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The Role of Occupational Therapy in Primary Care

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THE ROLE OF OCCUPATIONAL THERAPY IN PRIMARY CARE

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This project, written by Priti Patel under direction of Dr. Dana Howell, Faculty Mentor, and approved by members of the project committee, has been presented and accepted in partial fulfillment of requirements for the degree of

DOCTOR OF OCCUPATIONAL THERAPY

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Certification

We hereby certify that this Capstone project, submitted by Priti Patel, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the project requirement for the Doctor of Occupational Therapy degree.

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Executive Summary

The Capstone Project is focused on communicating, influencing and educating other health care professionals regarding the role of occupational therapy in the future model of primary care delivery initiated by the adoption of the Affordable Care Act and the Triple Aim Initiative. Currently, primary care, the largest health care platform in United States, is not inclusive of occupational therapy services. Occupational therapists have the scope, knowledge and understanding to be part of the redesigned team model of primary care. Educating those currently working in primary care about adding occupational therapy services can have a significant impact on the profession of occupational therapy by opening a new area of health care delivery for the profession.

The Triple Aim Initiative is the guiding theoretical framework for the Capstone Project. The Triple Aim Initiative plans to redesign the primary care service structure to have a team of professionals deliver at least 70% of the necessary health related care, to simultaneously improve the individual experience of care, to improve the health of populations, and to reduce the per capita cost of care.

The Capstone Project provided an educational in-service to current primary care providers to increase the awareness of the educational background, scope of practice, and the benefits that occupational therapy can bring to a primary care team model. A PowerPoint enhanced presentation was designed to educate the health care professionals and to facilitate interactive discussion with examples of occupational therapy in primary care. It included a brief review of the Affordable Care Act, the Triple Aim Initiative and the changing model of primary care delivery. A pretest/posttest survey format was used for outcome measures.

The Capstone Project promoted the emerging role of occupational therapy in primary care. It was able to increase the understanding of occupational therapy in current primary care providers so that the concept of integrating occupational therapy in future primary care team models could be developed. The Capstone Project was able to demonstrate the presence of a signifcant oppurtunity for occupational therapists to enhance future delivery of primary care services in the United States.

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Table of Contents

List of Tables

Section 1

Nature of the Project and Problem Identification

Introduction

This Capstone Project is part of the graduation requirement for a Doctor of Occupational Therapy at Eastern Kentucky University. This project is focused on communicating, influencing and educating other health care professionals about the power of occupational therapy for the improvement of future health care delivery in the United States. Currently, the health care delivery system in the United States is undergoing a significant change due in large part to the adoption of the Affordable Care Act (Public Law 111-148). This legislation is broad in scope, and aims to make health care more accessible and affordable. In this new model of health care, the emphasis of care is shifting away from habilitative services towards prevention and health promotion. Habilitative services assist patients in maintaining their current functional abilities while rehabilitation services help patients regain what they may have lost due to illness, disease, disability or trauma (Nanof & Grooms, 2015). In the new model prevention of disabilities, maintenance of health, and active patient participation at the service delivery level of primary care is encouraged. With this latest health care reform, the profession of occupational therapy is given a great opportunity for change. Occupational therapists may expand their role in health care by providing services in primary care settings thereby capitalizing on the new model. This section will provide an overview of the ACA, as well as primary care, primary care medical homes, federally qualified health centers, the Triple Aim Initiative and the role of occupational therapy. The purpose of the Capstone Project will be discussed, along with its significance.

Affordable Care Act (ACA)

President Barack Obama signed the ACA on March 23, 2010. It mandated health care reform over four years so that all Americans can have health insurance with healthcare of higher quality, lower cost and increased efficiency. The consumer will be able to select a physician and receive health insurance even if they have a pre-existing condition. Thus, the ACA puts the consumers in control of their own health care, to make health care more affordable and accessible (Health & Human Services [HHS], 2015). The ACA made coordinated primary patient care a priority. Under this bill, payments to physicians are to be modified according to the quality of care provided. Physicians with better patient outcomes will receive higher payments as compared to those who provide lower quality of care (HHS, 2015).

Primary Care

Health care reform and the ACA have put primary care at the forefront of the United States health care system. The ACA increases access to primary care making it the backbone of the health care system. The ACA also aims to lower overall health care costs and improve health outcomes (American Academy of Family Physicians [AAFP], 2015b). According to the AAFP (2015a), in addition to diagnosis and treatment of acute and chronic conditions, primary care includes health maintenance and promotion, disease prevention, counseling and patient education. It is the patient's first point of entry in the health care system. The primary care physician is a generalist who takes continued responsibility for providing care for the patients' medical and ongoing health care needs. Primary care physicians coordinate the use of the entire health care system, advocating for the patient, and collaborating with other health professionals to accomplish cost effective care. Currently physicians, nurse practitioners and physician assistants are the main health care providers who deliver primary care services responding to the acute needs of the patient (AAFP, 2015a). The ACA calls for a new design of the current

primary care model. In the future, physicians may not be the sole or even principal providers of primary care (Berwick, Nolan, & Whittington, 2008, p. 764). The role will be expanded to create long-term relations between patients and their primary care team. It will include development of a shared plan of care, coordinating subspecialties, hospitals and connecting community resources under the title of medical home (Berwick et al, 2008, p. 764). ACA as it is defined, provides opportunities for occupational therapy to align itself with primary care (Metzler, Hartmann & Lowenthal, 2012) and to be included in the new redesigned model of primary care.

Primary Care Medical Home or Patient Centered Medical Home (PCMH)

The primary medical care home or patient centered medical home is being introduced to achieve high quality, accessible and efficient medical care by changing how primary care is delivered (Agency for Healthcare Research and Quality, 2015). There is a desire for a gradual transformation in the delivery of primary care model by the PCMH, as well as primary care services already established at federally qualified health centers (FQHCs). This new primary care model will coordinate and transition care between the PCMHs and the broader health care system of hospitals, specialty care, home health care and community services. Team of care providers that might include physicians, nurse practitioners, physician assistants, nurses, pharmacists, nutritionists, social workers, educators and care coordinators will provide these services. In the new primary care system each patient's unique needs, culture, values and preferences will be taken into consideration, and the patient will actively participate and learn to manage their own care. The goal is to have a long-term relationship between the patient and the team of providers, across the life span with continued care to the whole person (Goldberg & Dugan, 2013, p. 6).

Federally Qualified Health Centers (FQHCs)

For the last 45 years, the Health Resource and Service Administration (HRSA) of the U.S. Department of Health and Human Services has been delivering primary care at FQHCs regardless of the patients' ability to pay (HRSA, 2015b). Currently, there are 1,300 FQHCs operating over 9000 delivery sites that provide care to more than 21.7 million patients (HRSA, 2015b). One in every 15 people living in the U.S. relies on an HRSA-funded clinic for primary care (HRSA, 2015b). These FQHCs are community-based located in communities serving a high need patient population. The FQHCs qualify for enhanced reimbursement, have their own governing bodies, and offer a sliding fee scale to provide comprehensive primary care (HRSA, 2015b). Kentucky has 19 FQHCs providing services at 92 sites (Rural Assistance Center, 2015). With the implementation of the ACA, a team-based approach is emphasized in the current FQHCs so that they can easily become future PCMHs (HRSA, 2015b).

In the United States, there are 10,733 physicians, 8,156 nurse practitioners, physician assistants and certified nurse midwives working as primary care providers in these FQHCs (HRSA, 2015b). The HRSA notes that additional required and/or optional services may be provided at these FQHCs, providing that the health center thoroughly investigates the costs, benefits and risks before adding the additional service (HRSA, 2015a). Currently, many allied health professions services are extremely limited at most FQHCs, with some mentioned only on HRSA forms as a potential additional (optional) service. One of the goals of the ACA is to reduce costs and provide coordinated patient care. This creates a significant opportunity for allied health professions, such as occupational therapy, to enter the primary care workforce.

Triple Aim Initiative

The Institute for Healthcare Improvement (IHI) describes a "Triple Aim" approach to improving health care that could be used as a model for redesigning the current primary care system. It is an approach used to optimize the performance of the health care system. The IHI states that new designs must be developed to improve the health care system simultaneously in three different dimensions, thus the name "Triple Aim." The Triple Aim Initiative calls for "improving the individual experience of care, improving the health of populations and reducing the per capita costs of care for populations" (Berwick et al, 2008, p. 760). The Triple Aim Initiative wants to focus on the patient by identifying patient populations, sharing decision making with the patient and using patient preferences to drive the medical decision-making. IHI supports converting the traditional physician control model, from the physician being the sole provider, to the physician as a collaborator. This measure will establish relations between the patient and the entire primary care team so that a pattern of care can be shaped. It will improve monitoring and early detection of deterioration and match the care provided to the underlying need. By using a group or a team of providers to serve the primary care community, best outcomes can be achieved at the lowest cost over time (Berwick et al., 2008).

The approach that the Triple Aim Initiative wants to use correlates with the concepts of the ACA, where individuals and families are empowered to control their health care. It also calls for broadening the role of primary care in having a continuum of care in the entire system throughout the life span of an individual. The Triple Aim approach supports the transformation of the newer primary care delivery models, such as PCMHs, to further strengthen health care reform and the ACA (Edwards, Patterson, Vakili, & Scherger, 2012).

A concept design to meet the Triple Aim Initiative is to focus the management of health of populations by redesigning the primary care delivery model structure. This is to be done by

identifying the high risk, high cost populations and understanding and strategizing the needs of each targeted population group. This will assist in creating comprehensive quality strategies and proven approaches (IHI, 2014). Those then can be shared through learning networks, which in turn can help reduce costs. Further coordination of care and decrease in costs can be achieved by using a care team model approach with continuity of care from the PCMHs or FQHCs to the hospital, specialist or home care as needed (IHI, 2014).

Value in health care is measured when all three parts of the Triple Aim are taken together. When the care experience and the cost are taken together, it measures efficiency. When the population health and the experience of care are combined, it measures effectiveness of care. An overall value or cost effectiveness of care is achieved when all three measures are combined and thus the Triple Aim is measured. The per capita cost is measured when the total cost per member of the population is taken over a month's time (Stiefel & Nolan, 2013).

