

2016

The Role of the Community Health Worker: An Educational Offering

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THE ROLE OF THE COMMUNITY HEALTH WORKER:
AN EDUCATIONAL OFFERING

A Project Presented

By

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to

The Faculty of the Graduate College

of

The University of Vermont

In Partial Fulfillment of the Requirements

For the Degree of Master of Science

Specializing in Nursing

December, 2016

Defense Date: November 11, 2016

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Abstract

Reducing health disparities among underserved and minority populations are an ongoing challenge for the United States' health care system. The Affordable Care Act proposes the addition of a Community Health Worker (CHW) to the health care workforce to serve as a liaison between community and health services as a possible solution to improve quality and health outcomes in underserved populations. The newly formed health care team created in collaboration with the Visiting Nurse Association of Chittenden and Grand Isle Counties will welcome the CHW as a new team member to help improve the care and coordination of services for New Americans. The purpose of this project is to educate a newly formed interprofessional health team on the role and utilization of the community health worker (CHW). The educational module was provided to all members of the Visiting Nurse Association (VNA) care team and the newly trained CHWs. The knowledge gained by participating in the educational offering is reflected by pre and post test score improvement in six out of seven questions. This educational module serves as the first structured and detailed program to introduce the role to facilitate integration of the CHW onto the VNA's care team.

Keywords: community health worker, nursing, interprofessional team

Table of Contents

Chapter One.....	3
1. Introduction.....	3
Purpose and Importance.....	3
Competencies for Interprofessional practice.....	4
Relationship to Advanced Practice Nursing.....	4
Contribution and Anticipated Benefits.....	5
Theoretical Model	6
Chapter Two.....	8
2. Literature Review.....	8
Community Health Worker.....	8
Community Health Worker and Nursing.....	9
Community Health Worker and Community Health Team.....	11
Community Health Workers and Refugee Populations.....	12
Community Health Workers and Home visits.....	12
Education of Interprofessional Team regarding CHWs.....	13
Summary.....	14
Chapter Three.....	15
3. Methods	15
Identification of Need	15
Development of Project Material	15
Enhancements or Inhibitors in Implementing Project Objectives	15
Persons/Situations/Cases Involved	16
Description and Discussion of Products of Project	16
Plan for Evaluation of outcome of project	17
Chapter Four.....	18
4. Evaluation and Discussion.....	18
Results.....	18
Evaluation.....	20
Implications.....	22
Limitations.....	24
Summary.....	25
References.....	27
Appendices.....	31
Pre and Post Test.....	31
Evaluation of CHW Education Module.....	33
IRB Not Research Determination.....	34

Chapter One

Introduction

Reducing health disparities among underserved and minority populations are an ongoing goal and challenge for the United States' health care system. The most recent *Racial and Ethnic Approaches to Community Health across the United States* (REACH U.S.) *Survey* by the Centers for Disease and Prevention in 2009 found that members of minority communities continue to have lower socioeconomic status, greater barriers to health care access, and more risk of disease burden than the general population living in the same county or state (CDC, 2011). The Affordable Care Act, Section 5313 proposes the addition of a Community Health Worker (CHW) to the health care workforce to serve as a liaison between community and health services by facilitating proper access to care, promoting healthy behaviors, and coordinating care to improve quality and health outcomes in underserved populations (ACA, 2010). CHWs provide a unique perspective, as they live and work in the communities they serve.

Purpose and Importance

The purpose of this project is to educate a newly formed interprofessional health team in the Visiting Nurse Association on the role and utilization of the community health worker (CHW). The importance of this project is clearly summarized by Findley et al., who suggested team understanding of the CHW role and benefits allowed for better integration of the CHW as a full member of the team and contributed to overall team productivity, quality of care, and improved patient outcomes (Findley, Matos, Hicks, Chang, & Reich, 2014). The addition of the CHW to the health team is a transformative

process and long-term success is dependent on the structured introduction and integration of this new member (Findley et al., 2014).

Competencies for Interprofessional practice

The World Health Organization (WHO) defines interprofessional collaborative practice as the joining of health care professionals from differing perspectives, working together as a team to provide care for patients, families, and communities (WHO, 2010). Collaborative practice is fundamental to providing and achieving high quality, patient-centered care (WHO, 2010). Interprofessional competencies engage individuals from different professions to interact and work effectively together as a team for the common goal of building a safer, integrated health care system (Interprofessional Education Collaborative Expert Panel, 2011).

