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Providing Preventive Health Education and Developing a Referral Policy and Toolkit to Increase Access to Primary Care for Individuals with Mental Illness

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PROVIDING PREVENTIVE HEALTH EDUCATION AND DEVELOPING A

REFERRAL POLICY AND TOOLKIT TO INCREASE ACCESS TO PRIMARY

CARE FOR INDIVIDUALS WITH MENTAL ILLNESS

by

Phaedra McLin and Stephanie Myers

A Doctoral Project
Submitted to the Graduate School,
the College of Nursing and Health Professions
and the School of Leadership and Advanced Nursing Practice
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Nursing Practice

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ABSTRACT

Treatment rates in primary care for the mental health population is traditionally low. Individuals with mental illnesses were at a higher risk for the development of chronic health problems (Ross et al., 2015). Substance Abuse and Mental Health Services Administration (SAMHSA) indicated that many people with serious mental illness die from preventable diseases. People with serious mental illness also have a higher mortality rate than those in the general population (SAMHSA, 2017b).

The purpose of this Doctor of Nursing Practice (DNP) project was to determine if educational training regarding specific chronic disease conditions influenced the attitude and knowledge of the Community Health Workers (CHWs) in the day treatment program. The project was also to determine if the development and utilization of the referral policy and toolkit would assist CHWs in referring clients to primary care. There were a total of eight participants. A pretest and survey were administered to the CHW followed by an educational presentation. A posttest and survey were administered. The means of the post-test and post surveys increased. The pre/posttest and survey results supported the incorporation of education regarding the importance of preventive health and wellness to the CHW. The Director of Adult Services of the mental health facility assembled a focus group of mental health providers. The referral policy and toolkit was introduced to the CHWs and the focus group. Following the introduction of the referral policy and toolkit, the focus group completed a questionnaire. The purpose of the questionnaire was to determine the ease of use and the overall usefulness of the toolkit. Overall the staff thought the toolkit was useful in assisting with referrals.

ACKNOWLEDGMENTS

DEDICATION

Special recognition to our husbands, Flenard McLin and Ricky Myers for their encouragement, prayers, and understanding during this journey. We also dedicate this work to our families and friends who have continuously shown support for our efforts. We give the highest praise to God for allowing us to complete the Doctor of Nursing Practice degree.

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LIST OF ABBREVIATIONS

AACN   American Association of Colleges of Nursing

AHRQ   Agency for Health Research and Quality

APA   American Psychological Associations

B2BHW   Bridges to Better Health and Wellness

CDC   Centers for Disease Control and Prevention

CHW   Community Health Worker

CMHC   Community Mental Health Centers

DNP   Doctor of Nursing Practice

EHR   Electronic Health Record

NIMH   National Institute of Mental Health

PHASe   Physical Health Assessment Scale

RAISE   Recovery After Initial Schizophrenia Episode

RAND   Research and Development

SAMHSA Substance   Abuse and Mental Health Services Administration

CHAPTER I - INTRODUCTION

In the United States, people with mental illness die 25 to 30 years sooner than people without mental illness. A large percentage of these people are dying from preventable illnesses (Olfson, Gerhard, Huang, Crystal, & Stroup, 2015). People with serious mental illness can be involuntarily committed, meaning they have no choice on whether they will seek treatment for their mental illness. Occasionally, people insist a family member seek treatment due to behavioral problems. People with serious mental illness are more likely to access mental health care treatment than primary care services. If people with mental illnesses understood the importance of their physical health needs, they may be more prone to seek primary care services (Colton & Manderscheid, 2006; Substance Abuse and Mental Health Services Administration [SAMSHA], 2016).

Integrating the importance of physical health care into the mental health facility is an integral factor in decreasing the mortality rate of this client population. "Good mental health often contributes to good physical health" (SAMSHA, n.d., para. 6). Increasing client education and awareness may influence the mental health client to seek out primary care for treatment and preventive screenings. People with serious mental illness may have difficulty trusting others. If the mentally ill client receives health information from workers with whom they have a rapport, their behavior toward seeking primary care may be positively influenced. The positive influence may increase the likelihood that they would seek medical care at least for preventive screenings and to ensure the absence of common chronic diseases (Cabassa et al., 2018).