The Role of Occupational Therapy

At the majority of health centers across the United States, most patients do not receive occupational therapy services. In 2013, Goldberg and Dugan, purposefully interviewed 21 organizations and found only three organizations that had incorporated occupational therapy into their primary care models. Besides those three organizations, "all individuals indicated that they did not understand the skills of occupational therapists and how to use occupational therapists on the primary care team" (Goldberg & Dugan, 2013, p.7). The most important finding for the authors was that most primary care physicians admitted they were not aware of the education, training, scope and the skill sets that occupational therapists have and can bring to primary care. This lack of knowledge and awareness of the role of occupational therapy in primary care is depriving patients of a team-based comprehensive care approach. The Triple Aim Initiative was

the primary focus and reason for incorporating occupational therapy into the redesigned primary care team models, an important finding from the interviews. Additional reasons to change the model of care delivery were to have specific measures for quality, costs, reducing hospitalization, reducing emergency department visits, improving provider satisfaction, and improving the ability to meet the needs of patients. Implementing team-based primary care also changes the culture of patient care to improving quality and value for the patient. The majority of organizations interviewed wanted occupational therapists to communicate and market their skill sets to help other health professionals and providers know and understand the role of occupational therapy in primary care (Goldberg & Dugan, 2013).

Occupational therapy practitioners can assume responsibility as a member of the primary care team by providing a required service in a patient-centered, comprehensive and coordinated care role. Occupational therapists can work with other health professionals to facilitate appropriate care delivery, transition care and link patients with community resources (Goldberg & Dugan, 2013). In fact, Goldberg and Dugan (2013) report that with the inclusion of occupational therapy at the three health centers, there has been an improvement in clinical outcomes. Most importantly, it has improved the patient's experience of care in primary care settings. It has also increased productivity for providers (Goldberg & Dugan, 2013). Occupational therapists can foster a relationship between the patient and the primary care team. They are trained and have the skills to assist to create a care plan and provide education in the management of the patient in the community-based setting.

Other countries have used team models in primary care for several years, with varying levels of inclusion and understanding of the role of occupational therapy. For example, in 2005 the PCMH model was introduced in Ontario, Canada and had occupational therapy integrated in

their team model approach (Rosser, Colwill, Kasperski, & Wilson, 2011). In United Kingdom, there was an increase in coordination and continuity of care when occupational therapy was incorporated in the primary care model in a mental health setting (Cook, Howe, & Veal, 2004). Patients were able to achieve goals of daily occupations when working with the occupational therapists with an improved long-term relationship with the primary care team. The occupational therapist encountered a role expansion with an increase in knowledge of scope of practice of all primary care team members (Cook et al, 2004). In Australia, interprofessional collaboration is being encouraged to improve the quality of care provided to patients. Interprofessional collaboration is where a team of two or more health professionals of different disciplines works together to provide an integrated care approach to patients (Braithwaite et al, 2012). It can be compared to the new team model in primary care. A survey did find however, that physicians had difficulties accepting other health professionals for interprofessional collaboration (Braithwaite, et al., 2012). Another study indicated that the primary care physician has to promote other health care providers to increase the patient satisfaction factor (Branson, Badger, & Dobbs, 2003). The difficulty that physicians have in accepting other health professionals could be from a lack of knowledge and awareness that the physicians have of the education and scope of practice of other health professionals. To improve interprofessional practice, every profession needs to understand the scope of practice of other health professionals. Occupational therapists have the responsibility to articulate their role in a primary health care team (Seruya, 2015).

Problem

Primary care, the largest health care platform in United States, is not inclusive of occupational therapy services. There is decreased awareness and understanding of the role of

occupational therapy in primary care, including PCMHs and FQHCs. Unknowingly, patients are deprived of access to a fully comprehensive team-based care approach. The team-based care approach could improve the patients' experience of care, lower overall health care costs, improve health outcomes and meet the Triple Aim Initiative.

Purpose of the Capstone Project

Given the lack of knowledge about occupational therapy services in primary care, the purpose of this Capstone Project was to disseminate information regarding the potential role occupational therapy can play in the new model of delivery of health care for primary care services. This information was provided via an educational in-service to health care personnel of FQHCs in Kentucky. The professionals included were physicians, nurse practitioners and behavioral health consultants. The aim of the educational project was to inform these health care personnel on how occupational therapists can aid in providing patient-centered, cost effective services to improve the individuals experience of care, improve the health of populations and reduce the per capita cost of care for primary care patients in Kentucky.

Project Objectives

The primary objective of this Capstone Project was to provide education regarding the role of occupational therapy in primary care to physicians, nurse practitioners and behavioral health consultants who work in primary care at FQHCs in Kentucky. The educational in-service informed the health care professionals regarding the educational background and the scope of practice of occupational therapists. It explained the benefits of adding occupational therapy services to primary care at FQHCs. The presentation used case scenarios from the three centers where occupational therapist are members of the primary care team of providers to illustrate how

team-based care approach can improve the patients' experience of care, lower overall health care costs, improve health outcomes, and meet the Triple Aim Initiative.

Theoretical Framework

The theoretical framework guiding this Capstone Project is the Triple Aim Initiative. It seeks to improve the delivery of health care in the primary care system. It simultaneously seeks to improve the individual experience of care, improve the health of populations, and reduce the per capita costs of care for populations. The Triple Aim Initiative plans to redesign the primary care service structure to have a team of professionals deliver at least 70% of necessary health related care. An accessible platform will provide customized health care to patients and families (IHI, 2014). Currently, only physicians, nurse practitioners or physician assistants are providing all the medical care at the FQHCs. This creates an imbalance between the demand of the growing population of patients who need and can access medical care and the supply of providers of services. The number of patients to be seen by each provider is going to increase. This may increase the imbalance and will result in longer average wait times for new patients to obtain internal medicine or primary care appointments. An example is when the state of Massachusetts had an expansion of medical coverage there was an increase in wait time by 82% in the first two years (Ghorob & Bodenheimer, 2012). Occupational therapists can assist in reducing wait time by addressing areas that they are trained in as members of the primary care team. Integration of occupational therapy at one FQHC in California has demonstrated an increase in follow through of care plan devised by the physician. The individual patient experience of care was improved at the three FQHCs in which occupational therapy had been integrated in the United States. Areas addressed by occupational therapists were time management skills, problem solving abilities, and the ability to follow through with medical

recommendations (Waite, 2014). The occupational therapy scope of practice can address other areas that are outlined as measures in the concept design for the Triple Aim Initiative. Occupational therapists can develop and coordinate services amongst individuals, family, caregivers and multiple providers of care for the medically and socially complex patient. Occupational therapists can jointly plan and customize care at the patient and family level. Occupational therapists can enable management of health by coordinating care with other services and work as community advocates for health promotion to manage diseases and conditions. This knowledge can then empower the patient and families to assist in improving care over time, thus improving the patients' experience of care (IHI, 2014).

Significance of the Capstone Project

Currently, occupational therapy is not listed as a primary care provider, but is considered an additional or optional service in primary care (HRSA, 2015a). The changes in the health care environment brought about by the ACA are affecting how future primary care services will be delivered. There is significant opportunity for occupational therapy practitioners to identify where they can add value. Occupational therapists can be proactive in being present during the creation of the new teams or care models and showcase how the services of an occupational therapist can be utilized. There are several areas of connection when the components of the ACA are compared to the occupational therapy practice domain. They include activities of daily living, instrumental activities of daily living, rest, sleep, education, work, play, leisure and social participation. The *Occupational Therapy Practice Framework* highlights the distinct value of how "only occupational therapy practitioners focus on the use of occupations to promote health, well-being and participation in life" (American Occupational Therapy Association [AOTA], 2014, p. S11). Educating those currently working in primary care about adding occupational

therapy services can have a significant impact on the profession of occupational therapy by opening a new area of health care delivery for the profession. The Centennial Vision of the AOTA supports this and envisions occupational therapy to be "a powerful, widely recognized, science-driven profession with a diverse work force to meet the society's occupational needs" (AOTA, 2007).

The concept of the Triple Aim Initiative calls for redesigning the primary care structure and service delivery. It calls for creating teams for basic services to deliver at least 70% of the necessary medical and health related services to populations. The use of FQHCs today and possible PCMHs in the future decreases the use of costlier providers of care such as emergency departments and hospitals, thus reducing the cost to the overall health system (National Quality Forum, 2014). Health care costs are growing at a rate of 7% per year, mainly because the current focus of care is on only treating acute and chronic illnesses (National Quality Forum, 2015). With occupational therapy as part of the new primary health care team, the patient will learn to manage multiple health care needs at the first point of entry into the health system. The patients will learn to address health maintenance, health promotion and disease prevention within their daily routines. This will potentially decrease the expenditure of United States health care system.

The new model of care with inclusion of occupational therapy will increase the number of providers who can assist in delivering primary care, adding much needed capacity to current providers (Ghorob & Bodenheimer, 2012). Chronic care demands a health care delivery system of continuous but brief, quality delivery of care. To achieve long-term improvement in primary care delivery for individuals with chronic conditions, occupational therapist can be the team

member who can assess and teach self-management and coach in behavioral changes (Foster et al, 2008).

Summary

The health care reforms mandated by the ACA are changing the way health care is being delivered in United States. The Triple Aim Initiative provides a theoretical framework to simultaneously improve the individual experience of care, to improve the health of populations, and to reduce the per capita cost of care. This has put primary care in the forefront of the health care system. The Triple Aim Initiative makes primary care the first point of entry for the patient into the health care system to receive ongoing continuum of care. The problem is that the current providers of primary care are not aware of the benefits of having an occupational therapist as part of the redesigned model of primary care delivery.

This Capstone Project will provide an educational in-service to current primary care providers to increase the awareness of the educational background, scope of practice, and the benefits that occupational therapy can bring to a primary care team model. By being an active team member and collaborator, occupational therapists can break new ground in the changing environment of healthcare. This can significantly change the way occupational therapists are viewed by other health care professionals. Occupational therapists can be seen not only from a rehabilitative perspective but also as providers of primary care services to achieve the Triple Aim Initiative. A thorough review of the literature will be conducted in the next section to inform this Capstone Project.

Section 2

Review of the Literature

Introduction

This section will provide an overview of topics related to the Capstone Project. A review of the literature was conducted related to the Affordable Care Act (ACA), the Triple Aim Initiative, primary care in federally qualified health centers (FQHCs), changes affected by the ACA, creation of new teams or models of practice in primary care or interprofessional practice and the role of occupational therapy in primary care. The search terms used were occupational therapy, primary care, ACA, FQHC, PCMH, the Triple Aim Initiative, interprofessional teams, collaborative teams, health care and health care reform. The databases used were EBSCO, CINAHL, Boolean Cochrane, MEDLINE, AOTA, Academic Search Complete, Library Express and Google Scholar.