Relationship to Advanced Practice Nursing

The benefits of this project will be presented using the National Organization of the Nurse Practitioner Faculties (NONPF) Core Competencies of Nurse Practitioner Practice (NONPF, 2012). “Successful achievement of the NONPF competencies for NP education is of greater value than the number of clinical hours the student has performed” (NONPF, 2008b). Upon graduation, the nurse practitioner candidate will possess all nine core competencies. Three competencies are discussed further.

Leadership Competency: Provides leadership to foster collaboration with multiple stakeholders to improve health care. This project will involve interprofessional practice using a community health team and will promote the nurse practitioner as a leader and vital contributor. The role of the nurse practitioner in team-based care is essential as a leader and champion for improved access, quality, and patient-

centered care (NONPF, 2012). In this project, leadership was needed to review the literature and then decide on the pertinent information to share about this new role.

Independent Practice Competency: Incorporates the patient’s cultural and spiritual preferences, values, and beliefs into health care. The ability of the nurse practitioner to incorporate a patient’s culture, values, and beliefs into the delivery of health care is an essential component of this project (NONPF, 2012). The nurse practitioner and CHW are effective in addressing and managing the health disparities of underserved and minority populations (Allen, Dennison Himmelfarb, Szanton, & Frick, 2014). The goal of this project is for the health care team to better understand the unique health needs of the community with the assistance of the community health worker (CHW).

Health care delivery Competency: Facilitates the development of health care systems that address the needs of culturally diverse populations, providers, and other stakeholders. The nurse practitioner as a facilitator of change in our health care system is critical to the project and the overarching goal. The U.S. health care system is evolving and adapting to provide easier access to care, cost effective care, and quality care. Together, the nurse practitioner and CHW team create an effective model of care to address the needs of underserved populations (Allen et al., 2014).

Contribution and Anticipated Benefits

The role of the community health worker is valuable to improving access, care coordination, and health behaviors of underserved and minority populations (Findley et al., 2014; Verhagen, Steunenbergh, de Wit, & Ros, 2014). In order to best utilize and communicate with the CHW in our local Vermont communities, formal education to

THE ROLE OF THE COMMUNITY HEALTH WORKER

introduce the role of the CHW and a discussion of their numerous benefits is warranted. This education module will help integrate the CHW with the community health care team, creating a seamless transformation of the team and a strong working relationship with the CHW. The education module will support the incorporation and integration of the CHW as a full team member. The community health care team will benefit by understanding the role and duties of the CHW. In addition, the team will come to understand the importance of the CHW in facilitating bidirectional communication between the team and the patient. Upon completion of the project, the anticipated benefits for the community health care team are their ability to 1) define the role of the CHW 2) identify specific CHW duties to address patient needs 3) how to communicate effectively with the CHW and 4) appreciate the need for cultural awareness in the care and services provided. Training for the team on how to work together with the CHW leads to a better integration of this new member (Findley et al., 2014).

Theoretical Model

The Health Promotion Model, originally written by Nola Pender in 1982, modified in the late 1980's and also in 1996, explores what motivates an individual to engage in healthy behaviors. Pender's model focuses on three domains, individual characteristics and experiences, behavior-specific cognitions and affect, and behavioral outcomes. The factors that influence health behaviors include individual characteristics of race, personality, age, ethnicity and socioeconomic status, as well as past practices. These factors influence a person's health behaviors (Pender, 2011). In addition, the individual has perceived benefits of actions that are reinforcing, perceived barriers that impede action, and perceived self-efficacy, a judgment of what the individual believes they are

THE ROLE OF THE COMMUNITY HEALTH WORKER

capable of (Pender, 2011). The goal of the interprofessional team with the addition of the community health worker (CHW) is to understand the individual experiences and characteristics that have shaped the behaviors of each patient. The hope is that the interprofessional team will work collaboratively to understand what prevents and/or promotes behaviors in our community dwelling patients. With the understanding of previous experiences and characteristics, the team can work in conjunction with the patient to solve problems and promote self-care through patient directed goals and commitments. In order for our patient to change health behaviors, an exploration of what influences their behavior is warranted and a key component of the larger project.

Chapter Two

Literature Review

Community Health Worker (CHW)

In the United States, CHWs have been used since the 1960's as a strategy to address health disparities among ethnic minorities, however interventions involving CHWs have increased in recent years and have shown to positively effect access to care, health behaviors, and health outcomes (Verhagen et al., 2014) .