Integrated care is important to the client as it allows providers involved with caring for the client to be aware of the different health problems as well as medications

and treatments relevant to the client's care. Clients with serious mental health problems are also more likely to have some physical health problems (Druss et al., 2010). The mortality of individuals with mental illness compared to those without mental illnesses is increased by approximately 25 years (Druss et al., 2010). Frequent monitoring of health risk behaviors and client access to care is vital to the implementation of intervention programs such as integrated health care to combat health issues (Pickens, Pierannunzi, Garvin, & Town, 2018).

Background

People with serious mental illness do not live as long as the general population. A study conducted in 2006, indicated that many people with serious mental illness died from preventable diseases. These diseases included diabetes, heart disease, cancer, and other infectious diseases (SAMHSA, 2017b, para. 2). Part of the reason for early death in this client population was due to not accessing primary care for preventive health care services, screenings, and chronic disease diagnosis and treatment (Xiong et al., 2015). Incorporating client education about the importance of preventive health and wellness into the group setting in the mental health facility may have encouraged the client with serious mental illness to follow up with primary care for health screenings.

Treatment rates in primary care for the mental health population is traditionally low. Identifying barriers to accessing health care is important (Ross et al., 2015). Client factors including socioeconomics and psychological issues should be considered when relying on clients to access health care. Several barriers could inhibit this client population from accessing care that is not usually considered in the general population. If the mental health and physical health needs are both not addressed, individuals cannot

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function at their highest level of capacity. They are also at a higher risk for the development of chronic health problems (Ross et al., 2015).

Care coordination is important because it helps with access to health care by placing someone to be a mediator and advocate of care for the client. Care coordination has been a great asset to both the client and provider as the care coordinator/manager helps the clients manage appointments and medications. The care coordinator also keeps up with labs and referral information for the providers (Druss et al., 2010). The clients are more likely to keep appointments and follow up with care if a reminder system is in place in which the care coordinator functioned in that role.

Significance

In order for a client to have the highest quality of life, all dimensions of the individual should be addressed. Incorporating information about preventive care in the mental health care setting may help increase the number of mental health clients who access primary care. Identifying and addressing all aspects of the client will help to ensure that total wellness is achieved in the client with serious mental illness (Olfson et al., 2015).

Serious mental illness is defined as "a mental, behavioral, or emotional disorder resulting in serious functional impairment, which substantially interfered with or limited one or more major life activities" (National Institute of Mental Health [NIMH], 2017, para. 4). In 2016, 10.4 million Americans, ages eighteen and older, were living with serious mental illness (NIMH, 2017, para. 7). SAMHSA funded a study in 2006, which indicated 95.4% of people with serious mental illness died from cardiovascular disease, cancer, or pulmonary disease. Other problems identified that contributed to this client

population's high mortality rate have been identified, including limited access to primary care (SAMHSA, 2017b).

Wellness

According to SAMSHA, wellness is not the absence of disease but "being in good mental and physical health" (SAMHSA n.d., para. 2). Mental and physical health affects one another; if a person is going to experience wellness, both these avenues should be addressed. Even when chronic illness or diseases are present, an individual can still experience wellness (SAMHSA, n.d.).

SAMHSA encourages the individual to think of wellness as "being healthy in many dimensions of life" (SAMHSA, 2016, p. 3). SAMHSA has identified eight dimensions of wellness. They are emotional, environmental, financial, intellectual, occupational, physical, social, and spiritual. All these dimensions should be incorporated into an individual's life if wellness is going to be achieved (SAMHSA, 2017a, para. 4). The focus of this clinical project was the physical dimension of wellness in the person with serious mental illness.

Among the strategies identified by SAMHSA to promote wellness are health education and health screening. The mental health client is at an increased risk for metabolic syndrome due to the antipsychotic medications used to treat their illnesses. Educating these clients on the importance of proper nutrition, physical activity, weight management, diabetes screening, and diagnosis, and wellness informed care is important (SAMHSA, 2016). Incorporating this information in the group setting ensures clients with serious mental illness are being educated on the importance of wellness and preventive health care measures.

Preventive Health

People with serious mental illness have shorter life spans than the general population. The statistics may be affected by the increased rate of suicide in individuals with serious mental illness (Morden, Mistler, Weeks, & Bartels, 2009). Most deaths in this population are from chronic diseases that could have been prevented, particularly cardiovascular disease (Morden et al., 2009). People with serious mental illness also have been found to have a higher risk of developing diabetes, stroke, cancer, and respiratory illnesses (Canadian Mental Health Association, n.d.). Screening and earlier diagnosis of these chronic illnesses in the person with serious mental illness may contribute to better client outcomes.