Affordable Care Act (ACA)

The ACA is a newly enacted law but the foundational concepts have a long history in the United States. President Roosevelt had drafted a health insurance proposal, but the Social Security Act was signed instead (Social Security, 2015). President Harry Truman tried for a national health-insurance plan but the Korean War sidelined it. President Lyndon Johnson enacted Medicare and Medicaid in 1965 to cover the elderly, poor and disabled, but stopped short of universal coverage. Presidents Jimmy Carter, Bill Clinton and George W. Bush attempted but failed to provide universal coverage (Saldin, 2011). President Barack Obama signed the ACA on March 23, 2010, but this nationwide health care initiative had been in the making for years.

The ACA has been implemented fragmentally since its inception. In 2010, the ACA provided tax credit to small businesses. In 2011, the ACA provided incentives to physicians to coordinate patient care and improve quality of care by reducing unnecessary hospital admissions. In 2012, hospitals were offered incentives by the ACA to improve the quality of care. In 2013, primary care physicians received new funding from changes brought by the ACA to cover preventative care. By 2014, the ACA made provisions where every American could buy health insurance and by 2015, physician payments became tied to the quality of care provided (Affordable Care Act Time Line, 2012; Bliss, 2013). There still may be more changes to come due to the interpretations of the law by future Congresses (Hayes, 2011).

As the ACA has been implemented, the face of health care in America has gradually changed. Hospitals were initially only considered as a place that took care of people's suffering just before they died (Saldin, 2011). Now, there is an ever-growing complexity in medical care as the needs of the public have changed. Furthermore, technology and medical advancements have added to the complexity of medical care (Institute of Medicine [IOM], 2001). To meet the needs of populations, health care will have to be patient centered, safe, effective, timely, efficient and equitable (IOM, 2001). In other words, health care providers will need to offer safe, efficient and evidence-based care to all patients. Health care providers will be limited to providing only services that are needed and from which the patient can benefit. Health care providers will provide care that is respectful of each individual patient's needs and values. Health care providers will not vary services from one individual to the next, and services will be provided in a timely manner. The ACA is mandating a more organized and universal health system for the United States (Edwards et al, 2012). This new model has a greater emphasis on primary care.

Primary Care

The roots of primary health care go back to 1948 with the Universal Declaration of Human Rights, which established health care as an inalienable human right. This document emphasized equality of access and ensured that those with the greatest need for health care were able to participate in quality health care programs (Wollumbin, 2012). In the United States, the creation of family medicine as a specialty started in 1969, thus establishing the concept of primary care (Green & Hickner, 2006). But the principles of primary health care were formally defined in 1978 at the Alma Ata Conference (Wollumbin, 2012). The definition included ideas of preference for non-technological interventions such as nutrition, sanitation and community involvement in health care strategies. It also viewed health care as inseparable from socio-economic development and a major component for social justice with the goal of "Health for All" by the year 2000 (Wollumbin, 2012). The Health Maintenance Organization Act of 1973 emphasized primary care services but the role of primary care became like a "gatekeeper" for specialized services (IOM, & Donaldson, 1996, p. 37). Now with outcome-based accountability, health care reforms and the introduction of the ACA, primary care has been placed in the forefront of the United States health care system.

Primary care physicians are accountable for providing services that are integrated, comprehensive, continuous, and coordinated in the context of family and community. Primary care includes physical, mental, social and emotional concerns of the individual in a sustained relationship (IOM, & Donaldson, 1996). The scope of primary care covers a mixture of health problems and may be characterized as:

1. Acute: The primary care clinician evaluates set of symptoms that may be minor or may need further evaluation by a specialist.

2. Chronic: The primary care clinician may provide ongoing care for patients who may have one or more chronic disease or condition.
3. Prevention and early detection: The primary care clinician may provide periodic health assessments or provide early screening for detection of conditions, provide patient education and risk assessments.
4. Coordination of other services: The primary care clinician would refer to other specialists or coordinate patient education and provide advice for further care. (IOM, & Donaldson, 1996, p. 58).

Primary care addresses the need of patients across a spectrum of ages and health problems. It is provided in a variety of settings including ambulatory clinics, hospitals, home, community health centers, and thus may have a large range and diversity of populations (McDaniel & deGruy III, 2014, p. 329).

The ACA has increased access to primary care, but the supply of providers is not met by the demand that is being created. By year 2020, there will be a deficit of 45,000 fewer primary care physicians than needed to serve the primary care patient population (Jacobson & Jazowski, 2011). The increase in access to health care insurance to 32 million more Americans further accentuates the problem. The ACA and new health care models are putting increased stress on the primary care physicians. This creates professional burnout, which negatively affects clinical outcomes, resulting in patient dissatisfaction and possibly increases costs. With the increase in demand for primary care for prevention services and health promotion, one of the suggestions to decrease workload on primary care physicians is to expand the roles of other health care professionals. By allowing others to assume more responsibilities, individual patients can be provided more education in preventative care and chronic health care conditions (Bodenheimer

& Sinsky, 2014). This expansion of the roles in primary care will be beneficial in a FQHC or a PCMH.

Primary Care Medical Home or Patient Centered Medical Home (PCMH)

The term "medical home" was first introduced in 1967 by the American Academy of Pediatrics, but it was not until 1978, during the World Health Organization's conference on Primary Health Care at Alma Ata, that concepts of PCMH were included in primary care. It included access to comprehensive and continuous care and integration to include a team-based approach with patient education and participation. The Institute of Medicine in 1996 introduced the chronic care and medical home model. In 2006, the Patient-Centered Primary Care Collaborative was formed to develop the PCMH (Arend, Tsang-Quinn, Levine, & Thomas, 2012). The PCMH is a comprehensive, patient-centered, coordinated, accessible model of primary care. It is targeted to improve health outcomes, improve quality and cut costs. It is designed to meet the goals of the Triple Aim Initiative. It is focused on enhancing the patient care experience and also improves the providers' experience (Nielsen, Langer, Hacker, & Grundy, 2012). Thus, conceptually the PCMH describes all the attributes of primary care, which are easy access, continuity of care, comprehensive care and a team-based approach in a managed, coordinated way. It is the achievement of safe care to include quality and value (Arend et al, 2012).

The Agency for Healthcare Research and Quality (AHRQ) defines a medical home as a model of primary care organization that has the following five functions and attributes:

1. Comprehensive care: A PCMH will be accountable for a patient's physical and mental health care needs, provided by a team of care providers. All areas of care will be covered including acute, chronic, preventative and wellness.

2. Patient-centered care: The needs of the patient and the family will be addressed at their level of understanding, with respect to each patient's unique needs, culture, values and preferences. It will be a relationship with the patient and family members as the core members of the care team.

3. Coordinated Care: The care will be coordinated across all specialty care, hospitals, home health care, community and support services with open communication amongst all concerned.

4. Accessible: There will be shorter wait times, with increased accessibility in person, or by electronic access or any other alternative methods of communication.

5. Quality and Safety: Shared decision making using evidence-based data and clinical decisions will be followed with patients and family participation, to improve patient experience and satisfaction (AHRQ, 2015).

The PCMH is expected to improve access to primary care and communication between patients and their providers. Currently in the United States, only 27% of adults can reach their primary care physicians either by phone or receive after hour care. In comparison, in the United Kingdom, Switzerland, France, New Zealand and Netherlands 70% of patients can schedule a same day or next day appointment with their primary care physician (Klein, Laugesen & Liu, 2013). In transforming to a PCMH, the benefits to individuals seeking medical care are better quality care, improved patient experience, continuity of care, improved prevention and disease management, a decrease in disparities based on income, a decrease in emergency department visits and a decrease in hospital admissions. There is also a decrease in provider burnout (National Committee for Quality Assurance [NCQA], 2014). But the transformation from a medical organization to a PCMH has challenges requiring time and significant financial

resources (Klein et al, 2013). Only 37 states have NCQA recognized PCMHs and the Commonwealth of Kentucky does not have one as of this writing. To transform to a PCMH, a facility needs financial and technical support, organized leadership, a team-based approach and delegation of self-management education to non-physician team members (NCQA, 2014).

Federally Qualified Health Centers (FQHCs)

President Lyndon Johnson established primary care centers in 1965 as part of his "War on Poverty" to improve health care for the poor and minority groups. This initiated the concept of health care in the United States as a right for all. FQHCs are funded under Section 330 of the Public Health Service Act of 1996 and maintain an "open door" policy (Wright, 2013). To achieve the designation of FQHC from the Bureau of Primary Health Care (BPHC) and the Centers for Medicare and Medicaid Services (CMS), a center must:

1. Provide all required primary and preventative services as appropriate,
2. Provide a sliding fee scale and see all patients regardless of their ability to pay,
3. Be governed by a board of directors, out of which 51% must be consumers and
4. Provide access to medically underserved populations or medically underserved areas (Auxier, Hirsh, & Warman, 2013).

Federally qualified health centers provide primary care and preventative health services to people of all ages across the lifespan, either on site or through a referral system. Access to care must be provided 24 hours a day, seven days a week or by using an on-call answering service, with care available regardless of the person's ability to pay (Sefton, Brigell, Yingling, & Storfjell, 2011). Because of the consumer governance mandate, FQHCs are more responsive to the needs of the community (Wright, 2013). FQHCs are distinguished from free clinics or other

community health centers as they provide comprehensive primary care (Poppitt & Dasco, 2010, p. 2)

Since 2009, there has been an increase in the patients being served at health centers by five million per year, with approximately 21.7 million people treated in 2013. Health centers employ 156,000 individuals nationwide, with health centers adding 43,000 jobs over the last five years (HHS, 2015). The current multi-disciplinary clinical workforce consists of 10,700 physicians and more than 8000 nurse practitioners, physician assistants and certified nurse midwives (HHS, 2015). High quality of care is provided at the health centers with improved patient outcomes and a decrease in cost to the health system as demonstrated by a decrease in use of emergency departments and hospital admissions (HHS, 2015).

Federally qualified health centers have proven to be effective in improving access to care for underserved populations. FQHCs provide and promote preventative screenings, provide chronic disease management and offer a 24% reduction in cost of care (Calman, Golub, & Shuman, 2012). Thus, health centers play a lead role in the success of the ACA in managing patients with multiple health needs and in overcoming geographical, cultural, linguistic and other barriers. FQHCs will have a team-based approach including physicians, nurse practitioners, physician assistants, nurses, dental providers, midwives, behavioral health care providers, social workers, health educators and possibly other allied health professionals such as occupational therapists in the near future (HHS, 2015). Some authors believe "the FQHC model may be an antidote to the "broken" US health care system by providing a foundation for accessible, affordable primary-care services similar to those found in successful health systems elsewhere in the world" (Calman et al, 2012, p. 528).

