increasing the provision of health care services, including mental health services (NACHC, n.d.-a). As the current study shows that demand for mental health services at FQHCs has increased substantially, it is highly unlikely that FQHCs, without these increased federal funds, will be able to provide this same level of care to all patients seeking care, regardless of ability to pay. PMG, a consulting firm for FQHCs specializing in revenue and budgetary concerns, published “A Look in the FQHC Crystal Ball…Predictions for 2017 and Beyond,” and it includes the following statement:

While health organizations [FQHCs] nationally have a more-diversified revenue stream than five years ago, many count on federal funding for over 30 percent (and sometimes much more) of total annual payments. Passage of a bill to avert the fiscal cliff drop-off of funding for FQHCs in the short term is expected, but the longer-term prospects are still clouded by uncertainty based on recent comments out of Washington (para. 22).

In the coming months, FQHC administrators and employees will be anxiously awaiting news of any policy changes. FQHCs have faced significant challenges throughout their
history, but their importance as a model of integrated health care delivery has continued to expand decade after decade, despite political shifts (Lefkowitz, 2007).

The results of the current quasi-experimental study prove that FQHCs are an important and increasing part of the safety net mental health care system for Americans in both Medicaid expansion and non-Medicaid expansion states. The argument for preserving policies that assist FQHCs in serving all patients, regardless of ability to pay, is strengthened by numerous studies that have shown that FQHCs lower the utilization of emergency rooms and the number of costly hospital admissions and specialty referrals (Hennessy, 2013). The White House Office of Management and Budget rated FQHCs as one of the most effective federal programs, generating over $24 billion in health care savings annually (Hennessy, 2013). Limiting funding to FQHCs and inhibiting their ability to provide services could lead to a greater increase in costs to other providers. Future Congressional action should respect the valuable role of FQHCs in the provision of needed mental health services to the uninsured, Medicaid-insured, and medically-underserved, by continuing to provide the necessary federal funding.

**Specific Implications for Counselor Professional Advocacy**

For the counseling profession, the primary implications of the quasi-experimental study relate to counselor awareness of the increased employment opportunities for mental health professionals. The results of the quasi-experimental study indicate that the number of FTE mental health staff positions at FQHCs have grown regardless of location (i.e., Medicaid expansion states and non-Medicaid expansion states). Congress’s recent continuation of increased FQHC funding suggests that the employment opportunities for
mental health professionals also will continue to increase in the future. Congress has also enacted the 21st Century Cures Act on December 7, 2016, that further strengthens mental health parity requirements. This new legislation will influence the provision of mental health services and employment of mental health professionals. Thus, even if Congress repeals the ACA, it appears that congressional support for FQHCs and PPS reimbursement will continue, especially since FQHCs provide over 96 million health care visits annually and provide health care, including mental health services, to over 24 million Americans annually.

Unfortunately for the counseling profession, despite the demonstrated increases in mental health staff positions at FQHCs, the results of the correlational study indicate that counselors will be considered equitably for these employment opportunities only when LPCs are eligible to generate the enhanced PPS reimbursement similar to LCSWs. Lobbying efforts should be focused on demonstrating parity with other master’s-level mental health professionals and ensuring that such parity is reflected in laws and regulations governing reimbursement.

**Discussion of Correlational Study: Survey and Two-Sample Test of Proportions**

The primary purpose of the correlational study was to determine whether the proportion of LPCs employed at FQHCs is significantly higher in states approving LPCs as billable PPS mental health providers as compared to states not approving LPCs. It should be recalled that LCSWs are approved in all states as billable PPS mental health providers because of federal law specifically including the profession, along with psychiatrists and psychologists, in Medicaid and Medicare programs (e.g., § 1902(bb) of
the Social Security Act; 42 U.S.C. § 1396d(l)(2)(A); 42 U.S.C. § 1395x(aa)(3)(A); 42 C.F.R. § 405.2450). Unfortunately for the counseling profession, the majority of states, in the absence of federal law, have chosen to exclude LPCs from PPS reimbursement at FQHCs. This correlational study determined that there is a significantly higher proportion of LPCs employed at FQHCs in states approving LPCs as billable mental health providers under PPS.

Findings Regarding the Proportion of Counselors Employed at Federally Qualified Health Centers

The current study hypothesized that in states approving LPCs as billable PPS providers, the proportion of LPCs employed at FQHCs would generally reflect the national statistics for both these master’s-level mental health professionals: 40% LPCs and 60% LCSWs. According to the most current health policy data, there are approximately 120,000 LPCs and 201,368 LCSWs (37% and 63%, respectively; American Counseling Association, 2011; Donaldson et al., 2014). In states not approving LPCs to generate PPS reimbursement, the current study hypothesized that the proportion of LPCs employed at FQHCs would be substantially lower: 20% LPCs and 80% LCSWs.

The results of the current study using the two-sample test of proportions found that in states approving LPCs as billable PPS providers, the total proportion of LPCs employed at FQHCs is .58. In other words, FQHCs in states approving LPCs as billable PPS providers are employing LPCs in greater percentages than found in the general workforce comparing counselors to social workers (American Counseling Association,
In states not approving LPCs, the current study found that the total proportion of LPCs employed at FQHCs is .22. Thus, FQHCs in states not approving LPCs are employing LPCs in lower percentages than found in the general workforce comparing counselors to social workers (American Counseling Association, 2011; Donaldson et al., 2014).

Of course, it is likely that LPCs, similar to other professions, are not distributed evenly nationwide, and certain states may have higher or lower concentrations of counselors compared to social workers, regardless of PPS billing policies. Yet the results of this correlational study clearly indicate that for the two groups of states surveyed, there was a significantly higher proportion of LPCs employed at FQHCs in the group of states approving LPCs as billable PPS providers.