CHWs have a unique understanding of the beliefs and barriers to health that are experienced by individuals from unique communities and are effective at promoting access to care. A randomized control study of Korean women found statistically significant increases in the completion of follow up appointments for breast cancer screenings in the intervention group that utilized a CHW (Maxwell, Jo, Crespi, Sudan, & Bastani, 2010). Similar results were reported in a study of Hispanic women which showed increased rates of endoscopies for colorectal screening with the aid of a CHW in comparison to usual care (Jandorf, Gutierrez, Lopez, Christie, & Itzkowitz, 2005).

In regards to health behaviors, two randomized control studies involving Hispanic women and cardiovascular health produced significant changes with the assistance of the CHW (Balcázar et al., 2010; Hayashi, Farrell, Chaput, Rocha, & Hernandez, 2010). A study by Hayashi et al, showed a greater degree of improvement in both eating habits and physical activity in the CHW intervention group (Hayashi et al., 2010). The second study found significant changes in salt, cholesterol and fat intake, as well as weight control practices among the intervention group that utilized a CHW (Balcázar et al., 2010). In addition, changes in participants perceived benefits and

THE ROLE OF THE COMMUNITY HEALTH WORKER

personal susceptibility to cardiovascular disease within the intervention group were increased, emphasizing the vital role of the CHW in changing health behaviors and enhancing self-management among minority groups (Balcázar et al., 2010).

Health outcomes can be positively affected by the use of the CHW in health care. A study of cardiovascular risk factors in Hispanics showed a statistically significant ($p < 0.001$) change in diastolic blood pressure with the aid of a CHW compared to educational materials (Balcázar et al., 2010). Positive trends were found for waist circumference, non-HDL cholesterol, and HBA1c in the CHW intervention group. However, no significant differences were reported for BMI, weight, blood glucose, or three other cholesterol measures. A second study involving Hispanic women found significantly higher decreases in systolic blood pressure favoring the CHW intervention over usual care (Hayashi et al., 2010). Further research of sustained results and changes with the use of the CHW is necessary to determine the true effect on health outcomes.

Community Health Worker and Nursing

The community health worker (CHW) is a newer member of the health care team and is able to share a close and unique understanding of the community served. The relationship enables the CHW to serve as a liaison, connecting health services and the community to help facilitate access to care, improve quality, and ensure culturally competent delivery of services (American Public Health Association, 2016). A systematic review of seven studies in the United States comparing the use of the CHW for health care delivery to usual care in the United States showed improved access to care, health behaviors, and to lesser extent better health outcomes in ethnic minority adults over 50 years of age (Verhagen et al., 2014).

THE ROLE OF THE COMMUNITY HEALTH WORKER

The CHW and nurses make an effective team for delivering necessary services to vulnerable populations in the United States. In a randomized control trial, the CHW and nurse care team in a primary care setting were evaluated specifically concerning diabetes self-management for the American Samoa population (n=268). The project was successful in significantly lowering HbA1c than usual care. In addition, the CHW was essential in helping the patients keep appointments, identifying barriers to self care, reinforcing medication adherence, and lastly providing support and education (DePue et al., 2013). With the assistance of the CHW, the nurse relayed information about care needs to the primary care provider and conducted targeted group sessions according patient care goals (DePue et al., 2013). The bidirectional communication from individuals in the community to the health care team was facilitated by the CHW and nurse roles.

Most studies that involve nursing and the CHW employ a nurse care manager, a more supervisory role. However, one recent study in 2014 specifically investigated the nurse practitioner (NP) and CHW care team to determine cost effectiveness by studying cardiovascular health disparities (Allen et al., 2014). The team provided evidence based practice interventions, education, face-to-face encounters, and telephone follow ups. There was a significant overall improvement in blood pressure, lipid profiles, and HBA1c in the intervention group (n=261) compared to usual care group (n=264) after one year. The NP and CHW team provides an effective care delivery model for underserved populations and should be considered for use in future care settings.

Community Health Worker and Community Health Team

THE ROLE OF THE COMMUNITY HEALTH WORKER

The community health team (CHT) is a multidisciplinary group of health care professionals that address all medical and non-medical patients needs with the new addition and support of the community health worker (CHW). The Vermont Blue Print for Health (a chronic care improvement initiative since 2008) has supported the Community Health Team (CHT) model of care as a way to address chronic disease through coordinated preventative and primary care services to improve health care outcomes and control health care costs in the state (Department of Vermont Access, 2010). The addition of the CHW to the CHT has shown to have positive benefits for patients in a recent pilot study.