Implementing the FQHC model comes with challenges and benefits. In a study done over a nine-year period in New York, a FQHC converted to a PCMH to optimize care for the chronically ill. Electronic health records and team models of care had to be adopted first in order to reach the NCQA qualification standard. Because of the team member approach, the efficiency and effectiveness of care increased as the visits were distributed among other health professionals, and not the primary care physician alone. There were especially noted improved outcomes of care for the severely chronically ill patient population (Calman et al, 2013).

Triple Aim Initiative

The concept design of the "Triple Aim" Initiative is to change the current health system in three dimensions simultaneously by "improving the individual experience of care, improving the health of populations, and reducing the per capita costs of care for populations" (Berwick et al, 2008, p. 760). The Triple Aim is be used as a guiding factor to develop new ways of delivery of health care. It is changing the scope for primary care as more individuals have health insurance and have increased access to medical advancements and new treatments (McCarthy, 2015). As an example, the integrated care system in Germany has implemented a similar Triple Aim Initiative and found that quality, efficiency and member loyalty increased (Schulte & Pimperl, 2013). The outcome measures used were mortality for quality, margin for efficiency and rate of insurant turnover for member loyalty. This is one indication that further research is needed using outcome measures applicable to the current healthcare system in the United States (Schulte & Pimperl, 2013).

What are the outcome measures for the current system? Each dimension of the Triple Aim is based on a different framework. The dimension to measure "improvement in the individual experience of care" will measure outcomes related to safety, effectiveness, timeliness,

equitability, and efficiency of care (Institute of Medicine, 2001). The dimension to measure "improving health of populations" will be measured by mortality, healthy life expectancy, health and functional status and the incidence and prevalence of a major chronic condition. The third dimension to measure will be the "reduction in per capita costs of care for populations" which will include the supply of the health care providers and the demand of the overall community. To achieve an overall value, the three dimensions will have to be combined. As of September 2012, thirty-two sites were participating in the Institute for Healthcare Improvement Triple Aim Improvement Collaborative, to develop examples to measure the Triple Aim Initiative (Stiefel & Nolan, 2013).

The Role of Occupational Therapy in Primary Care

Occupational therapy by definition is the therapeutic use of occupations. Individuals or groups perform these occupations as everyday life activities. The purpose of occupational therapy is to enhance or enable participation in the home, school, workplace, community or any other setting. The overarching goal of occupational therapy is to change roles, habits and routines to achieve health, well-being and participation in life. Mental and physical health is achieved through engagement in occupation (AOTA, 2014). Thus, it includes every activity that an individual, a group, a set of population or organization may participate in to support their daily functions. Anyone who has or is at a risk for developing an illness, disease, condition or impairment can benefit from occupational therapy services. Occupational therapists are trained to facilitate changes in a person's physical, mental cognitive, psychosocial, or sensory perceptual areas of performance. Occupational therapists can address physical health, mental health and well-being and thus improve quality of life (AOTA, 2011). Occupational therapy may adapt or modify the environment, for habilitation, rehabilitation or for promotion of health and wellness.

Occupational therapy is an evidence-based, science driven profession. It provides services to infants, children, youth, adults and the geriatric populations, thus covering the entire life span. Occupational therapy may provide services to clients who have physical, mental, sensory, perceptual, visual or behavioral difficulties. Occupational therapy uses client centered, meaningful and relevant activities to achieve health outcomes (AOTA, 2015a). Occupational therapists may also use physical agent modalities of superficial or deep thermal agents, electrotherapeutic agents or mechanical devices as preparatory methods to promote engagement in occupations (Bracciano, 2012). Occupational therapy helps people recover from illness or injury or disability, so that they can function independently in their environments. Clients may be individuals with brain injuries, cancer, chronic diseases, developmental or intellectual disabilities, injuries to the hands or extremities, stroke, or individuals who have difficulties eating, resting or being mobile in the community. Occupational therapy may also work with people who have difficulties with driving or may need home or work modifications so that they are able to be independent in their community setting (AOTA 2015b). Occupational therapists are experts in their knowledge of occupation as it relates to each environment. Occupational therapists can improve performance of the client despite the effects of disease or disability, thus achieving better health and active participation in life (Rogers, 2005). Traditionally occupational therapy services have been provided for rehabilitation or remediation of functions in hospitals, rehabilitation centers, nursing homes, outpatient centers or clients' homes.

Occupational therapists have skills and the scope to practice in any setting but are new to the primary care role model. In primary care settings, occupational therapists can improve patient function by integrating the medical needs and life demands into a care plan. This plan is occupation-based and fits the psychosocial, behavioral, cognitive, physical and psychological

needs of the client. Occupational therapists have skills to evaluate all factors that affect an individual's daily life. Occupational therapists possess a comprehensive understanding of the connection between health and occupation in providing health care. Occupational therapists are trained to be team members to teach health education and to promote health and self-management. Occupational therapy addresses the Triple Aim by teaching self-management to patients with chronic conditions and by promoting health to keep seniors in their own homes. An example would be where seniors are taught falls prevention techniques to remain safe even when living alone (Metzler et al, 2012). Occupational therapy can make an excellent contribution in the new and developing health care model by providing cost efficient and community-based services (Goldberg & Dugan, 2013).

While the primary care setting is new for occupational therapy, the assessments and the intervention needs are well established in the profession. The goals of both primary care and occupational therapy are to address health in a holistic pattern. Occupational therapy can help individuals achieve and maintain a healthy lifestyle within the community (Donnelly, Brenchley, Crawford, & Letts, 2013). Occupational therapy as a profession is able and is prepared to enter the primary care realm.

To date, occupational therapists have had limited experience providing services in primary care settings; however, there are examples in literature highlighting the role of occupational therapy in primary care. In an urban general practice in United Kingdom, two occupational therapists were added to extend the role of the general practitioner on the primary care-based mental health team (Cook et al, 2004). The focus of care was on management of the complex needs of the clients. The staff observed improved accessibility for the patients, increased community integration of the patients and improved continuity of care. There was a

decrease in social isolation for the patients by using a whole person approach to the physical, social and mental health spectrum. There was a positive impact on staff morale with development of skills for the staff and the caregivers.

At an FQHC affiliated with the University of Southern California, occupational therapy has already been included as part of the primary care team (Waite, 2014). At this facility, occupational therapy has been integrated as a regular service, with one full time occupational therapist working with six physicians. Payment for all services, including occupational therapy, has been bundled into one charge. In this newly redesigned model of primary care, population health, chronic disease management, coordination of care and behavioral health are addressed by the occupational therapist. Similar models of integrated occupational therapy services in FQHCs have been developed at clinics in Columbus, Ohio and Saint Louis University (Waite, 2014).

A Canadian study examined the integration of occupational therapy in primary care (Donnelly et al, 2013). Four interprofessional health care teams that included an occupational therapist were studied via interview and document analysis. Three main themes emerged as contributors to integration. First, a basic understanding of the role and scope of practice of occupational therapy was necessary. Education about occupational therapy to the primary care team was important, but most essential was to enhance understanding by the physician. Second, improving collaboration among team members was essential, but again opportunities to increase collaboration with the physicians improved integration of occupational therapy services. Finally, communication and trust improved collaboration and thus improved integration of occupational therapy. Additional factors that attributed to an increase in communication and trust were informal opportunities for communication that was only possible if all professionals were at the

same facility, meeting or gathering (Donnelly et al, 2013). Overall this study supports the need for educating health care providers about the role of occupational therapy in primary care.

Demands on current primary care providers in the United States are expected to increase. An additional 51,880 primary care physicians are going to be needed by 2025. This is primarily due to population growth, aging and insurance expansion and prompts new delivery models in primary care (Losby et al, 2015). This further justifies the need to integrate occupational therapy into primary care, initially focusing on the education of the role of occupational therapy in primary care.

Educating Others about Occupational Therapy in Primary Care

To integrate occupational therapy into primary care teams, education on the role of occupational therapy and the services it can provide as a profession needs to occur, with a specific focus on physicians (Donnelly et al, 2013). When two or more health care team members from different professions work together to provide integrated care to patients, it is called interprofessional collaboration. Interprofessional collaboration is encouraged in the new health care environment to improve communication, knowledge, trust, and decrease the rivalry in multi-disciplinary, team oriented environments (Braithwaite et al, 2012). Interprofessional collaboration is an integrated, team oriented, coordinated care approach, and is expected to have better clinical outcomes and more cost effective financial performance (Rozensky, 2014).

To achieve interprofessional collaboration, health care providers will have to work together, sharing responsibilities and being interdependent rather than autonomous. Interprofessional teams will need to be created where power is shared based on each professional's knowledge and expertise (Bethea, Holland, & Reddick, 2014). Active interdisciplinary educational programs for general practitioners in Australia have proven

effective and beneficial in increasing the understanding of the roles of allied health professionals, such as occupational therapists, with an increase in the multidisciplinary care planning (Mackenzie, Clemson, & Roberts, 2013). Occupational therapists can be pioneers in innovative approaches required to form interprofessional teams. An example of this is a team model that includes occupational therapy for management and prevention of falls for clients or seniors who were at a risk for falls in the community (Mackenzie et al, 2013).

At an FQHC affiliated with the Saint Louis University, School of Medicine, education of the medical director and staff were key in increasing the value and implementation of occupational therapy (Waite, 2014). After encountering and learning the scope of occupational therapy, the medical director gained a new perspective on the profession of occupational therapy. The center changed to a community center with an expansion of the role of occupational therapy to provide an occupational therapy perspective. The American Occupational Therapy Association (AOTA) is working to ensure the fullest possible involvement of occupational therapy in primary care. AOTA is promoting the value of occupational therapy in primary care by engaging leaders of the profession and outside stakeholders to help develop and promote the role of occupational therapy in primary care (Waite, 2014).

In Australia a need assessment study done with a population sample of individuals with chronic health conditions such as arthritis, identified a need for the promotion of occupational therapy services to the medical staff. Occupational therapy was recommended to improve quality of life and continuity of care for patients (Cranitch, 2003). In another Australian literature review, Haracz, Ryan, Hazelton and James (2013) suggest that an area that can be addressed by occupational therapists in primary care is advocating at the population or community level to increase level of physical activity. One of the population groups identified

were individuals at increased risk for obesity due to decreased physical activity, medication side effects, reduced access and poor dietary intake. An occupation focused behavioral change can be a shift from the traditional focus of developing personal skills to health promotion by occupational therapist (Haracz et al., 2013). In the United States, this health promotional occupational therapy role was also proven effective (Bazyk & Winne 2013). Bazyk and Winne (2013) emphasized prevention of obesity at the community level using meaningful occupations and structured leisure interests to improve physical health, mental health and well being.