This finding can be compared to the 2010 nationwide survey of FQHCs that identified social workers comprising 31% and counselors comprising 21% of total mental health FTEs, including all types of mental health professionals (Lardiere et al., 2011). Examining only social workers and counselors, Lardiere et al. (2011) found that social workers comprised 59.6% of FTEs, while counselors comprised 40.4% of FTEs at FQHCs nationwide. These percentages are very similar to the hypothesized proportions of the current study for FQHCs in states approving LPCs as billable PPS providers (.4 for LPCs and .6 for LCSWs reflecting the nationwide statistics). Yet in the correlational study, the survey results show that LPCs comprised 57.72% of FTEs and LCSWs comprised 42.27% of FTEs at FQHCs in states approving LPCs as billable PPS providers. The percentages are essentially reversed with LPCs representing the more
predominant type of mental health professional at FQHCs in states approving LPCs as billable PPS providers. Although causal conclusions cannot be drawn, it is evident that there is a significant relationship between state approval of LPCs as billable PPS providers and the employment of LPCs at FQHCs.

**Relationship Between Medicaid Prospective Payment System Billable Provider Status and Employment at Federally Qualified Health Centers**

Prior research has established that overall more LCSWs than LPCs are employed at FQHCs nationwide, and the correlational study herein validates this finding when observing the combined data for both groups of states surveyed (508.15 LCSW FTEs and 369.43 LPC FTEs). Whether there exists a statistical relationship between PPS billable provider status and counselor versus social worker employment at FQHCs had not been previously empirically established. The 2012 Virginia survey of community health centers, however, emphasized the importance of reimbursement; according to the survey, health center administrators preferred to hire a mental health professional with the broadest scope of practice (90%) and the highest level of third-party payment for services (55%; Virginia Health Care Foundation, 2013). The current study provides the empirical evidence of the relationship between Medicaid reimbursement policy and employment practices at FQHCs. In states allowing LPCs to receive the enhanced PPS reimbursement, the correlational study shows that FQHCs employ LPCs at higher percentages than LCSWs (57.72% LPCs and 42.27% LCSWs) even though in terms of workforce statistics, LPCs only represent approximately a 40% share nationwide. In
Washington, the survey results indicated that this trend was particularly pronounced; the proportion of LPCs was .86. These employment statistics favoring counselors are most likely related to the state’s Medicaid reimbursement policies (i.e., LPCs are approved as billable PPS providers). Of course, other factors influence mental health staff hiring decisions at FQHCs, such as the state’s scope of practice regulations for counselors versus social workers, the perception among FQHC administrators of the clinical training standards of counselors versus social workers, and the available population of qualified applicants.

**Practical Implications of Correlational Study for Counselor Professional Advocacy**

The results of the correlational study have profound implications to address the documented mental health workforce shortages at FQHCs and to improve the professional employment opportunities for counselors. Approximately 96.5 million Americans were living in areas with shortages of mental health providers as of September 2014 (Radnofsky, 2015). In the past, recommended state- and national-level strategies for targeting mental health workforce shortages have included expanding scope of practice laws and reimbursement options for FQHC providers. Specifically, the National Academy for State Health Policy report published in 2012 identified two relevant issues that “exacerbate the strain” on so-called “safety net” providers (i.e., FQHCs and their staff) and contribute to mental health workforce shortages: (a) provider scope of practice laws may limit the reach of the existing workforce; and, (b) reimbursement policies restrict who will be hired to provide care (Witgert & Hess, 2012, p. 2). The current study
supports the overall thrust of this report and contributes empirical evidence of a relationship between PPS reimbursement policies and mental health provider employment at FQHCs.

This information could be utilized to advocate in favor of broader scope of practice laws for counselors and the inclusion of counselors as billable FQHC mental health providers under PPS and other reimbursement methodologies in all states. These changes would be mutually beneficial for all stakeholders (FQHCs, counselors, and clients) by reducing mental health workforce shortages at FQHCs, increasing employment opportunities for LPCs, and improving available mental health care options for clients.

Moreover, a two-pronged advocacy approach should be implemented at the federal and state levels. To address the inclusion of LPCs as billable mental health providers under PPS, the counseling profession should advocate that federal law be revised to equate the two professions, LCSWs and LPCs, in terms of federally-funded health care insurance programs. It should be reiterated that while the current study focused solely on the PPS reimbursement methodology for Medicaid patients at FQHCs, this methodology will most likely be revised as more health outcome metrics become available at FQHCs (see section in Chapter II entitled “Value-based payment at FQHCs”). Furthermore, the federal government assists in the funding of many other health care insurance programs (e.g., Medicare, Indian Health Service, Veterans Health Administration). Therefore, it is important for the counseling profession to advocate on the federal level beyond inclusion in the PPS reimbursement scheme at FQHCs.
Regardless of the type of federally-funded reimbursement protocol, LPCs should be included in the list of billable mental health providers similar to the status of LCSWs.