Seriously mentally ill clients are also likely to experience obesity, metabolic syndrome, hepatitis, osteoporosis, sexual dysfunction, and oral health problems. Individuals with mental illness are less likely to follow up for medical screenings and treatments of disease (De Hert et al., 2011a). Modifiable risk factors for chronic diseases are "poor eating habits, lack of physical activity, tobacco use, excessive alcohol use, environmental factors, and socioeconomic status" (Centers for Disease Control [CDC], 2012, see Table 1). Training the staff that works with these clients is essential if mental and physical health integration is to occur successfully (Kristiansen et al., 2015).

Community Health Worker

A community health worker (CHW) is someone who works closely with an underserved community population and is mindful of the different cultures and beliefs in the community. CHWs fill the gap between the community and the health care system. They have an understanding of the community population for which they work. The

CHWs function independently and as team members with other health care professionals to promote health in the community (CDC, 2017a, 2017b). CHWs serve in many different capacities. Some roles include screening and health education, outreach and information agents, community organizers, and health care navigators for the client. CHWs have proven effective in helping to improve health care in the community setting (CDC, 2016).

CHWs often receive on the job training and may not have a professional title. They may have had the training or received their education in a field unrelated to the work they do in the community. The main goals for the CHW are to help increase awareness in the community about health needs and reduce risks of chronic illness in the community (CDC, 2017a, 2017b).

The education and training of the CHW is important. Some of the people who work in the mental health community may not have a formal education or may not have a health care background. A division of the CDC, Chronic Disease Prevention and Health Promotion, has developed a plain text manual that can be used to teach the CHW regarding health care risk and diseases. The manual contains important information that the CHW can easily understand and share with the community and clients (CDC, 2015).

Integrated Health Care

Integrated health care is a system that addresses the treatment aspects of both physical and mental health care simultaneously. Integrated health care systems recognize the importance of treating both mental and physical health problems with equal importance. Mental and physical illnesses are clearly related. Mental illnesses such as depression have had negative effects on physical illnesses such as diabetes, cancer,

human immunodeficiency virus, and heart disease. (NIMH, 2018). SAMSHA reported that people with mental disorders tend to die earlier than those without mental illness (SAMSHA, 2017b). The reason for the premature deaths in those individuals with mental health illnesses was also contributed to their lack of frequent visits with primary care. Three of the main goals of integrated health care are to help providers monitor the clients' health issues, to coordinate treatments to prevent interactions and harm to the client, and to decrease the risk of error.

Care Coordination

According to the Agency for Health care Research and Quality (AHRQ), care coordination is designed to improve care delivery outcomes for clients, providers, and payers (AHRQ, 2014). The healthcare system has also improved in areas such as effectiveness, efficiency, and safety with implementing care coordination. With the increasing interest in implementing care coordination, Community Mental Health Centers (CMHC) have a heightened awareness of the importance of effective health care delivery (Druss et al., 2010).

Access to Primary Health Care

The initial symptoms of mental illness and/or substance abuse are often identified and treated in primary care (Ross et al., 2015). However, when physical health issues are identified in the mental health care setting, the client is usually instructed to follow up with a primary care provider. Many mental health clients experience barriers to health care that include impaired judgment, socioeconomic difficulties, and lack of transportation. The lack of cognitive ability to demonstrate self-advocacy also played a significant role in accessing health care. Quality care deficits can contribute to severe

mental disorders. The prevention and management of diseases rely on the client's ability to access health care (Vanderlip, Raney, & Druss, 2016).

Needs Assessment

A meeting was held with the Director of Adult Services and the grant writer in an outpatient community mental health care facility in a rural community in southern Mississippi. Clients with serious mental illness come to this facility to attend a day treatment program. The clients come to the program five days per week for six hours per day. At the day treatment program, the clients engage in different groups and activities. CHW, employed by the mental health facility, supervise the clients.

Several of these clients have not seen a primary care provider in the past six months. Many of them do not have a designated primary care provider and have not been in for a wellness visit or preventive health screenings. Some clients are not aware of the importance of regular follow up with a primary care provider. There is also no referral policy or system for referring the client for physical health care.