An action research study was done using narratives as described by five occupational therapists that had worked in organizations using a health promotion framework (Wood, Fortune, & Mckinstry, 2013). They had previously worked in a traditional occupational therapy setting in Australia. They observed a close fit between occupational therapy and health promotion work. Occupational therapy as a profession has to work on improving the perception of occupational therapy using health promotion within the community of occupational therapists and also to other colleagues and managers. The education of occupational therapy must change with the evolving health care system so that health promotion in community health and primary care are included. This will increase the value of occupational therapy in health promotion within the community of occupational therapists and other medical providers (Wood et al., 2013).

To date, there are not many FQHCs where occupational therapists are part of primary care teams, so there are few role models. At present it is up to the profession and its practitioners to advocate for changes to the health care system to include occupational therapy in wellness, self management, screening, prevention, patient education and rehabilitation in the primary care setting (Metzler et al., 2012). Occupational therapists need to promote occupational therapy so they can function as front line primary care clinicians. Occupational therapists can share

responsibility and accountability for healthy engagement of patients and families in their communities. If patient care responsibilities are shared by the physician for patients who need education or health coaching for management of a chronic condition, it will free up time for the physician to manage patients requiring their unique expertise (Ladden et al., 2013). This shift will require physician education on the role of occupational therapy in primary care, in addition to education of occupational therapy practitioners who are new to the setting (Donnelly et al., 2013).

Summary

Occupational therapists have the scope, knowledge and understanding to be part of the redesigned team model of primary care. Occupational therapists have a place in the new and emerging area of primary care under the ACA. Occupational therapists can advocate being team members to help in the areas of chronic care, patient education, wellness, self-management, habilitation, rehabilitation, prevention, screening and mental health. These not only provide significant opportunities for the profession, but also can be a primary facilitator to contribute favorably to achieve the Triple Aim Initiative. To achieve a comprehensive understanding of each client through the full spectrum of their life span, the scope of occupational therapy goes beyond preventing and treating disease and disability. Occupational therapy can promote healthy living, can collaborate and strengthen alliances with current primary care teams and because of the "whole person orientation" of the profession, seize this newly created opportunity to guide the profession into the forefront of primary care (Metzler et al., 2012).

Section 3

Methods

Project Design

The objectives of the Capstone Project were to:

1. Provide education to health professionals who work at federally qualified health centers (FQHCs) regarding the role of occupational therapy in primary care.

2. Explain the benefits of occupational therapy in primary care with examples and case scenarios of occupational therapy services provided in three FQHCs in the United States.

3. Assess the knowledge of attendees about occupational therapy before and after the educational session.

To this end, an educational session about the role of occupational therapy in primary care was provided to health professionals at an FQHC in central Kentucky. Participants' knowledge about the role of occupational therapy in primary care were assessed before and after the presentation.

The Institutional Review Board at Eastern Kentucky University approved this project. The executive director and the medical director of an FQHC were initially approached in November 2014 to determine if the facility would be open to hosting an educational session about the role of occupational therapy in primary care. Upon their approval, the session took place on January 14, 2015 at a planned staff meeting.

Setting

The educational session took place in the boardroom of a FQHC in central Kentucky. This facility provides primary care services for men's and women's health, pre and post natal care, pediatric care, behavioral health services, laboratory and X-ray services, case management,

counseling, and dental care. The center also has programs for the homeless population and newly arrived refugees, including social service programs and assistance for health insurance applications. The FQHC provides health education classes on topics such as weight loss, smoking cessation, exercise, living well, nutrition, and diabetes management and prevention. To summarize, this center provides comprehensive primary health care services as well as supportive health care services that promote access to health care (Family Health Centers, 2015). This site was selected because it is a FQHC that does not yet incorporate occupational therapy services.

Participants

All individuals who routinely attend educational sessions or staff meetings at the FQHC were eligible for inclusion. This included 14 physicians, 18 nurse practitioners, and five behavioral health consultants. Any individuals not affiliated in some way with the FQHC were excluded from participation. The facility medical director circulated a flyer with information about the educational session titled, *The Role of Occupational Therapy in Primary Care*, at the FQHC. The facility medical director requested those who were interested to attend the session on January 14, 2015 at 8.00 a.m. The facility medical director also informed the attendees during the December 2014 staff meeting about the educational opportunity.

Ethical Considerations

Participation in the educational session was voluntary, and there was no penalty for not attending. The nature and purpose of the Capstone Project was explained in detail prior to participation, so a signed informed consent was not required.

To avoid any potential risk related to confidentiality, names or any identifying information of participants were not collected. All participants were health care professionals

over the age of 20, with no potential risks of physical, social, psychological, economic or legal harm possible from participation in the Capstone Project.

Educational Content

A PowerPoint enhanced presentation was designed to educate the health care professionals and to facilitate interactive discussion with examples of occupational therapy in primary care. It was planned to be no more than one hour in length. The content included a brief review of the ACA, the Triple Aim Initiative and the changing model of primary care delivery. The presentation defined occupational therapy, the scope of occupational therapy and how occupational therapy can be a significant contributor to the new team model approach in primary care. The benefits of occupational therapy were provided using case scenarios of patients being seen in a team model at similar FQHCs at the only three sites in the United States where occupational therapists are members of primary care team models.

Outcome Measure

Due to the role of occupational therapy in primary care being a new and emerging concept, there are no existing instruments to evaluate the presentation. Thus, a pretest/posttest instrument was developed to determine the change in the understanding of how occupational therapy can be part of the team model for future primary care services at the FQHC. A pretest measuring the awareness of role of occupational therapy in primary care was given to the attendees at the start of the educational session. At the end of the session attendees were given an identical posttest. See Appendix A for the pre/posttest. The colors of the test papers were different (pre-yellow, post-green) for ease in data collection.

A question/answer open forum discussion was encouraged throughout the presentation as questions arose. At the end of the educational presentation a question/answer session was

formally held. It was an interactive, educational presentation with impromptu question and answer dialogues between the investigator and participants. Questions relating to the educational background of occupational therapy, scope of occupational therapy and future team models including occupational therapy in primary care were the main topics of the discussion.

Timeline

See Table 3.1 for time frame of the Capstone Project.

Table 3.1. Time frame of Capstone Project Phases.

Time Frame	Capstone Project status
October 2014	Created pre/post test, flyer, proposal
November 2014	IRB application completed
	Scheduled presentation at FQHC
December 2014	Received approval from IRB
January 2014	Presentation of education at FQHC

Resources

The Capstone Project is part of required curriculum for the Doctor of Occupational Therapy degree at Eastern Kentucky University for the author. The doctoral candidate engaged in an evidence-based and occupation-based project. The Capstone Committee consisted of project mentor Dr. Dana Howell, committee member Dr. Amy Marshall and content expert Dr. Cindy Hayden. They provided supervision and support. The student faculty advisor was Dr. Christine Myers and the department chair was Dr. Colleen Schneck.

The financial responsibility for the Capstone Project was borne by the student. It included printing the pre/posttests and recruitment flyers, and light refreshments after the

presentation. The Capstone Committee and the online Doctor of Occupational Therapy program provided the technological support needed to complete the project. The services of the online library staff and support staff at Eastern Kentucky University were used on multiple occasions.

Evidence of Site Support

Letters of support by the medical director, the chief executive officer, the notice of approval by the Institutional Review Board and the flyer to announce the educational opportunity are available upon request.

Section 4

Results and Discussion

Introduction

The purpose of the Capstone Project was to communicate, influence and educate physicians, nurse practitioners and other primary care providers regarding the role of occupational therapy in primary care. This was to increase awareness of the scope of occupational therapy and expand the role of the profession in a changing area of health care. An educational presentation was done on January 14th, 2015 at a federally qualified health center in Kentucky with 37 participants. A lecture was delivered using PowerPoint to illustrate the material. A pretest was given prior to the start of the session and a posttest was given once the presentation, questions session and discussions were complete.

Results of Evaluation of Project Objectives

There were 14 physicians, 18 nurse practitioners, and five behavioral health consultants who attended the educational session. The results of their pre/posttests are found in the tables below.

Table 4.1. Responses by physicians, nurse practitioners, and behavioral health consultants to conditions that they think an occupational therapist can treat.

Conditions	**Physicians** n=14		**Nurse Practitioners** n=18		**Behavioral Health** n=5		**All disciplines** n=37	
	Pretest n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)
Cardiovascular	11(79)	14(100)	12(67)	18(100)	2(40)	5(100)	25(68)	37(100)
Developmental delays	13(93)	14(100)	18(100)	18(100)	4(80)	5(100)	35(95)	37(100)
Metabolic	9(64)	14(100)	11(61)	18(100)	2(80)	5(100)	22(59)	36(97)

disorders								
Orthopedic	14(100)	14(100)	18(100)	18(100)	5(100)	5(100)	37(100)	37(100)
Pulmonary	13(93)	14(100)	11(61)	18(100)	2(40)	4(80)	26(70)	36(97)
Chronic	12(86)	13(97)	16(89)	18(100)	3(60)	5(100)	31(84)	36(97)
Neurologic	14(100)	14(100)	17(94)	18(100)	4(80)	5(100)	35(95)	37(100)
Muscle or joint disorders	13(93)	14(100)	18(100)	18(100)	4(80)	5(100)	35(95)	37(100)
Psychiatric	6(43)	14(100)	9(50)	18(100)	2(40)	5(100)	17(46)	37(100)
Surgical interventions or related issues	10(71)	12(86)	13(72)	18(100)	4(80)	5(100)	27(71)	35(95)

Table 4.2. Responses by physicians, nurse practitioners, and behavioral health consultants to age groups that they think an occupational therapist can treat.

Age Groups	**Physicians** n=14		**Nurse Practitioners** n=18		**Behavioral Health** n=5		**All disciplines** n=37	
	Pretest n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)
0-3	14(100)	14(100)	15(83)	18(100)	4(80)	5(100)	33(89)	37(100)
4-22	14(100)	14(100)	17(94)	18(100)	5(100)	5(100)	36(97)	37(100)
23-64	14(100)	14(100)	18(100)	18(100)	5(100)	5(100)	37(100)	37(100)
65+	14(100)	14(100)	18(100)	18(100)	5(100)	5(100)	37(100)	37(100)

Table 4.3. Responses by physicians, nurse practitioners, and behavioral health consultants to interventions that they think an occupational therapist may use with a client.