Overhauling federal law to include LPCs as billable mental health providers in federally-funded health care programs is difficult to navigate politically; a review of the efforts of the counseling profession advocating for TRICARE reimbursement, the military health care program for service members, reservists, dependents, and some retirees, is illuminating (National Board for Certified Counselors, 2016). Ultimately, counselors did succeed in becoming recognized by the Department of Defense and TRICARE, but this success came only after more than ten years of targeted advocacy efforts from multiple counseling advocacy organizations (National Board for Certified Counselors, 2016). An effort to include counselors as billable mental health providers in Medicaid PPS or other federal-funded health care programs would again require the coordinated efforts of the American Counseling Association, the American Mental Health Counselors Association, the National Board for Certified Counselors, and the Council for Accreditation of Counseling and Related Educational Programs, in addition to other state and national counseling professional organizations. Maintaining unified training and professional standards for counselors under the leadership of CACREP and the National Board for Certified Counselors appears crucial towards achieving the goal of federal recognition in Medicaid PPS or other programs. TRICARE approved counselors from CACREP-accredited programs with passage of the National Counselor Examination (administered by the National Board for Certified Counselors) to be reimbursable for services as billable mental health providers (Council for Accreditation of Counseling and
Related Educational Programs, 2015). Additionally, the Final Rule for TRICARE states that counseling graduates of regionally accredited institutions with passage of the National Clinical Mental Health Counseling Examination (also administered by the National Board for Certified Counselors) can apply to be billable mental health providers (TRICARE, 2014). The recognition of CACREP as a legitimate accrediting organization and a “respected partner within the community of higher education” and the buttressing of the National Board for Certified Counselors has further legitimized the field of counseling in the battle of public perception at the federal level (Sweeney, 1992, p. 671).

Absent universal changes on the federal level, counselor advocacy can also target state policymakers to revise state Medicaid programs to add LPCs to the list of billable FQHC mental health providers under PPS in that individual state. This route of advocacy may ultimately prove more timely and effective. Although approved by the Centers for Medicare & Medicaid, each state Medicaid program is the responsibility of the state; thus, in the absence of conflicting federal law, each state can determine which professions are billable FQHC mental health providers under Medicaid PPS. The following 22 states (Medicaid expansion states and non-Medicaid expansion states) allow LPCs to generate PPS encounters: Arizona, Florida, Georgia, Idaho, Illinois, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Montana, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, South Carolina, Rhode Island, Texas, Virginia, and Washington (NACHC, 2015a; NACHC, 2015b). In the absence of any federal legislation, counselor advocacy efforts should address the inclusion of LPCs as billable
PPS mental health providers in the Medicaid programs of the remaining states not approving LPCs.

While there is insufficient literature related to the reasons for states’ decisions to include or exclude LPCs as billable PPS mental health providers, state policymakers may have been influenced by historic factors related to the delayed advent of the counseling profession compared to the profession of social workers. Thus, any materials or presentations developed to persuade state policymakers to add LPCs as PPS billable providers should highlight such issues as the equality of high training standards and clinical practices of LPCs as compared to LCSWs (see literature presented in Chapter II).

In summary, with coordinated federal and state advocacy efforts, counselors can successfully achieve the inclusion of LPCs as billable PPS mental health providers at FQHCs. The 1,375 FQHCs nationwide currently employ over 7,000 mental health professionals, and the number of mental health professionals at FQHCs is increasing annually, especially as the patient-centered medical home model becomes the standard of care at FQHCs (HHS, HRSA, BPHC, Health Center Program, 2015). It is important for LPCs to be employed at FQHCs in equitable proportions compared to LCSWs, especially as the delivery model of integrated care becomes more widespread. Without equitable representation, the counseling profession may be overlooked for inclusion in other beneficial reimbursement systems for integrated care settings. Furthermore, it is important for LPCs to be employed at FQHCs because FQHCs can serve as practicum and internship sites for master’s-level counseling students. The survey by Lardiere et al. (2011) revealed that 34.5% of FQHCs serve as training sites for social workers as
compared to only 13.5% for professional counselors. Some counseling programs struggle to identify sufficient practicum and internship sites for their master’s-level students, and FQHC sites could offer an unparalleled opportunity to learn in a dynamic integrated care setting.

From a broader perspective than the current study’s focus on PPS Medicaid reimbursement at FQHCs, it is important for the counseling profession to advocate on the federal level for the inclusion of LPCs as billable mental health providers in federally-funded health care programs, such as Medicaid and Medicare. LPCs and LCSWs are both master’s-level mental health professionals providing mental health services and both professions adhere to high standards of ethics and confidentiality. LPCs and LCSWs should be treated similarly in federally-funded health care programs. Moreover, approval of LPCs as billable mental health providers on the federal level will encourage more favorable reimbursement of LPCs in private commercial insurance plans. Should the U.S. health care system transition to a single-payer system (known as “Medicare for all”), it will be even more essential for counselors to have already received this federal recognition in order to sustain and thrive as a profession.

**Practical Implications of Correlational Study for Counselor Educators**

Information regarding reimbursement methodologies as related to employment opportunities for counselors should be conveyed to counselors-in-training within master’s and doctoral programs. This information can assist trainees in navigating the often difficult process of obtaining employment following graduation, especially in the dynamic health care landscape of the U.S. Whether or not graduates are specifically
interested in working in integrated care settings such as FQHCs, they should be knowledgeable of the complexities of reimbursement methodologies, especially for large government programs such as Medicaid and Medicare; the possible impact of billable mental health provider policies on employment options; and, the avenues of policy advocacy to change reimbursement methodologies in favor of counselors. Counseling students should be informed of the status of counselors as billable mental health providers within all major government programs, including Medicaid, Medicare, Tricare, the Department of Veterans Affairs, and the Children’s Health Insurance Program. The reimbursement strategies utilized by these programs are related to counselor employment opportunities, as evidenced by the results of this study and by the counselor advocacy movement calling for increased recognition within these programs.

Counselor educators have a responsibility to inform their students of the possible effects of billable provider status on employment opportunities. Graduates seeking employment in a state where counselors are not eligible to bill Medicaid will likely face diminished opportunities. With increased awareness, students can have a more realistic understanding of employment options following graduation, while also realizing the importance of participating in professional advocacy related to this significant issue. Because of the practical importance of securing employment, counselor educators have a responsibility to convey the current political reality to students and encourage advocacy for increased recognition of counselors as billable mental health providers.