Losby et. al (2015) described the use of the CHT and CHW model in rural Vermont. The St. Johnsbury CHT model is a recent primary care initiative aimed at improving delivery of care to a community with high rates of hypertension, diabetes, and asthma. The CHW is utilized by the CHT as a chronic care health coach to encourage self-care and self-management. They also serve as well as a vital link between community and local State agencies by linking available resources to patient needs. Losby et al. examined a sample of patients (n=210) who utilized the CHW in person or by phone over eight months about topics related to primary care including health insurance, prescriptions drugs, and health education. The CHW subjectively evaluated the patients at each encounter from 0 to 10 (where 0 is a patient in crisis and a 10 represents that a patient is self sufficient in the area). Significant increases in scoring for the topics of health insurance, prescription drugs, and health education were demonstrated (Losby et al, 2015). The initiative highlights the supportive role of the CHW, encouraging self-management of their overall health and well-being.

THE ROLE OF THE COMMUNITY HEALTH WORKER

The CHW enhances the CHT and should be considered as a valuable resource when constructing new ways of delivering care both in rural and urban areas. A recent qualitative case study in Bronx, NY showed a reduction in emergency room visits and hospitalizations after integrating the CHW as part of the patient-centered medical home care team (Findley et al., 2014). The CHW as a member of the care team is an effective method for care delivery to rural and urban populations. In the Visiting Nurse Association, the CHT consists of a nurse, social worker, physical therapist, pharmacist and administrators and will be referred to as the VNA care team for this project.

Community Health Workers and Refugee Populations

The influx of refugees to the United States in recent years has created a new challenge and opportunity to utilize community health workers CHWs to help these individuals' access services in a complicated health care system. CHWs were utilized in a group of Somali women (n=26) conducting cognitive behavior therapy treatment over eight weeks. Differences in pre and post intervention scores were statistically significant in increasing self-reported happiness and decreasing anxiety (Pratt et al., 2015). Similar positive results were identified among Cambodian American refugees. Education was provided by CHWs on cardiovascular disease and higher self rating of health, improved health behaviors, self reported decrease in barriers to care, and improved language skills (Wagner et al., 2015). CHWs have been shown to be effective at providing care, education, and improving the overall well-being of refugee populations.

Community Health Workers and home visits

Information regarding home health agencies utilizing CHWs is absent from the literature, however various projects utilize CHWs through home visiting. The Resources,

THE ROLE OF THE COMMUNITY HEALTH WORKER

Education, and Care in the Home program (REACH-Futures) serviced participants (n=666) through home visits, including monthly visits by a CHW and fewer visits (3) by a nurse for up to one year. The initiative demonstrated success utilizing home visiting with a nurse-CHW team (Barnes-Boyd, Fordham Norr, & Nacion, 2001). CHWs working to improve diabetes care in the American Samoa population conducted visits in the home, workplace, or other convenient locations to help keep or make appointments, reinforce education, problem solve barriers to care, and support self management (DePue et al., 2013). Home visits were a component of an initiative for to improve diabetes care and reduce emergency visits and hospitalizations among African Americans in an urban setting (Gary et al., 2009). CHWs have worked with underserved and at risk populations through home visiting and would be an asset to a home health agency.

Education of the Interprofessional Team regarding CHWs

Findley et al. discussed the need to educate staff members on the CHW model of care and role to help all individuals work effectively as a team. The training led to better integration of the CHW and as a result reduced tensions among CHW and staff members (Findley et al., 2014).

The Resources, Education, and Care (REACH-Futures) once again support the importance of educating team members on CHWs in the Home program. Within Chicago's inner city, a nurse-led team with a community health worker provided education, support, and health care through home visits as an effort to reduce infant mortality (Barnes-Boyd et al., 2001). The initiative followed the World Health Organization (WHO) model of care that emphasizes collaboration between communities and health care professionals (Barnes-Boyd et al., 2001). Early in the implementation of

THE ROLE OF THE COMMUNITY HEALTH WORKER

the program, it became evident the importance of preparing and educating nurses on how to work with CHWs. Some nurses had difficulty appreciating the capabilities and cultural knowledge of the CHWs. At first, nurses were reluctant to delegate responsibilities, and later began setting unrealistic goals for the CHWs. To improve teamwork, discussions were held about establishing relationships, delegation, and effective communication to strengthen the nurse and CHW team. Initial training, regular education, and continual team building for nurses and CHW were crucial to effective team communication and performance (Barnes-Boyd et al., 2001).