Interventions	Physicians n=14		Nurse Practitioners n=18		Behavioral Health n=5		All disciplines n=37	
	Pretest n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)
Therapeutic use of occupations exercises & activities	13(93)	14(100)	18(100)	18(100)	4(80)	5(100)	36(97)	37(100)
Educate clients & caregivers	13(93)	14(100)	17(94)	18(100)	5(100)	5(100)	35(95)	37(100)
Coordinate client care & transition	12(86)	13(93)	15(83)	18(100)	5(100)	5(100)	36(97)	37(100)
Modify environment to improve functions	13(93)	14(100)	18(100)	18(100)	5(100)	5(100)	36(97)	37(100)
Administer physical agent modalities	8(57)	13(93)	13(72)	17(94)	5(100)	5(100)	26(70)	35(95)
Train clients to use assistive technology	12(86)	14(100)	17(94)	18(100)	5(100)	5(100)	34(92)	37(100)
Enhance functional mobility and positioning	12(86)	14(100)	16(89)	18(100)	4(100)	5(100)	32(86)	37(100)
Low vision rehabilitation	13(93)	14(100)	13(72)	18(100)	4(80)	5(100)	30(81)	37(100)

Table 4.4. Responses by physicians, nurse practitioners, and behavioral health consultants to indicate if they think that occupational therapist (OT's) are licensed professionals.

Are OT's licensed?	**Physicians** n=14		**Nurse Practitioners** n=18		**Behavioral Health** n=5		**All disciplines** n=37	
	Pretest n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)
Yes	13(93)	14(100)	18(100)	18(100)	5(100)	5(100)	36(97)	37(100)
No	0	0	0	0	0	0	0	0
Not answered	1(7)	0	0	0	0	0	1(3)	0

Table 4.5. Responses by physicians, nurse practitioners, and behavioral health consultants to indicate if they have made a referral for occupational therapy (OT) services in the past.

Have you referred for OT in the past?	**Physicians** n=14		**Nurse Practitioners** n=18		**Behavioral Health** n=5		**All disciplines** n=37	
	Pretest n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)	**Pretest** n (%)	**Posttest** n (%)
Yes	13(93)	14(100)	8(44)	8(44)	2(40)	3(60)	23(62)	25(68)
No	0	0	10(56)	10(56)	2(40)	1(20)	12(32)	11(30)
Not answered	1(7)	0	0	0	1(20)	1(20)	2(5)	1(3)

Table 4.6. Responses by physicians, nurse practitioners, and behavioral health consultants to indicate if they may make a referral for occupational therapy (OT) services in the future.

Will you refer for OT in the future?	Physicians n=14		Nurse Practitioners n=18		Behavioral Health n=5		All disciplines n=37	
	Pretest n (%)	Posttest n (%)	Pretest n (%)	Posttest n (%)	Pretest n (%)	Posttest n (%)	Pretest n (%)	Posttest n (%)
Yes	13(93)	14(100)	16(89)	17(94)	2(40)	3(60)	31(84)	34(92)
No	0	0	0	0	1(20)	1(20)	1(3)	1(3)
Not answered	1(7)	0	1(6)	1(6)	1(20)	1(20)	3(8)	1(3)
May be	0	0	1(6)	1(6)	0	0	1(3)	1(3)
Don't know	0	0	0	0	1(20)	0	1(3)	37(100)

Table 4.7. Responses by physicians, nurse practitioners, and behavioral health consultants to indicate if occupational therapists (OT's) can address condition management in primary care.

Can OT's address condition management?	Physicians n=14		Nurse Practitioners n=18		Behavioral Health n=5		All disciplines n=37	
	Pretest n (%)	Posttest n (%)	Pretest n (%)	Posttest n (%)	Pretest n (%)	Posttest n (%)	Pretest n (%)	Posttest n (%)
Yes	13(93)	14(100)	17(94)	18(100)	4(80)	5(100)	34(92)	37(100)
No	0	0	1(6)	0	1(20)	0	2(5)	0
Not answered	1(7)	0	0	0	0	0	1(3)	0

Table 4.8. Responses by physicians, nurse practitioners, and behavioral health consultants to indicate if occupational therapist (OT's) can assist clients with safety in their environments.

Can OT's assist clients with safety in environment?	Physicians n=14		Nurse Practitioners n=18		Behavioral Health n=5		All disciplines n=37	
	Pretest n (%)	Posttest n (%)	Pretest n (%)	Posttest n (%)	Pretest n (%)	Posttest n (%)	Pretest n (%)	Posttest n (%)
Yes	13(93)	14(100)	18(100)	18(100)	5(100)	5(100)	36(97)	37(100)
No	0	0	0	0	0	0	0	0
Not answered	1(7)	0	0	0	0	0	1(3)	0

Table 4.9. Responses by physicians, nurse practitioners, and behavioral health consultants to indicate if occupational therapist (OT's) can assist clients achieve an optimum quality of life.

Can OT's assist clients optimize quality of life?	Physicians n=14		Nurse Practitioners n=18		Behavioral Health n=5		All disciplines n=37	
	Pretest n (%)	Posttest n (%)	Pretest n (%)	Posttest n (%)	Pretest n (%)	Posttest n (%)	Pretest n (%)	Posttest n (%)
Yes	13(93)	14(100)	18(100)	18(100)	5(100)	5(100)	36(97)	37(100)
No	0	0	0	0	0	0	0	0
Not answered	1(7)	0	0	0	0	0	1(3)	0

Discussion

A discussion with attendees followed the educational session. The questions raised by attendees were in regards to:

- Educational level of occupational therapists.
- Colleges for occupational therapy in the area.

- The difference between occupational therapy and physical therapy.
- How many years of training are required to achieve a degree in the field of occupational therapy.
- The difference between occupational therapy and behavioral health. One of the participants made a comment that occupational therapy was more inclusive of the patients' daily routines, habits and rituals, covering more areas and taking into account the person's daily life situations.
- If a referral is needed for occupational therapy services.
- If certain diagnoses were needed to make a referral for occupational therapy services.
- All participants were very interested in the adaptive equipment, adaptations and splints presented either as samples during the presentation or shown in the PowerPoint presentation.
- The participants were interested in knowing in which area the presenter currently worked. The participants were informed that the presenter has been providing home health occupational therapy services in a region similar to the location of the FQHC where the presentation was being held. When that was discovered, there were more questions from all participants regarding follow through of routines in the homes by the patients, follow through of instructions provided by the physicians, falls prevention and community involvement. There were discussions of the different level of involvement between patients and the medical community in home health and safety in home for health providers. Examples of occupational therapy in home health were discussed.

- Questions regarding payment of services had just started when the presenter was notified that the allotted time was ending and thus those were deferred to a future educational presentation.

The primary objective of this Capstone Project was to provide education regarding the role of occupational therapy in primary care to physicians, nurse practitioners and behavioral health consultants who work in primary care at FQHCs in central Kentucky. The educational presentation was able to inform the participants how occupational therapists can be part of the primary care team to aid in providing patient-centered, cost effective services to improve the individual's experience of care, improve the health of populations and reduce the per capita cost of care for primary care patients in Kentucky to meet the Triple Aim Initiative. Even though the participants demonstrated an awareness of occupational therapy during the pretest, the presentation was able to increase the understanding of the role of occupational therapy. The discussion session following the presentation also appeared to demonstrate an increase in participant awareness of occupational therapy and its role in primary care in areas that were not included on the pre or posttest.

In this presentation, the participants were learning not only about occupational therapy but also about how occupational therapy will fit in the new model of health care. In the United States, the role of occupational therapy in primary care is a newly emerging concept (Metzler et al, 2012). Donnelly et al. (2013) expressed difficulty finding practice examples of occupational therapy within primary care settings in Canada, where occupational therapists have been attempting to enhance role of occupational therapy in primary care for the last two decades. Because the ACA, the Triple Aim Initiative and the transformation of the primary care delivery model is a new concept, it may be difficult for health care providers in the current system to

measure, visualize and conceptualize. Since the Triple Aim is the primary focus and reason for incorporating occupational therapy in the redesigned primary care models, the Triple Aim has to be first understood to accept and understand the role of occupational therapy in primary care (Goldberg & Dugan, 2013). Additional educational sessions may be needed to continue to explain and define the role of occupational therapy in primary care.

Although attendees at this presentation already had a fairly good understanding of occupational therapy, the session did raise awareness of additional ways that occupational therapy may benefit primary care. One of the participants had difficulty understanding the role of occupational therapy in their patient population of maternal care or women's health issues. The presenter gave an example of helping women to optimally manage their medications, and emphasized the concept of follow through of the physician-prescribed plan of care to achieve the goal of womens' health management. This also furthered a discussion of facilitation of a long-term relationship with the primary care team to increase coordination and continuity of care. This is supported by qualitative research done by Cook, Howe and Veal (2004), who described the roles of two occupational therapists that were expanded to focus on the complex needs of their patients. The patients not only achieved the goals of having their social and practical needs met, but also were engaged in the community and had improved access to care. In the new health care model, occupational therapists will be able to assist in coordinating client care, assist in transitioning health care services between primary care, home, hospital, nursing home and community, and assist the primary care physician in coordinating the use of the entire health care system (AAFP, 2015a). Expanding the role of occupational therapy on the primary care team may help meet the needs of all populations, where health care is patient centered, safe, effective, timely, efficient and equitable (IOM, 2001).

Interprofessional collaboration is a crucial aspect of the primary care team model. For successful interprofessional collaboration, each profession has to be knowledgable in the education, scope of practice and the range of expertise of the team members (Bethea et al., 2014). Goldberg and Dugan (2013) noted that most primary care physicians admitted they were not aware of the education and training of occupational therapists. The majority of the participants at this educational session were physicians and nurse practitioners (32 out of 37), who are able to make referrals to occupational therapy in the current primary care model. However, without knowledge of the role and scope of occupational therapy in primary care, these health care providers may be less likely to make such a referral. Branson et al. (2003) reported that the lack of knowledge and awareness that physicians may have of other health professionals may actually decrease patient satisfaction. Physician and nurse practitioner education about the role and scope of occupational therapy may ultimately lead to increased acceptance of occupational therapy and improved integration of occupational therapy in future primary care team models (Donnelly et al, 2013). For example, one primary care physician who attended the session later enquired about occupational therapy for a patient at his regular scheduled primary care visit to a FQHC. The physician also requested the name of the presenter. Promoting occupational therapy to physicians through presentations and educational sessions is a positive contributory factor to increase their understanding of occupational therapy services. Donnelly et al. (2013) recommends focusing education on current primary care providers, specifically the physicians and nurse practitioners, on the role of occupational therapy in primary care. While every profession needs to understand the scope of practice of other health professionals, occupational therapists have the responsibility to articulate their own role in primary care (Seruya, 2015).