Instruction on billable provider status can be effectively incorporated into curricula for master’s and doctoral-level students under the current CACREP 2016
Standards (Council for Accreditation of Counseling & Related Educational Programs, 2015). For master’s-level students, this information would bolster CACREP’s Standards in Section 2: Professional Counseling Identity, 1. Professional Counseling Orientation and Ethical Practice, h. current labor market information relevant to opportunities for practice within the counseling profession, and d. the role and process of the professional counselor advocating on behalf of the profession. Counselor educators could incorporate this additional training on the possible effects of reimbursement methodologies into an orientation course. For doctoral-level students, this information would bolster CACREP’s Standards in Section 6: Doctoral Standards for Counselor Education and Supervision, B. Doctoral Professional Identity, 5. Leadership and Advocacy, h. current topical and political issues in counseling and how those issues affect the daily work of counselors and the counseling profession, and i. the role of counselors and counselor educators advocating on behalf of the profession and professional identity. Counselor educators could incorporate this additional training on the effects of reimbursement methodologies into a professional issues course. Counseling students must recognize the potential impacts of reimbursement eligibility, a critical professional issue, on employment opportunities following graduation.

Discussion of Limitations

Both the quasi-experimental and correlational portions of the current study present limitations that must be taken into consideration when interpreting results. In the quasi-experimental study, the width of the analytic window, in addition to the reliance on 2012-2013 data and the inability to account for years prior to 2012, created the primary
threats to internal validity. In the correlational study, the inability to survey randomly selected FQHCs throughout the U.S. created the primary threat to internal and external validity. Despite the described limitations, the study contributes significantly to the literature regarding the effect of Medicaid expansion on mental health service delivery at FQHCs and the employment of counselors in these safety-net clinics.

**Limitations of Quasi-Experimental Study: Count Model Difference-in-Differences**

Health care policy changes (e.g., ACA’s policy of Medicaid expansion effective on January 1, 2014) create an ideal environment in which to conduct quasi-experimental, differences-in-differences research because measurements can be made before and after the policy implementation (Craig et al., 2012; Kelly et al., 2007). When measuring changes before and after policy implementation, researchers must make decisions about the width of the analytic window and consider that the wider the window, the greater the likelihood of threats to internal validity (Murnane & Willet, 2011). Utilizing data from years 2012 through 2015 in the current study widened the analytic window and may have decreased the internal validity of the study because there was time during the four years for other factors to impact the outcome variables (i.e., thus increasing the threat of history; Campbell & Stanley, 1963).

The difference-in-differences model’s inability to account for years prior to 2012 and its dependence on the 2012-2013 data to establish baseline rates of change are also acknowledged limitations of the quasi-experimental study. Only including essentially four data points (for the years 2012, 2013, 2014, and 2015) in the model likely over-
emphasized the importance of 2012-2013 baseline rates, especially when ACA funding increases and the emphasis on the patient-centered medical home model likely created increases in FQHC mental health outcomes during these years prior to Medicaid expansion on January 1, 2014. Including more years of data prior to 2014 would likely have established more accurate rates of change prior to Medicaid expansion from which to base comparisons.

Health care policy changes often take longer to implement because individuals first need to be educated about the benefits of the policy change, sign-up for the new program, and then utilize the services offered (Adepoju et al., 2015; Grol et al., 2013). The need for public outreach and education efforts related to the ACA was well-documented by the media (Zigmond, 2013). In the current study, utilizing data from 2014 (after only one year of Medicaid expansion policy) may have also confounded the outcome variables of FQHC mental health visits and mental health staff because eligible individuals had not yet signed up for Medicaid. Nevertheless, it was decided that including this year of data benefitted the overall study by increasing the number of data points available for analysis and improving the statistical power. Future studies could add 2011 data (pre-Medicaid expansion) and 2016 data (post-Medicaid expansion) in order to maintain statistical power while reducing the potentially confounding effects of the first year of data available following Medicaid expansion (i.e., 2014 data).

Despite these issues, a strength of the difference-in-differences design is that it seeks only to understand if there is a significant difference in the treatment group versus the control group. If both groups are affected by similar threats to internal validity, then
these founders are relatively accounted for within the design. However, it is still possible that unknown factors may have affected the treatment group of Medicaid expansion states more so than the control group of non-Medicaid expansion states (or vice-versa). For example, the funding increases allocated to FQHCs may have been disbursed according to different timeline schedules among the two groups of states, causing unequal changes in the outcome variables.