Summary

In the literature, minimal information exists on effective strategies and the positive impact of educating team members on how to incorporate and utilize the community health worker (CHW) as a team member specifically in a visiting nurse agency. The project will address the essential need to introduce the role of the CHW, as research supports, to a newly formed team including visiting nurses, physical therapists, social workers, primary care providers and a pharmacist working in a visiting nurse agency.

Chapter Three

Methods

Identification of Need

The newly formed health care team created in collaboration with the Visiting Nurse Association of Chittenden and Grand Isle Counties will welcome the community health worker as a new member. The literature supports education of the health care team on the role and utilization of the CHW to improve integration. To provide a seamless transition with the addition of the CHW, education is essential to effective and coordinated care for the community. The main topics that are important to include are training of CHWs, benefits of using CHWs in chronic care, communication skills, and delegation of appropriate tasks.

Development of Project Material

The project will provide an educational experience for the Visiting Nurse Association and newly formed health care team. An initial assessment of the team member's knowledge will be conducted in relation to the CHWs training and use. The education will be provided by audio presentation. A post test survey of knowledge will be self-administered with an evaluative component. The health team will be able to 1) define the role of the CHW 2) Identify appropriate tasks to delegate 3) describe techniques to facilitate communication 4) demonstrate cultural awareness.

Enhancements or Inhibitors in Implementing the Project Objectives

Enhancements. The education will be provided using a computer program before the integration of the CHW. The module can be assessed from any location at a time that is convenient to each team member. The education is provided with visual and audio to

THE ROLE OF THE COMMUNITY HEALTH WORKER

appeal to a variety of learners. To minimize time spent and maximize attention, the material will be presented within 20-25 minutes. All team members will have continued access to the module as a reference to consult once the CHW is integrated into the health team. Information about participants will not be collected to protect participant's identity and maintain confidentiality.

Inhibitors. Health team participation and completion of the education module is voluntary and within scheduled work hours. It will be explained that the project is being completed for the purpose of a master's project. Since the project is using human subjects, the material must be approved by the Institutional Review Board.

Persons/Situations/Cases Involved

The project is being developed with Dr. Mary Val Palumbo DNP, APRN, Associate Professor of Nursing at the University of Vermont in collaboration with the VNA of Chittenden and Grande Isle Counties. The project is being funded by a RWJF/AARP Future of Nursing State Implementation Program grant. The education module will be accessed by the visiting nurses, physical therapists, social workers, primary care providers, and a pharmacist. The CHWs who will join the care team will be introduced for the first time with in the presentation.

Description and Discussion of the Products of the Project

As mentioned above, the project is a visual and audio presentation to be accessed by all members of the health care team. The topics include the role of the CHW, significant contributions to chronic care, importance of communication and proper delegation, and team building strategies. The participants will start by taking a pre-test to

THE ROLE OF THE COMMUNITY HEALTH WORKER

evaluate prior knowledge before completing the education module. After 15-20 slides, introducing the CHW as a new member a short post-test will be used to evaluate learning.

Plan for evaluation of outcome of project

Comparison of pre and post tests will provide information on initial familiarity and knowledge gained after reviewing the education module. In addition to assessing knowledge gained, a Likert scale 1-5 with 5 being strongly agree to 1 being strongly disagree, will be used to evaluate the contents of the module.

Chapter Four

Evaluation and Discussion

Nineteen participants completed the pre-test and twenty-two participants completed the post test portion of the project. The participants were composed of current CHW students and members of the community health team. The pre-test contained a series of seven questions. The posttest repeated the previous seven questions with a change to one of the questions answer options. There was also an evaluative component added to the post-test.

Results

All of the questions showed improvement from the pretest to the post test except for the first question. The first question addressed all the contributions CHWs can provide and the majority of participants chose the correct answer from pre-test (n=95%) to post test (n=91%). It was clear that the majority of participants were aware of the credentialing of CHWs in Vermont from the pre test (84%) to the post test (86%). In regards to the integration of the CHWs, the question revealed the lowest percentage of participants answering correctly for both the pre test (21%) and post test (36%). The largest improvement was shown in question four that asked participants to select a false statement regarding the role of CHWs in context of the team. Only 57% of participants answered correctly during the pre-test. After completing the module, 86% of participants were able to identify that that the role was not solely created to provide direct patient care, rather they act as a liaison playing many different roles that are based on the needs of the team and the patient. When asked about the CHW contributions to the team,