The scope of practice of occupational therapists is similar to primary care physicians who are accountable for the physical, mental, social and emotional concerns of the individual (IOM & Donaldson, 1996). Primary care by definition includes preference for non-technological interventions such as nutrition and community involvement in health care, and viewing healthcare as inseparable from the socio-economical environment (Wollumbin, 2012); all qualities well-suited to occupatioanl therapy. In the new health care delivery system, the emphasis of care will shift from habilitative services towards prevention and health promotion (Berwick et al, 2008, p. 764). Both occupational therapy and primary care physicians aim to address health holistically, considering the patient's complete context. To decrease the demand on primary care physicians, occupational therapists can assume some responsibilities to provide individual patient's education in preventative care and chronic health care conditions (Bodenheimer & Sinsky, 2014). Ladden et al. (2013) also suggest that if patient care responsibilites are shared with the physician, it will free up time for the physicians to manage patients who require their unique expertise.

A factor that was not emphasized during the presentation was payment for occupational therapy services in primary care. One participant noted on the posttest that lack of patient health insurance was one factor that might preclude future referrals to occupational therapy. However, for the last 45 years, HRSA has been delivering primary care at FQHCs regardless of the patients' ability to pay (HRSA, 2015b). This lack of knowledge about funding may explain why occupational therapy referrals were not made in the past by other providers of primary care services.

Limitations

The Capstone Project presentation was a one time delivery at a FQHC monthly meeting for providers of primary care, and may need to be presented again at different primary care settings. The participants worked at different sites for the FQHC and thus had different patient populations. As a result, not all participants' interests may have been addressed, as evidenced by the participant who had difficulty understanding the role of occupational therapy in their patient population of maternal care or women's health issues. The pre/posttest questions were fairly general, since the investigator was introducing role of occupational therapy in primary care to participants who saw a wide variety of patient populations. An increased focus could be achieved if the patient population was narrowed to the patient population that the participants were encountering. In the future, the presentation could be more tailored to address patient populations at the different sites.

This educational presentation included the scope and skill sets that occupational therapists can bring to primary care teams, but did not cover the educational requirements or the process of achieving qualifications from an occupational therapy program or where one was available in the local area. Given the questions raised by participants after the session, this would be important information to provide in future presentations.

The pretest and the posttest was developed by the investigator, and was not piloted. In the future the tests could be formatted differently. There were questions on the pretest that need not be repeated on the posttest, as that information did not change. An example is the question of making a referral in the past should be asked only on the pretest. The pretest and the posttest could be formatted differently for different professionals in the participant population. The behavioral health consultants had difficulty answering the questions of making occupational therapy referrals in the past or the future, as they do not write referrals. Better verbiage for the

test taken by the behavioral health consultants would have been to ask if they have made a recommendation for occupational therapy in the past, or if they will make a recommendation for occupational therapy in the future, by approaching the primary care physician.

The session could have had more information about the cost of adding occupational therapy to the primary care team model. The discussion was initiated at the end of the session, but was not completed due to time limitations. In the future, the presentation could be expanded to address how the cost of having an occupational therapist on the team would assist in decreasing the total cost of health care. The presentation should have also included the efforts of the American Occupational Therapy Association in promoting the value of occupational therapy in primary care (Waite, 2014).

Future Inquiry

The participants gained an understanding of the education and expertise level of occupational therapist, scope of practice and benefits of occupational therapy in primary care. The participants may be more likely to accept occupational therapy in future team models in primary care. However, repeated educational presentations will have to be conducted at several FQHCs to increase integration and acceptance of occupational therapist as a member on primary care teams. This Capstone Project provides a starting point for future presentations and educational sessions that can be conducted at the state, national or international level. A web enhanced, internet based online presentation is also a possiblity for future presentations. The Capstone Project added to the literature that interprofessional education can be gained with the use of PowerPoint enhanced presentations and open-ended discussion sessions.

Future research is indicated to determine which areas of primary care occupational therapists should focus initial efforts to educate current primary care providers. Occupational

therapists should build on the examples of other countries where occupational therapy has already been successfully integrated in primary care. There are currently significant opportunities for occupational therapy to enter the primary care workforce. Future research needs to be initiated on how the addition of occupational therapy to the primary care team will lower health care costs. Suggested roles for occupational therapy in primary care that may serve to lower costs are condition and disease management with chronic care patients, health promotion education in diabetes or obesity management, mental health care, fall prevention, adaptive equipment training, splints for improved positioning, and family/caregiver education. Research is needed to determine the effectiveness of these and other interventions.

Summary

The Capstone Project was able to provide education to current primary care providers on the role of occupational therapy in primary care. The Capstone Project was able to demonstrate the presence of a significant opportunity for occupational therapists to be proactive to affect future delivery of primary care services in the United States. The Triple Aim calls for redesigning the primary care structure and service delivery methods. Occupational therapists need to seize the opportunity to be present at the first point of entry for the patient, to manage the patient with multiple health care needs and to decrease the expenditure of the United States health care system. To achieve the acceptance of occupational therapy as a contibuting team member in future primary care teams, education on the role of occupational therapy to current primary care providers is of utmost importance. The primary purpose of the Capstone Project to communicate and to influence and educate physicians, nurse practitioners and other primary care providers regarding the role of occupational therapy in primary care was met.

References

Affordable Care Act Time Line. (2012). *Perspectives: A magazine for & about women lawyers, 21*(2), 7.

Agency for Healthcare Research and Quality. (2015). *Defining the PCMH* | pcmh.ahrq.gov. Retrieved from http://pcmh.ahrq.gov/page/defining-pcmh

American Academy of Family Physicians. (2015a). *Primary care -- AAFP policies*. Retrieved from http://www.aafp.org/about/policies/all/primary-care.html

American Academy of Family Physicians. (2015b). *The value and scope of primary care.* Retrieved from http://www.aafp.org/medical-school-residency/choosing-fm/value-scope.html

American Occupational Therapy Association (2007). AOTA's Centennial Vision and Executive Summary. *American Journal of Occupational Therapy, 61*(6), 613-614

American Occupational Therapy Association. (2011). *Definition of occupational therapy practice for the AOTA model practice act*. Retrieved from http://www.aota.org/-/media/Corporate/Files/Advocacy/State/Resources/PracticeAct/Model%20Definition%20of%20OT%20Practice%20%20Adopted%2041411.pdf

American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process (3rd ed.). *American Journal of Occupational Therapy, 68*(Suppl. 1), S1– S48 . http://dx .doi .org/10 .5014/ajot .2014 .682006

American Occupational Therapy Association. (2015a). *Evidence-Based Practice - AOTA.* Retrieved from http://www.aota.org/About-Occupational-Therapy/Professionals/EBP.aspx

American Occupational Therapy Association. (2015b). *Rehabilitation, Disability, and Participation - AOTA*. Retrieved from http://www.aota.org/About-Occupational-Therapy/Professionals/RDP.aspx

Arend, J., Tsang-Quinn, J., Levine, C., & Thomas, D. (2012). The patient-centered medical home: History, components, and review of the evidence. *Mount Sinai Journal Of Medicine, 79(*4), 433-450. doi:10.1002/msj.21326

Auxier, A. M., Hirsh, H. K., & Warman, M. K. (2013). Behavioral health in federally qualified health centers: What practitioners and researchers need to know. *Professional Psychology: Research & Practice, 44*(6), 391-397. doi:10.1037/a0035039

Bazyk, S., & Winne, R. (2013). A multi-tiered approach to addressing the mental health issues surrounding obesity in children and youth. *Occupational Therapy In Health Care*, *27*(2), 84-98. doi:10.3109/07380577.2013.785643

Berwick, D. M., Nolan, T. W., & Whittington, J. (2008). The triple aim: Care, health, and cost. *Health Affairs*, *27*(3), 759-769. doi:10.1377/hlthaff.27.3.759

Bethea, D. P., Holland Jr., C. A., & Reddick, B. K. (2014). Storming the gates of interprofessional collaboration. *Nursing Management*, 40-45. Retrieved from DOI-10.1097/01.NUMA.0000453272.11253.01

Bliss, K. (2013). Role of advocacy in health care reform: Literature review and call to action. *American Journal of Health Studies, 28*(2), 41-49.

Bodenheimer, T., & Sinsky, C. (2014). From triple to quadruple aim: Care of the patient requires care of the provider. *Annals Of Family Medicine, 12*(6), 573-576. doi:10.1370/afm.1713

Bracciano, A. G. (2012). Physical agent modalities. *American Journal of Occupational Therapy*, *66*(6), S78-S80.

Braithwaite, J., Westbrook, M., Nugus, P., Greenfield, D., Travalgia, J., Runciman, W., . . . Westbrook, J. (2012). Continuing differences between health professions' attitudes: the saga of accomplishing systems-wide interprofessionalism. *International Journal for Quality in Health Care*, *25*(1), 8-15.

Branson, C., Badger, B., & Dobbs, F. (2003). Patient satisfaction with skill mix in primary care: a review of the literature. *Primary Health Care Research & Development (Sage Publications, Ltd.)*, *4*(4), 329-339. doi:10.1191/1463423603pc162oa

Calman, N. S., Golub, M., & Shuman, S. (2012). Primary care and health reform. *Mount Sinai Journal Of Medicine, 79*(5), 527-534. doi:10.1002/msj.21335

Calman, N. S., Hauser, D., Weiss, L., Waltermaurer, E., Molina-Ortiz, E., Chantarat, T., & Bozack, A. (2013). Becoming a patient-centered medical home: A 9-year transition for a network of federally qualified health centers. *Annals Of Family Medicine, 11*(Supp 1), S68-S73. doi:10.1370/afm.1547

Cook, S., Howe, A., & Veal, J. (2004). A different ball game altogether: staff views on a primary mental healthcare service. *Primary Care Mental Health, 2*(2), 77-89.