Another obvious limitation of this study is its inability to measure and include mental health outcomes for other Medicaid provider locations beyond FQHCs. It is known that Medicaid enrollment has increased 13 million in Medicaid expansion states but only 2 million in non-Medicaid expansion states (Centers for Medicare & Medicaid Services, 2016). FQHCs see a large percentage of Medicaid patients and are incentivized to enroll Medicaid patients. As previously discussed, FQHCs receive enhanced Medicaid reimbursement, known as PPS, for Medicaid services provided to these patients. Yet individuals covered by Medicaid are free to access health care from other providers (assuming the provider accepts Medicaid). Thus, although this study concluded that Medicaid expansion did not result in a higher rate of change in the number of mental health visits and FTE mental health staff at FQHCs, this study did not examine the experience of other mental health providers in both groups of states. A more complete picture of the impact of Medicaid expansion upon the utilization of mental health services and the employment of mental health staff would include not just FQHCs but all mental health providers accepting Medicaid patients. The resources did not exist to collect this information in the current study.
The most obvious limitation of the study is that while the Uniform Data System does track the insurance profile mix of the total patient population, there is no way to determine whether the insurance profile mix of the patients receiving mental health services at FQHCs is the same. In other words, the Uniform Data System tracks the number of mental health visits but does not provide any publicly-available information related to the insurance status of the patients receiving mental health visits (e.g., the percentage of mental health visits utilized by Medicare, Medicaid, private commercial insurance, other public insurance, or uninsured patients). Moreover, it is plausible that the insurance profile mix in the control group of non-Medicaid expansion states shifted from 2012-2015 because a percentage of the uninsured from the control group relocated to the treatment group of Medicaid expansion states. Similar issues exist if a certain category of insurance coverage consumes disproportionately more mental health services. For example, approximately eight percent of FQHC patients are Medicare patients, but they may be using more than eight percent of the mental health visits because Medicare patients tend to use more health care resources in general and older adults frequently experience mental health issues (Bartels & Naslund, 2013). The inability to account for the insurance status of patients utilizing mental health visits obscures the results of the analyses, especially if the insurance profile mix for the mental health visits was substantially different or shifted during 2012-2015 between the two groups of states (e.g., significantly more uninsured or more Medicare patients using mental health services in Medicaid expansion states versus non-Medicaid expansion states). Under the constraints of the Uniform Data System, the current study could not address the insurance profile
mix specifically for mental health visits, but it was reasonably assumed that the insurance profile mix for the total patient population gathered from the annual reports remained applicable when discussing the utilization of mental health services.

Lastly, regarding the current study’s reliance upon the annual state-aggregated reports of the Uniform Data System, there may have been unknown data reporting and data entry errors, but it should be emphasized that the Uniform Data System strives to provide detailed instructions to FQHCs for all calculations (e.g., number of mental health visits and mental health staff), and there is administrative support available through the BPHC, including frequent webinars and support staff available via email or telephone. The Uniform Data System manuals, in conjunction with this supplementary support, promote the consistency of reported data across FQHCs in various states (BPHC, 2015). Moreover, FQHCs have been compiling and submitting this information annually for many years so any data entry that does not match historical projections would likely be noticed.

**Limitations of Correlational Study:**

*Survey and Two-Sample Test of Proportions*

The correlation study provided empirical evidence of the relationship between state PPS reimbursement methodology and the employment of LPCs versus LCSWs at FQHCs. The correlational study, however, did not determine causality; it cannot be said that the state decision to approve LPCs as billable PPS providers caused FQHCs to employ a higher proportion of LPCs. It is acknowledged that other factors beyond PPS policy may be at work. For example, employment decisions at FQHCs may be based...
upon inherent or perceived professional differences between LPCs and LCSWs; within the current study, there was no means of accounting for these influences. Furthermore, individual states may have higher or lower numbers of different types of mental health professionals than reflected in the national marketplace, and the current study did not examine the influence of this factor upon mental health staff employment at FQHCs. Another limitation of the current study is its exclusion of marriage and family therapists from the survey for the purpose of simplicity; marriage and family therapists receive similar training to LPCs and are considered a specialty of counseling (Myers, 1995).

Furthermore, the complexity of each state’s unique Medicaid policies related to FQHCs poses a potential limitation that should be considered when interpreting the results related to the correlational study. There may be unknown Medicaid policies that affected the ability of FQHCs to provide mental health services and specifically, the hiring of LPCs versus LCSWs, in individual states. These factors have not been documented in the literature (to this researcher’s knowledge), but from preliminary conversations with FQHC employees, it appears that there exists a gap between research and practice related to FQHC billing practices.

Regarding the sample of the correlational study, the overall response rate of the individual FQHCs was 60%. It is possible that administrators at larger FQHCs were less willing to complete the survey because of the increased amount of time needed to tally the number of LPCs and LCSWs (as compared to smaller FQHCs). Strategies to improve the response rate could be implemented in order to decrease potential selection bias. Lastly, the cluster sampling methodology of the correlational study utilized only
Medicaid expansion states in order to compare similar groups of states except for the policy approving or not approving LPCs as billable PPS providers. The sampling methodology should ideally survey random FQHCs from all states to reduce the likelihood that a given state’s individual policies or conditions are affecting the overall proportions of LPCs employed at FQHCs. If individual FQHCs were randomly selected, as opposed to the current study’s cluster sampling methodology, there would be less risk of sampling bias (Heppner et al., 2008). A random selection sampling strategy would permit causal conclusions to be drawn from the results.