The CHW received on the job training when they were hired, but do not receive continuous training updates as often as the company would like. Providing more education on client needs and deficits could improve the care the client is receiving. Health education could also be relayed to the clients by the CHW, to ensure they are aware of the need for physical health care and frequent follow-up.

Synthesis of Evidence

A search of the literature was conducted using the following PICO questions as a guide.

1. In an outpatient mental health facility, how does providing a physical health education training program compared to not providing a physical health education program influence the knowledge of physical health needs and attitudes of the community health care worker in a day treatment program?

2. In an outpatient mental health facility, does the development and utilization of a referral policy and referral toolkit compared to no referral policy and toolkit assist the community health care worker in referring mental health clients to primary care facilities?

The search was conducted using the following as key terms: wellness and serious mental illness, physical health, community health worker, integrated care, access to care, and mental health referral tool. A search was done using EBSCO host searching the databases: PsycINFO, PsycARTICLES, MEDLINE, and CINAHL. The search was limited to articles with access to full text. A total of 113 articles were found. Articles older than 2006 were excluded. The aim of this review of the literature was to identify the interventions that have been successful in promoting wellness, disease prevention, and preventive health activities in the client with serious mental illness. The literature review also revealed interventions to integrate health care and increase access to primary care services.

Disease Prevention and Serious Mental Illness

The person living with serious mental illness does not live as long compared to persons without mental illness (Knight, Bolton, & Kopeski, 2017; Olfson et al., 2015). The high mortality rate in the mentally ill client may be related to poor health habits, poor nutrition, lack of physical exercise, and abuse of tobacco and alcohol. In the mental health client taking antipsychotics, the medication that controls the mental health symptoms, can also cause weight gain, increase in blood glucose, and cholesterol. The medications increase the individual's risk for metabolic syndrome and developing chronic illness (Druss et al., 2018; Padmavati, 2016).

Evidence supports that having a medical nurse in the mental health facility would help to increase the mental health client's physical wellbeing (Happell, Gaskin, & Stanton, 2016). The medical nurse would help to ensure the physical health needs of the mental health clients were met. Having a physical nurse consultant was recommended to bridge the physical and mental health care gap (Happell et al., 2016).

Clients with serious mental illness tend to underuse primary care services and overuse emergency services. People with serious mental illness are less likely to follow up with primary care after they have been seen in the emergency room. The lack of follow up may be due to multiple reasons but the end result is that seriously mentally ill clients were not receiving standard treatment for general medical problems. The lack of treatment was contributed to the poor health outcomes of this client population. Druss and colleagues (2018) reported that if the community as a whole served as a support system for the mentally ill client, the client may have been more likely to follow up with primary care services (Druss et al., 2018).

Wynaden and colleagues (2016) studied the attitude of the mental health nurse

regarding providing physical health care to mentally ill clients. The study supported that

the nurses had mixed feelings about their responsibility for the mental health client's

physical needs. Some mental health nurses did not place value in providing health

promotion measures to the client due to the fact that they believed the client would not be

compliant with the interventions. The mental health nurse should realize the importance

of serving as a leader. The nurses should also exhibit positive attitudes toward health

promotion so that mental health support workers and clients will understand the value of

physical health care (Wynaden et al., 2016).

On an inpatient mental health unit, the knowledge and confidence of the mental

health workers for providing physical health monitoring and education to the clients was

observed. A training course was provided to the unit employees. The employees

consisted of mental health nurses and mental health support workers. The Physical Health

Assessment Scale (PHASe) was used at the launch of the training program and then again

at the end of the course. At the end of the training course, the workers agreed that they

had a role in the physical health care needs of the mental health client but did not have

the confidence to fill this role. Evidence supports that training the mental health staff,

increasing knowledge, and taking advantage of health promotion opportunities, was

important to the physical care needs of the mental health client (Haddad, Llewellyn-

Jones, Yarnold, & Simpson, 2016).

Knight, Bolton, and Kopeski (2017) examined the attitudes, confidence, and

barriers of providing physical health care to persons with serious mental illness, among

mental health nurses. Knight et al. (2017) also wanted to determine if these factors

affected the routine delivery of physical health care needs to the mentally ill client. The authors noted the attitude of the nurses were positive and many of them felt confident in providing for the physical care needs for the mental health client. The nurses also reported they did routinely include physical care when working with the mental health client. The study provided evidence that mental health nurses were in an excellent position to promote the physical health care needs of the mentally ill client (Knight et al., 2017).