THE ROLE OF THE COMMUNITY HEALTH WORKER

answers were distributed between three different selections on the pretest (79%), however post-test scores revealed the highest percentage of participants selecting the correct answer (95%). The understanding that the CHWs primary role is communicating the needs of the individual, not to provide direct patient care and not expected to work without guidance from the team. The sixth question discussed the growing interest in CHWs and yielded low percentage of correct responses for both the pre (n=47%) and post (n=55%) test. There was improvement from pre-and post test, however individual answers were dispersed across all five choices and perhaps this was due to limited comprehension of what was being asked. The final question was specific to integrating the CHW onto the team and only 32% selected the correct response during the pre-test. There was marked improvement in the post test (50%). This question was important to highlight communication as an essential factor when integrating the CHW and the other selections did not pertain to the CHW becoming part of the team.

Figure 1

Question #	Pretest % Correct	Post Test % Correct
1	94.7%	90.9 %
2	84.2%	86.4%
3	21.1%	36.4%
4	57.9%	86.4%
5	78.9%	95.5%
6	47.4%	54.5%
7	31.6%	50.0%

Evaluation of the module consisted of five questions on a five point Likert-type scale ranging from strongly disagree to strongly agree. Seventeen of the twenty-two participants completed the evaluative component. Majority of participants strongly agreed (n=9) or agreed (n=6) that the session was interesting and easy to understand. When addressing content of the module, participants agreed (n=11) that the module content was appropriate to their role as a member of the health team. In addressing whether the module increased understanding, fifteen out of seventeen participants agreed and strongly agreed. Information from the module is intended to be helpful and applicable for all team members and CHW's in practice. Although the majority of participants did feel the knowledge is applicable, one participant disagreed. The module was nineteen minutes in length and more than half of the participants (n=9) agreed the length was appropriate. Overall, the module was positively received by all participants.

Evaluation

CHWs have been used as a liaison between the community and the health care system in varying capacities in the United States. The CHW role is uniquely flexible and tailored to the specific needs of the community, which is both beneficial and challenging in a team setting. Health teams must allow and support the evolution of the CHW role (Findley et al., 2014). More importantly, a transformation of the health team with the new addition of the CHW is best facilitated by understanding of the value of the CHW and complimentary role in achieving the team's goals (Doherty & Coetzee, 2005). The addition of the CHW requires a transformation of how the health team interacts and functions (Doherty & Coetzee, 2005; Findley et al., 2014). To facilitate the team

THE ROLE OF THE COMMUNITY HEALTH WORKER

transformation, education may provide a possible solution to integrate the CHW and ultimately enhance success of the team providing care (Findley et al., 2014).

The educational module was provided to all members of the VNA care team and the newly trained CHW's. The purpose of the project was to educate the newly formed team at the VNA about the new role of the CHW. The knowledge gained by participating in the educational offering is reflected by pre and post test score improvement in six out of seven questions.

The first objective was to highlight the CHWs value as a contributor to improved access, cost effective care, and better patient outcomes. Ninety percent of participants were able to identify all of these key contributions. To facilitate the acceptance and integration of the CHW as a full team member, all individuals must understand the role and value of the CHW contribution to the team goals and patient centered care (Doherty & Coetzee, 2005).

Defining the CHW role was an important second objective. The unique flexibility of the role allows the CHW to adapt to the needs of the community, however uncertainty surrounding the role can cause conflict (Doherty & Coetzee, 2005). Eighty-six percent were able to identify that the role is not concrete and needs to be flexible.

The third objective addressed the need for effective communication between the CHW and the care team. Clear, open communication is essential when incorporating the CHW as a full team member. Findley et al described facilitating integration by providing opportunities for communication in weekly team meetings and regular feedback of CHW contributions (Findley et al., 2014). Although there was improvement from pre and post tests, only half of the participants selected communication as essential to the integration

of the CHW to the health care team. This may be explained by the difficulty to select the best answer out of the other reasonable choices.

The fourth objective was to understand the CHW duties as a working member of the team. The CHW role is ever evolving, however the greatest distinction is that the CHWs is the role as a liaison, gathering insight and information to take back to the team. After the educational module, ninety-five percent of participants were able to identify the main duty of gathering information and communicating patient needs to the team. The CHWs have helped the team engage patients from differing cultural backgrounds who were perhaps not well served before. Moreover, the addition of the CHW to the health team has truly made the team more patient centered (Findley et al., 2014). The achievement of this project is positively reflected in the improved results and evaluation of the module.