**Suggestions for Future Research**

**Quasi-Experimental Study:**  
**Count Model Difference-in-Differences**

There are several potential research topics inspired by the results of the quasi-experimental study. Most obvious is utilizing the current study’s count model difference-in-differences methodology, but including additional years of data (e.g., 2011-2016). This model would account for three years of measurement pre- and post-Medicaid expansion. Accounting for utilization and employment trends prior to the influx of ACA funding in 2010 could also result in a better understanding of the results post-Medicaid expansion. Of course, more years of data would increase the width of the analytic window and increase the influence of other intervening historical events, so an analytic strategy other than difference-in-differences should be considered (Campbell & Stanley, 1963; Murnane & Willet, 2011).
The Uniform Data System offers researchers an abundant source of patient information that can be used to research the delivery of mental health care at FQHCs. For example, examining the insurance coverage profiles of the overall patient population of each state (i.e., the percentages of Medicaid, Medicare, private commercial insurance, uninsured, etc.) could provide a more nuanced understanding of the utilization and employment trends facing FQHCs. As described earlier, the current study did not account for the mixed insurance payer profile of FQHC patients in the two groups of states. According to the research of Shin, Sharac, and Zur et al. (2015), “[i]t is reasonable to surmise that increased patient revenues generated by increased coverage among low-income populations help health centers to expand their service capacity” (p. 8). Further empirical research is needed to examine the impact of different insurance reimbursement methodologies and patient mix (e.g., Medicaid, Medicare, private commercial insurance) upon the utilization of health care services (including mental health services), staffing, and overall financial outlook of FQHCs. The annual reports of the Uniform Data System also contain aggregated data related to such variables as patient demographic information, socioeconomic status, rates of depression screenings, rates of particular mental health conditions, and the prevalence of chronic conditions. Thus, further research could determine the relationship between one or more of these variables and the utilization and staffing of mental health professionals at FQHCs. Relatedly, the number of substance abuse visits at FQHCs, which were excluded from the current study for the sake of simplicity, could also be included in future models.
The finding that the rate of change in mental health visits was significantly higher at FQHCs in non-Medicaid expansion states compared to Medicaid expansion states also merits further investigation, in particular an understanding of the number of mental health visits per each mental health staff professional. According to Uniform Data System data, behavioral health providers of all types see an average of 0.78 clients per hour (Jorgensen, 2015). In a 32-hour work week (which excludes lunch and other breaks), a behavioral health provider can provide roughly 25 client visits per week; this statistic translates to approximately 1,200 visits per 48-week work year (Jorgensen, 2015). This estimation does not include whether the FQHC hires additional administrative staff, such as certified coders, to lower the amount of administrative time spent per client by the mental health professional (Jorgensen, 2015). This calculation also does not take into account the amount of additional time potentially spent coordinating care in an integrated care system such as the patient-centered medical home model used in most FQHCs.

According to the annual Uniform Data System reports utilized in the current study, for Medicaid expansion states, from 2012-2015, the average number of mental health visits per FTE mental health staff per year declined from 1,012.40 to 920.87. For non-Medicaid expansion states, from 2012-2015, the number of mental health visits per FTE mental health staff per year declined from 1087.98 to 990.67 (see Tables 7-10 and Tables 12-15). It is evident that on average, each FTE mental health staff provided slightly more mental health visits annually in non-Medicaid expansion states as compared to Medicaid expansion states. The more important trend to investigate is that in both groups of states, from 2012-2015, on average, each FTE mental health staff reduced the number of mental
health visits they provided per year (Medicaid expansion states, -9.04% decline; non-Medicaid expansion states, -8.94% decline). The reasons for the decline are not known; perhaps the implementation of the patient-centered medical home model emphasizing integrated coordinated requires additional time per patient. Further research may be warranted if this trend continues because eventually it will impact the efficient delivery of mental health services.

Lastly, future research is needed to track data on mental health referrals outside of FQHCs (not included in the Uniform Data System). These data could yield future studies that demonstrate the benefits of Medicaid insurance for those clients with severe mental illness. As noted by Devoe et al. (2015), individuals with severe mental illness who gain Medicaid insurance do increase mental health service utilization compared to their uninsured counterparts, but FQHCs are not necessarily equipped to handle this type of client and referrals by FQHCs to outside clinics are not tracked in Uniform Data System reports. Future studies not focusing solely on FQHCs could further explore the impact of gaining Medicaid insurance upon clients with mental illness, especially severe mental illness.

**Correlational Study: Survey and Two-Sample Test of Proportions**

The correlational study used a survey of FQHCs to develop a 2016 snapshot of LPC and LCSW employment at FQHCs. Additional research is needed to foster a deeper understanding of the factors influencing the hiring of certain types of mental health professionals at FQHCs. For example, a survey could be used to identify the motivations of FQHC administrators in hiring decisions, such as scope of practice laws,
reimbursement protocols, and professional competency. This research could update the findings of the 2012 Virginia survey of community health centers in which community health center administrators preferred to hire a mental health professional with the broadest scope of practice and the highest level of third-party payment for services (Virginia Health Care Foundation, 2013).

Future research is also needed to determine how different state Medicaid reimbursement methodologies influence the salaries of LPCs employed at FQHCs as compared to the salaries of LCSWs. A causal study could further investigate the salaries of LPCs compared to LCSWs at FQHCs in the two groups of states: states approving LPCs and states not approving LPCs as billable PPS providers. This research could be expanded to include other health care delivery sites, especially clinics offering the integrated care delivery model, and using other reimbursement schemes such as value-based health outcomes.

Of critical importance for counselor advocacy is to determine which strategies will be successful in expanding the role of counselors in the health care landscape. Some states, such as Ohio and North Carolina, are generally recognized for their strong counselor advocacy efforts. These states typically boast quality counselor graduate training programs and higher proportions of counselors in the workforce. It may be helpful to study the counselor professional organizations in such states to determine which advocacy strategies are most likely to work in other states and on the federal level. Certainly research highlighting the high training standards and demonstrated competencies of counselors to address mental health issues would support advocacy
efforts. Ultimately, only by advocating before policymakers can the counseling profession ensure that its members experience the same professional opportunities as other master’s-level mental health providers.

In order to facilitate future studies, a separate reporting category for LPCs in the Uniform Data System is necessary. Currently, there is a general reporting category for “other licensed mental health providers,” which encompasses LPCs, marriage and family therapists, and nurses trained in mental health (BPHC, 2014). In comparison, licensed psychologists have received their own reporting category despite evidence that the profession represents only a relatively small number of mental health FTEs at FQHCs (Lardiere et al., 2011). Professional advocacy efforts should include support for LPCs to receive a separate reporting category in the Uniform Data System. This change to the Uniform Data System will undoubtedly occur when LPCs are added to the list of approved mental health providers in federally-funded health programs such as Medicaid and Medicare.