Cranitch, C. (2003). Conducting a needs assessment to justify the provision of occupational therapy services in a rheumatology outpatient clinic. *Australian Occupational Therapy Journal, 50*(1), 23-29. doi:10.1046/j.1440-1630.2003.00305.x

Donnelly, C., Brenchley, C., Crawford, C., & Letts, L. (2013). The integration of occupational therapy into primary care: a multiple case study design. *BMC Family Practice, 14*(1), 60-71. doi:10.1186/1471-2296-14-60

Edwards, T., Patterson, J., Vakili, S., & Scherger, J. (2012). Healthcare policy in the United States: A primer for medical family therapists. *Contemporary Family Therapy: An International Journal, 34*(2), 217-227. doi:10.1007/s10591-012-9188-4

Family Health Centers. (2015). *Health Services | Family Health Centers.* Retrieved from http://www.fhclouisville.org/health-services/

Foster, M. M., Mitchell, G., Haines, T., Tweedy, S., Cornwell, P., & Fleming, J. (2008). Does enhanced primary care enhance primary care? Policy-induced dilemmas for allied health professionals. *Medical Journal of Australia*, *188*(1), 29-32.

Ghorob, A., & Bodenheimer, T. (2012). Sharing the care to improve access to primary care. *The New England Journal of Medicine*, *366*(21), 1955-1957. Retrieved from nejm.org

Goldberg, D. G., & Dugan, D. P. (2013). *Review of new models of primary care delivery.* Retrieved from http://www.aota.org/-/media/Corporate/Files/Secure/Advocacy/Health-Care-Reform/commissioned-report.PDF

Green, L. A., & Hickner, J. (2006). A short history of primary care practice-based research networks: From concept to essential research laboratories. *Journal of The American Board of Family Medicine*, *19*(1), 1-10. doi:10.3122/jabfm.19.1.1

Haracz, K., Ryan, S., Hazelton, M., & James, C. (2013). Occupational therapy and obesity: An integrative literature review. *Australian Occupational Therapy Journal, 60*(5), 356-365. doi:10.1111/1440-1630.1206

Hayes, K. (2011). Overview of policy, procedure, and legislative history of the Affordable Care Act. *NAELA Journal, 7*(1), 1-9.

Health & Human Services (February, 2015). *Key features of the Affordable Care Act | HHS.gov/healthcare*. Retrieved from http://www.hhs.gov/healthcare/facts/timeline/index.html

Health Resources and Services Administration. (2015a). *Form 5A*. Retrieved from http://bphc.hrsa.gov/about/requirements/scope/form5aservicedescriptors.pdf

Health Resources and Services Administration. (2015b). *What is a health center?* Retrieved from http://bphc.hrsa.gov/about/index.html

Institute for Healthcare Improvement. (2014). *The IHI Triple Aim.* Retrieved from http://www.ihi.org/Engage/Initiatives/TripleAim/Pages/default.aspx

Institute of Medicine. (2001). Crossing the quality chasm: A new health system for the 21st Century. Retrieved from https://www.iom.edu/Reports/2001/Crossing-the-Quality-Chasm-A-New-Health-System-for-the-21st-Century.aspx

Institute of Medicine (U.S.), & Donaldson, M. S. (1996). *Primary care: America's health in a new era.*

Jacobson, P. D., & Jazowski, S. A. (2011). Physicians, the Affordable Care Act, and primary care: Disruptive change or business as usual? *Journal of General Internal Medicine*, *26*(8), 934-7. doi:10.1007/s11606-011-1695-8

Klein, D. B., Laugesen, M. J., & Liu, N. (2013, April). *The patient-centered medical home: A future standard for American healthcare?* Retrieved from http://www.columbia.edu/~nl2320/doc/Patient_Centered_Medical_Home_Final%20online.pdf

Ladden, M. D., Bodenheimer, T., Fishman, N. W., Flinter, M., Hsu, C., Parchman, M., & Wagner, E. H. (2013). The emerging primary care workforce: Preliminary observations

from the primary care team: Learning from effective ambulatory practices project. *Academic Medicine, 88*(12), 1830-1834. doi: 10.1097/ACM.0000000000000027

Losby, J. L., House, M. J., Osuji, T., O'Dell, S. A., Mirambeau, A. M., Elmi, J., . . . Schueter, D. F. (2015). Initiatives to enhance primary care delivery: Two examples from the field. *Health Services Research and Managerial Epidemiology*, 1-9. Retrieved from hme.sagepub.com

Mackenzie, L., Clemson, L., & Roberts, C. (2013). Occupational therapists partnering with general practitioners to prevent falls: Seizing opportunities in primary health care. *Australian Occupational Therapy Journal, 60*(1), 66-70. doi:10.1111/1440-1630.12030

McCarthy, M. (2015). ACA and the triple aim: Musings of a health care actuary. *Benefits Quarterly, 31*(1), 39-42.

McDaniel, S. H., & deGruy III, F. V. (2014). An introduction to primary care and psychology. *American Psychologist, 69*(4), 325-331. doi:10.1037/a0036222

Metzler, C. A., Hartmann, K. D., & Lowenthal, L. A. (2012). Health policy perspectives—Defining primary care: Envisioning the roles of occupational therapy. *American Journal of Occupational Therapy, 66,* 266–270. http://dx.doi.org/10.5014/ajot.2010.663001

Nanof, T., & Grooms, D. (2015). Proposed rule mandates coverage of habilitation services. *ASHA Leader*, *20*(2), 24-26.

National Committee for Quality Assurance. (2014). *The future of the patient-centered medical homes*. Retrieved from http://www.ncqa.org/Portals/0/Public%20Policy/2014%20Comment%20Letters/The_Future_of_PCMH.pdf

National Quality Forum. (2014). *NQF: Efficiency and value in healthcare: Linking cost and quality measures paper*. Retrieved from http://www.qualityforum.org/Publications/2014/11/Efficiency_and_Value_in_Healthcare__Linking_Cost_and_Quality_Measures_Paper.aspx

National Quality Forum. (2015). *NQF: Affordable care*. Retrieved from http://www.qualityforum.org/Topics/Affordable_Care.aspx

Nielsen, M., Langner, B., Zema, C., Hacker, T., & Grundy, P. (2012). *Benefits of implementing the primary care patient-centered medical home: A review of cost & quality results, 2012.* Retrieved from http://ahcwkwv.pcpcc.net/files/benefits_of_implementing_the_primary_care_pateint-centered_medical_home_0.pdf

Poppitt, K., & Dasco, S. T. (2010). Federally qualified health centers: A healthcare delivery model for a newly reformed health system. *Health Lawyer*, *23*(2), 1-16.

Pubic Law 111-148. (2010). Retrieved from http://www.gpo.gov/fdsys/pkg/PLAW-111publ148/pdf/PLAW-111publ148.pdf

Rogers, S. L. (2005). Portrait of occupational therapy. *Journal Of Interprofessional Care, 19*(1), 70-79. doi:10.1080/13561820400021767

Rosser, W. W., Colwill, J. M., Kasperski, J., & Wilson, L. (2011). Progress of Ontario's Family Health Team Model: A Patient-Centered Medical Home. *Annals Of Family Medicine, 9*(2), 165-171. doi:10.1370/afm.1228

Rozensky, R. H. (2014). Implications of the Patient Protection and Affordable Care Act: Preparing the professional psychology workforce for primary care. *Professional Psychology: Research & Practice, 45*(3), 200-211. doi:10.1037/a0036550

Rural Assistance Center. (2015). *Rural health and human services for Kentucky introduction - Rural Assistance Center*. Retrieved from http://www.raconline.org/states/kentucky

Saldin, R. (2011). Wonder drug or bad medicine? A short history of healthcare reform and a prognosis for its future. *Juniata Voices*, *11*83-91.

Schulte, T., & Pimperl, A. (2013). Pursuing the Triple Aim: A three-dimensional outcome evaluation of the integrated care project "Gesundes Kinzigtal"?. *International Journal Of Integrated Care (IJIC)*, *13*1-2.

Sefton, M., Brigell, E., Yingling, C., & Storfjell, J. (2011). A journey to become a federally qualified health center. *Journal Of The American Academy Of Nurse Practitioners, 23*(7), 346-350. doi:10.1111/j.1745-7599.2011.00621.x

Seruya, F. M. (2015, March). Allied health students' knowledge of occupational therapy: A pilot study. *Education Special Interest Section Quarterly, 25*(1), 1–4. Retrieved from http://www.aota.org/-/media/Corporate/Files/Secure/Publications/SIS-Quarterly-Newsletters/ED/EDSIS-March-2015.pdf

Social Security. (2015). *Social Security History*. Retrieved from http://www.ssa.gov/history/35act.html

Stiefel, M., & Nolan, K. (2013). Measuring the Triple Aim: A call for action. *Population Health Management*, *16*(4), 219-220. doi:10.1089/pop.2013.0025

Waite, A. (2014). Prime models: Showcasing occupational therapy's role on primary care teams. *OT Practice 19*(7), 8–10, 19. http://dx.doi.org/10.7138/otp.2014.197f1

Wollumbin, J. (2012). Holistic primary health care -- Origins and history. *Journal Of The Australian Traditional-Medicine Society, 18*(2), 77-80.

Wood, R., Fortune, T., & Mckinstry, C. (2013). Perspectives of occupational therapists working in primary health promotion. *Australian Occupational Therapy Journal, 60*(3), 161-170. doi:10.1111/1440-1630.12031

Wright, B. (2013). Who governs federally qualified health centers? *Journal Of Health Politics, Policy & Law, 38(*1), 27-55. doi:10.1215/03616878-1898794

Appendix 1

Pre/Posttest

Please specify your job title: _____

Place an **X** indicating the condition(s) that you think an occupational therapist can treat:

	Cardio- vascular conditions		Chronic conditions
	Developmental delays		Neurological conditions
	Metabolic disorders		Muscle or joint disorders
	Orthopedic conditions		Psychiatric conditions
	Pulmonary conditions		Surgical interventions or related issues

Place an **X** indicating the age group(s) that you think an occupational therapist can work with:

	0-3		4-22		23-64		65+

Place an **X** indicating interventions an occupational therapist may use with a client:

	Therapeutic use of occupations, exercises, and activities		Administer physical agent modalities (i.e. hot packs, ultrasound or electrical nerve stimulation)
	Educate clients and caregivers		Train clients to use assistive technology
	Coordinate client care and transition		Enhance functional mobility and positioning
	Modify environment to improve function		Low vision rehabilitation

Please place an **X** indicating the most appropriate response:

	Yes	**No**
Are occupational therapists' licensed professionals?		
Have you made a referral for occupational therapy services in the past?		
Will you make a referral for occupational therapy services in the future?		
Can occupational therapists address condition management in primary care?		
Can occupational therapists assist the client with safety in their environment?		
Can occupational therapists assist clients achieve an optimum quality of life?		