Wellness and Serious Mental Illness

Integrating wellness education into the mental health client's treatment plan is a way to improve health care outcomes for this population. A program was developed and initiated to include in the group setting of the mental health consumer. The program provided the mental health client with education, in an effort to increase knowledge of the importance of wellness. The program's objective was to see if there would be a change in the attitude and health behaviors of the mental health client (Vreeland, Minsky, Gara, & Toto, 2010).

The program was offered on a voluntary basis and indicated an increase in knowledge and a change in the attitude and intentions of the mental health client. The consumer reported intentions to improve physical health activities and make healthier lifestyle choices (Vreeland et al., 2010). A wellness program implemented to promote weight loss in the client with serious mental illness indicated clients had an increase in knowledge toward healthier lifestyle behaviors after participating in the wellness activities. The intervention focused on nutrition and exercise and was delivered by an occupational therapist and graduate students. The participants had a decrease in weight

and an increase in knowledge about nutrition and exercise (Brown et al., 2015). Brown et al. (2015) supported the idea of including wellness interventions in the community mental health setting to promote health in this population.

Interventions to decrease risk factors associated with metabolic syndrome were implemented. Wellness coaching, exercise and diet counseling, and health literacy education were provided to clients with serious mental illness. Allied health professionals and students performed the interventions for the study. There was a significant reduction in the risk factors that contributed to the development of metabolic syndrome in the study's participants. The group also reported eagerness to make healthier lifestyle choices. Promoting wellness activities in the client with serious mental illness does have a positive effect on the client's lifestyle choices (Gill, Zechner, Anderson, Swarbrick, & Murphy, 2016).

An effort was made to increase access to care for Hispanic clients with serious mental illness. A health care manager was provided to assist the clients with improving their physical health by helping them to access primary care services. The healthcare manager's job was to navigate and coordinate the health care system so that the mental health client received access to primary care. The healthcare manager served as a bridge to primary care services (Cabassa et al., 2018).

The clients who participated in the *Bridges to Better Health and Wellness (B2BHW)* program had high satisfaction levels (Cabassa et al., 2018, p. 164). The program offered improvements in client self-efficacy for self-care and an increase in accessing primary care for preventive measures. The study was relevant because people

with mental illness usually do not access primary care for preventive services. The number was even greater in the Hispanic client population (Cabassa et al., 2018).

Mouko and Sullivan (2017) reported that people with serious mental illness faced difficulties that limited their access to primary care. An intervention was developed after it was noted that many of the mental health clients in a mental health program had not had a complete physical assessment. The aim of the intervention was to increase the number of clients who had their physical health assessed. The program consisted of four phases (Mouko & Sullivan, 2017).

The phases of the program involved increasing education and awareness to have physical assessments completed. The program also offered access to mobile physical health clinics. Other components of the program included care coordinators sending letters to the clients encouraging them to get physical examinations. Another part of the program consisted of the care coordinators sending letters to primary care providers regarding the mental health clients' need for physical health evaluations. The findings of this study supported an increased awareness in the mental health workers regarding the need for physical health checks for the mentally ill clients (Mouko & Sullivan, 2017).

The interventions also prompted the mental health staff to encourage their clients to seek primary care services. The study supported the idea that increasing education contributed to the improvement of physical health, but education alone was not enough. A multitude of interventions was needed to increase the physical health of the mentally ill client. The interventions discussed here provide evidence that the attitude and confidence of the mental health worker are important. When people who work with mentally ill clients are able to understand the importance of physical health, they will be more

inclined to educate their clients on physical health needs. Evidence supports teaching the

mentally ill client in the mental health setting about physical health needs may encourage

access to primary care. If the physical health needs of the mentally ill are treated it may

lead to fewer premature deaths in this client population (Mouko & Sullivan, 2017; Olfson

et al., 2015).

Community Health Worker

      The CHW is a vital asset to the welfare of the community. CHWs can function in

a variety of roles. A synthesis of evidence revealed various roles of the CHW. The CHW

may serve in any of the following capacities: "care coordination, health coaching, social

support, health assessment, resource linking, case management, medication management,

remote care, follow-up, administration, health education, and literacy support" (Hartzler,

Tuzzio, Hsu, & Wagner, 2018, para. 1). These roles were categorized into three areas

"clinical services," "community resource connection," and "health education and

coaching." (Hartzler et al., 2018, p. 2).