Implications

Practice. Interprofessional teams are being utilized to address health, social, environmental, and economic factors that contribute to an individual's overall well-being. Effective communication across disciplines is essential for our pilot program and also useful in general practice. As APRNs encounter patients with complicated issues they can ask for assistance from members of the team and work collectively to find solutions. The APRN can use the knowledge and understanding gained about the CHW roles, duties, and expectations when they encounter these team members in practice. In addition, the APRN has come to understand the CHW as a liaison and vital team member in reducing health disparities among underserved populations and improving patient outcomes.

THE ROLE OF THE COMMUNITY HEALTH WORKER

The CHW has the potential to improve health care utilization, health behaviors, and to a lesser extent health outcomes in underserved minority populations (Verhagen et al., 2014). This pilot program, however, is different from previous research as the first to utilize the CHW within the Visiting Nurse Association (VNA). Home visits by CHWs have been shown effective when applied to infant health promotion and diabetes management (Barnes-Boyd et al., 2001; DePue et al., 2013; Gary et al., 2009). However, this pilot program will help to determine the CHWs effects when specifically applied to the home care setting.

Education. Education is necessary when introducing a new member to the team. Findley et al (2014) explained that through education and understanding of the role, better integration of the CHW onto the team is achieved (Findley et al., 2014). Doherty and Coetzee described that the lack of understanding by nurses of the CHW role influenced the relationships (Doherty & Coetzee, 2005). The pilot program relies on the strong working relationships between team members and the CHW to provide quality care to the New American population. The success of the program relies on the understanding of the CHW role by all team members.

Research. The interest in the CHW role and utilization within health care system is growing rapidly and this pilot program aims to expand their use to the home care setting through the Visiting Nurse Association of Chittenden County. No previous research addresses the use of the CHW within a home care agency. This pilot program will help determine if the CHW has a meaningful role in this particular health care setting. Replication of this pilot program in other local VNA agencies is necessary to determine the true significance of the CHW contribution in home care. The CHW role is important

in the utilization of health care and has been measured by emergency room visits and hospitalizations (Findley et al., 2014). Tracking similar utilization by patients seen by CHWs within the VNA agency would provide valuable information and congruent with the VNA who strives to provide care and services within the home to prevent hospitalizations.

Furthermore, the patient population for this pilot program specifically targets New Americans. There is limited research on the utilization of CHWs for refugee populations. Within Vermont, there has been an influx of refugees from a variety of countries including Vietnam, Sudan, Somalia, and Nepal. To properly provide culturally competent care and help the New Americans navigate the health care system, CHWs are proposed and promising solution. Previous studies involving CHWs used patient self-reported surveys to determine the efficacy of the CHW intervention (Losby et al., 2015; Wagner et al., 2015). Surveys may include subjective ratings for self management, health behaviors, and overall well being that are collected before and after the CHW intervention.

Limitations

One of the limitations of this study was all participants needed computer access. In order to view the educational module, complete pre and post test surveys, and evaluate the content, a computer was required. In addition, the community health team at the Visiting Nurse Association had difficulty assessing the website due to security preferences. This problem was remedied by adding the module to an Internet server that could be accessed from their work location. In addition, the CHWs did not have consistent access to computers. To accommodate the CHW participants, surveys were

printed and completed in the classroom setting. The module was also presented to all CHWs during class to remove this barrier.

In working with this group of CHWs, some participants had limited English language proficiency. All of the content and evaluations were presented in English. Presenting the module and allowing class time to complete surveys, allowed the group of CHWs to ask clarifying questions. However, this potential barrier of limited language proficiency needs to be considered as a possible limitation since comprehension of the module and questions on the written surveys were crucial to the results and evaluation of education.

Summary

The educational module was successful at introducing the role of the CHW to the staff at the visiting nurse agency and the New American CHWs. Results from pre and post test surveys showed improvement in scores, reflecting knowledge gained. The interprofessional team needs to learn how to include the CHW onto the care team and training has been found to facilitate integration (Findley et al, 2014). The relationship between the CHWs and the health team has been described as a process (Doherty & Coetzee, 2005). First, uncertainty surrounding the role of the CHWs and the lack of understanding around the CHW training process has been shown to impede proper utilization and acknowledgement of the role (Doherty & Coetzee, 2005). The educational module introduced the CHW role and described the training process to help with understanding and facilitate integration of the role onto the VNA care team. In time and with utilization of the role, conflicts may arise. However, with a better understanding of the role and improved appreciation of the CHW knowledge base, the number conflicts