Conclusion

The health care landscape in the U.S., including the delivery of mental health services, has undergone a striking sea change over the past six years because of the reform policies enacted by the ACA. Even with the recent election of President Trump and the Republican-controlled Congress, any replacement of the ACA will likely retain the more popular provisions. Regardless of any future health care policy changes, it is expected that Congress will protect the critical role of FQHCs as it has for decades, and
this primary care model will continue to be the safety net health care provider for millions of Americans.

Counselors are vital mental health providers within this shifting landscape and, as this study illustrates, within many FQHCs across the U.S. Yet, because of gaps in certain federal and state policies that fail to recognize counselors as billable mental health providers, counselors do not experience the same employment opportunities as social workers. It is clear that counselor advocacy efforts are needed on state and federal levels to seek changes in reimbursement protocols, specifically the inclusion of LPCs as billable mental health providers under the Medicaid Prospective Payment System. The counseling profession must advocate for their place at the table and advance policy changes that will promote the role of counselors or risk diminished opportunities in this dynamic market. Notwithstanding the ACA’s uncertain future, utilization of mental health services at FQHCs will likely continue to increase, and counselors are well-equipped by professional training to function in this outpatient primary care setting. With more equitable reimbursement policies, counselors can play an influential role in the delivery of integrated care at FQHCs supporting this emerging trend.
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APPENDIX A

MAILED SURVEY AND INFORMED CONSENT
To Whom It May Concern:

For my dissertation study, I am researching the relationship between Medicaid Prospective Payment System billable provider status and the employment of licensed professional counselors and licensed clinical social workers at Federally Qualified Health Centers. I am seeking the participation of this Health Center Program grantee by reviewing the informed consent document and by completing and mailing back the one-question survey on or before December 5th. Please include data from all FQHC sites if applicable. If you do not employ licensed professional counselors or licensed clinical social workers, please write “0” as your response.

The data from responses will be aggregated at the state level on a password-protected computer, and all individual paper responses will then be shredded. In the event that I have not received a response from your FQHC, I will likely follow-up with a short telephone call to determine whether you are unable to provide this information.

Thank you for volunteering your time to assist me with this research project towards the completion of my doctoral degree. As a small gesture of gratitude, I will enter all participating FQHCs into a drawing for a $50 Amazon gift card (with multiple chances to win), delivered to the email address (if provided). I will also send copies of any published research resulting from this study to the email address (if provided). Please do not hesitate to reach out to me if you have any questions.

Sincerely,

(Signature)

Researcher Contact Information:
Alison Phillips Sheesley, Ph.D. Candidate
University of Northern Colorado
P.O. Box 460506
Denver, CO 80246
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Faculty Advisor Contact Information:
Dr. Elysia V. Clemens
University of Northern Colorado
Campus Box 131
Greeley, CO 80631
Phone: 970-351-3044
Email: elysia.clemens@unco.edu
1. Using the same reporting guidelines for staffing set forth in the 2016 Uniform Data System manual, how many of the following full-time equivalent (FTE) mental health professionals were employed in providing mental health services at this health center¹ (including its ancillary sites) on November 15, 2016? Exclude substance abuse services. Decimals/fractions are allowable.

NUMBER OF FTE LICENSED PROFESSIONAL COUNSELORS² (LPCs): _______

NUMBER OF FTE LICENSED CLINICAL SOCIAL WORKERS³ (LCSWs): _______

EMAIL ADDRESS (optional): ____________________________________________

¹ This survey includes all sites that report annual data to the Uniform Data System connected to this Federally Qualified Health Center (i.e., including community health center programs, migrant health programs, health care for the homeless programs, and public housing primary care programs).

² For the purposes of this study, the term “licensed professional counselor” is equivalent to “professional clinical counselor,” “licensed clinical professional counselor,” “licensed mental health counselor,” or another term of licensure for counselors as defined in this state’s laws and those collecting hours towards this licensure. Exclude marriage and family therapists.

³ For the purposes of this study, the term “licensed clinical social worker” is equivalent to “registered clinical social worker,” “licensed certified social worker,” “licensed independent social worker,” or any other term of licensure for social workers as defined in this state’s laws and those collecting hours towards this licensure.
CONSENT FOR HUMAN PARTICIPANTS IN RESEARCH
UNIVERSITY OF NORTHERN COLORADO

Project Title: Medicaid Expansion, Medicaid Reimbursement Methodologies, and Counselor Employment at Federally Qualified Health Centers.

Researcher Contact Information:
Alison Phillips Sheesley, Ph.D. Candidate
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Dr. Elysia V. Clemens
University of Northern Colorado
Campus Box 131
Greeley, CO 80631
Phone: 970-351-3044
Email: elysia.clemens@unco.edu

Purpose: This study explores the relationship between Medicaid Prospective Payment System billable provider status and the employment of licensed professional counselors and licensed clinical social workers at Federally Qualified Health Centers.

Description: Please complete the enclosed one-question survey, and return it in the provided pre-stamped envelope, preferably on or before December 5, 2016.

Data Handling Procedures: Data from responses will be aggregated and reported at the state level. Upon immediate receipt of this completed survey, the researcher will enter the information into a password-protected computer for the purpose of data analysis. Then, this paper version of the survey will be shredded.

Potential Benefits: The researcher will provide copies of any published research resulting from this study. The researcher will also enter all participating FQHCs into a drawing for a $50 Amazon gift card (with multiple chances to win) as a small gesture of gratitude.

Potential Risks: The risks associated with participating in this study are anticipated to be minimal. The staff member reporting the data will expend time in completing the survey. The primary protection is the voluntary nature of this study. This health center can choose to withdraw from this study at any time.

I understand that by mailing back the requested data, I have consented for the data to be used in this study.

Participation is voluntary. You may decide not to participate in this study and if you begin participation, you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please begin the survey if you would like to participate in this research. Submitting a completed survey indicates your consent to participate in the study. If you have any concerns about your selection or treatment as a research participant, please contact Sherry May, IRB Administrator, Office of Sponsored Programs, 25 Kepner Hall, University of Northern Colorado, Greeley, CO 80639; Phone: 970-351-1910.
APPENDIX B

FOLLOWUP EMAIL SURVEY AND INFORMED CONSENT
To Whom It May Concern:

For my dissertation study, I am researching the relationship between Medicaid Prospective Payment System billable provider status and the employment of licensed professional counselors and licensed clinical social workers at Federally Qualified Health Centers. I previously mailed the attached survey on November 15th to this health center’s general administrative offices, and I am following up with this email.

I am seeking the participation of this Health Center Program grantee by reviewing the attached informed consent document (signature not required) and by emailing back the one-question survey. Please include data from all FQHC sites if applicable. If you do not employ licensed professional counselors or licensed clinical social workers, please write “0” as your response. You can print the attached PDF and scan it back, or you can reply in the content of this email, as the survey is copied and pasted below—whichever is easier for you.

The data from responses will be aggregated at the state level on a password-protected computer, and all emails of data will then be permanently deleted. In the event that I have not received a response from this FQHC, I will likely follow-up with a short telephone call to determine whether you are unable to provide this information.

Thank you for volunteering your time to assist me with this research project towards the completion of my doctoral degree. As a small gesture of gratitude, I will enter all participating FQHCs into a drawing for a $50 Amazon gift card (with multiple chances to win), delivered to the email address of the respondent. I will also send copies of any published research resulting from this study to the email address of the respondent. Please do not hesitate to reach out to me if you have any questions.

Sincerely,

Alison Sheesley

Alison Phillips Sheesley, Ph.D. Candidate
University of Northern Colorado
P.O. Box 460506
Denver, CO 80246
Phone: 210-887-9613
E-Mail: PHIL1636@bears.unco.edu
2016 Health Center Mental Health Employment Survey

1. Using the same reporting guidelines for staffing set forth in the 2016 Uniform Data System manual, how many of the following full-time equivalent (FTE) mental health professionals were employed in providing mental health services at this health center\(^1\) (including its ancillary sites) on November 15, 2016? Exclude substance abuse services. Decimals/fractions are allowable.

NUMBER OF FTE LICENSED PROFESSIONAL COUNSELORS\(^2\) (LPCs): _________

NUMBER OF FTE LICENSED CLINICAL SOCIAL WORKERS\(^3\) (LCSWs): _________

---

\(^1\) This survey includes all sites that report annual data to the Uniform Data System connected to this Federally Qualified Health Center (i.e., including community health center programs, migrant health programs, health care for the homeless programs, and public housing primary care programs).

\(^2\) For the purposes of this study, the term “licensed professional counselor” is equivalent to “professional clinical counselor,” “licensed clinical professional counselor,” “licensed mental health counselor,” or another term of licensure for counselors as defined in this state’s laws and those collecting hours towards this licensure. Exclude marriage and family therapists.

\(^3\) For the purposes of this study, the term “licensed clinical social worker” is equivalent to “registered clinical social worker,” “licensed certified social worker,” “licensed independent social worker,” or any other term of licensure for social workers as defined in this state’s laws and those collecting hours towards this licensure.
CONSENT FOR HUMAN PARTICIPANTS IN RESEARCH
UNIVERSITY OF NORTHERN COLORADO

Project Title: Medicaid Expansion, Medicaid Reimbursement Methodologies, and Counselor Employment at Federally Qualified Health Centers.

Researcher Contact Information: Alison Phillips Sheesley, Ph.D. Candidate
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Campus Box 131
Greeley, CO 80631
Phone: 970-351-3044
Email: elysia.clemens@unco.edu

Purpose: This study explores the relationship between Medicaid Prospective Payment System billable provider status and the employment of licensed professional counselors and licensed clinical social workers at Federally Qualified Health Centers.

Description: Please complete the attached one-question survey and email it back to the researcher’s email address: PHIL1636@bears.unco.edu.

Data Handling Procedures: Data from responses will be aggregated and reported at the state level. Upon immediate receipt of this completed survey, the researcher will enter the information into a password-protected computer for the purpose of data analysis. Then, all emails of data will be permanently deleted.

Potential Benefits: The researcher will provide copies of any published research resulting from this study. The researcher will also enter all participating FQHCs into a drawing for a $50 Amazon gift card (with multiple chances to win) as a small gesture of gratitude.

Potential Risks: The risks associated with participating in this study are anticipated to be minimal. The staff member reporting the data will expend time in completing the survey. The primary protection is the voluntary nature of this study. This health center can choose to withdraw from this study at any time.

I understand that by emailing back the requested data, I have consented for the data to be used in this study.

Participation is voluntary. You may decide not to participate in this study and if you begin participation, you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please begin the survey if you would like to participate in this research. Submitting a completed survey indicates your consent to participate in the study. If you have any concerns about your selection or treatment as a research participant, please contact Sherry May, IRB Administrator, Office of Sponsored Programs, 25 Kepner Hall, University of Northern Colorado, Greeley, CO 80639; Phone: 970-351-1910.
APPENDIX C

INSTITUTIONAL REVIEW BOARD APPROVAL LETTER
DATE: November 9, 2016

TO: Alison Sheesley

FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [960341-2] Medicaid Expansion, Medicaid Reimbursement Methodologies, and Mental Health Staff at Federally Qualified Health Centers

SUBMISSION TYPE: Amendment/Modification

ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS

DECISION DATE: November 9, 2016

EXPIRATION DATE: November 9, 2020

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.