THE ROLE OF THE COMMUNITY HEALTH WORKER

can be reduced (Doherty & Coetzee, 2005). Many nurses realized the value of the CHW and how the role compliments the team's goals, however few regarded this new team member as a colleague. The educational module introduced this new member to clarify the role, provide evidence for utility of the role, and facilitate the appreciation for the CHW value as a full team member to address issues that could compromise the success of the newly formed VNA care team. Findley et al credits the success of the CHW care model in Bronx, NY to the commitment to integrating the CHW and transforming the health care team over time to become more patient focused (Findley et al, 2014). Current knowledge is limited on the interventions used by health teams to effectively to integrate CHWs as team members. This educational module serves as the first structured and detailed program to introduce the role to facilitate integration of the CHW onto the care team at a visiting nurse agency.

This project has demonstrated that the APRN can have an active role as a member of the VNA care team and facilitating the integration of the CHW onto the team. The success of the VNA care team is dependent on the understanding of the CHW role, generating referrals for the CHWs, and recognizing the value of the CHW for the team's mutual goal of providing patient centered care.

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Appendix A: Pre-test and Post-test

Please take 5 minutes to complete the following questions without the use of resources. In order to evaluate pre and post test scores, we ask for a confidential identifier. Please state your favorite pet's name or favorite flower in the space below.

1. Community Health Workers (CHWs) can:
 - a. Improve health outcomes
 - b. Increase access to care
 - c. Strengthen health care teams
 - d. Reduce health care cost
 - e. All of the above

2. Community Health Workers in Vermont:
 - a. Require licensure by the state
 - b. Must have an Associate's degree
 - c. Receives documentation of completion of a training program
 - d. Must be cross-trained as a patient care assistant

3. Integration of the CHW into a health team can be difficult because they have:
 - a. No prior employment history
 - b. Limited English language proficiency
 - c. No previous involvement with the U.S. health care system
 - d. Roles that overlap with other team members
 - e. All of the above

4. Which of the following statements is false regarding the CHW role:
 - a. The CHW role was created solely to provide direct patient care in the home
 - b. The CHW completes tasks delegated by the health team
 - c. The CHW often plays multiple different roles
 - d. The CHW provides a liaison between community and health care team
 - e. None of the above

5. The CHW will contribute to the health team by:
 - a. Checking blood pressure and blood glucose on patients
 - b. Communicating needs of the individual to the health care team
 - c. Providing hands-on patient care when the visiting nurse is unavailable
 - d. Independently creating culturally competent interventions
 - e. None of the above

6. There is a growing interest in using CHW's because:
 - a. They create a solution for providing acute care services in the home
 - b. The Affordable Care Act makes their use on health teams mandatory in all states

THE ROLE OF THE COMMUNITY HEALTH WORKER

- c. The CHW will replace more expensive patient care assistants
 - d. None of the above
 - e. All of the Above
7. Which of the following is essential for the integration of the CHW to the health care team:
- a. Clear Communication
 - b. Broad Education
 - c. Formal Job training
 - d. Strong clinical knowledge base
 - e. All of the above

Appendix B: Evaluation of CHW Education Module

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The session was interesting and easy to understand	1	2	3	4	5
The content was appropriate to my needs as a member of the health team	1	2	3	4	5
The session increased my understanding of the CHW role	1	2	3	4	5
Information provided can be applied to practice	1	2	3	4	5
Length of the module was appropriate	1	2	3	4	5

Further comments:



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Committees on Human Subjects
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and the UVM Medical Center

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Certification

Not Research Determination

TO: Kameron Escajeda
FROM: Sarah Wright, Research Review Analyst
DATE OF CERTIFICATION: 14-Apr-2016
SUBJECT: Executive CHRBSS: 16-560
The Role of the Community Health Worker: An Educational Offering

A handwritten signature in black ink, appearing to read "Sarah Wright".

The IRB has determined that this project does not require IRB review because it does not meet the definition of a "research" activity under the regulatory definition adopted by UVM. According to 45 CFR 46.102(d), the definition of "research" is "a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge."

Projects that are not a systematic study or are not intended to contribute to generalizable knowledge, e.g. quality assurance, quality improvement, program evaluation, or public health practice, do not require IRB review.

Thank you for contacting the Committee to make this determination.

cc: Mary Val Palumbo