      A workshop was designed to instruct community health care workers about the

risk factors associated with cardiovascular disease. The aim of the program was to

provide education to the CHWs, so they could be better equipped to teach the

community. CHWs are often in contact with people who are not routinely seen in medical

care. The CHWs are in optimal positions to help disperse vital information to the

community (Boutin-Foster, George, Samuel, Fraser-White, & Brown, 2008).

      The workshop supported the importance of developing educational training for

CHWs. Incorporating an open discussion at the end of the program was beneficial and

allowed the participants to verbalize perceived barriers. The program was designed to

better prepare the CHW to educate the community in which they serve (Boutin-Foster et al., 2008).

A Community Health Worker Training Resource on Heart Disease and Stroke is a resource manual, created by a division of the CDC, that may be used when educating CHWs (CDC, 2015). The guide was used in a project to educate CHWs who worked on an Indian reservation. The study provided evidence that the manual was a good curriculum for meeting the educational needs of the CHW. The resource provided pretest and posttest that can be used during the training. The manual also offered other resources that could be given to the client (Policicchio & Dontje, 2017).

Using this resource helped to increase the knowledge of the CHWs. Public health nurses should be more active in the education of CHWs to help ensure that CHWs are properly educated. These workers are vital to increasing the wellbeing of the community. The CHWs should be sufficiently educated to maximize their usefulness in health promotion (Policicchio & Dontje, 2017).

Integrated Health Care

Many studies have shown that individuals with mental health illnesses have an increased risk of dying younger than those without mental illnesses (Knight et al., 2017; Olfson et al., 2015). Premature deaths were often contributed to preventable health conditions. Integration of primary and behavioral health care improved the overall health of those with mental health addictions and disorders. There were even incentives offered such as the Affordable Care Act, for those that implemented the integration of services for primary and behavioral health care (SAMSHA, 2012).

Weaver and Lapidos (2018) reported that it had been difficult for the mental health system to accurately meet the public's needs. The authors also noted that the system had high employee turnovers and staff shortages (Weaver & Lapidos, 2018). Staff shortages resulted in the development of frameworks for integrative care. There are several different frameworks that are still being developed as well as being revised. The different frameworks were developed to meet the needs of different system settings. Some integrated care services provided mental and physical health care within the same buildings while some are in different buildings and locations (Weaver & Lapidos, 2018).

The Research and Development (RAND) Corporation completed a study to evaluate the successfulness of integration services. The evaluation included 56 primary and behavioral health care integration programs. The examination consisted of the use of web-based surveys by providers, physical health consumer screenings, and visiting sites. The aim of the evaluations was to determine: (1) the effect that the integration of mental and behavioral health services had on access to care, (2) if health outcomes were improved because of integrated care services, and (3) what specific things contributed to access to care (Scharf et al., 2014)?

According to RAND, the evaluation scores were determined by:

- The location of services (was behavioral and physical health services provided in the same building?)
- Did the care coordination include electronic health records (EHR) and/or a case manager?
- To what degree was the collaboration among the different providers?
- Does the staff feel included as a team member (Scharf et al., 2014, pp. 1-2)?

Each of the evaluation criteria yielded one point. The scores were then averaged for a final score.

The results concluded that the programs that provided care at the same location, used EHR, and a case manager was the most successful. The health outcomes were also improved especially with the practices that offered more than one service in the same building. Some of the barriers included getting staff to communicate as a team, determining how the records were to be created, how to bill for wellness services, and staff retention (Scharf et al., 2014). One question that needs to be addressed when approaching measures to improve the wellbeing of the mental health client is: Who is responsible for the physical healthcare needs of the mental health client? There must be a clear understanding that everyone involved in the care of the mentally ill client is responsible for helping them achieve the highest quality of life (Knight et al., 2017).

Care Coordination

Clients with chronic illnesses require frequent office visits, referrals, and changes to the plan of care. The coordinator of care is usually the person the client contacts the most. The care coordinator ensures that the client care needs are met and that the client is an active participant in the plan of care. When diagnostic test results or referrals are made to outside facilities, the care coordinator is responsible for tracking that information (SAMSHA, 2012). If care is to be managed appropriately, there must be a strong relationship between all the team members involved in the client's care.

Care coordination involves a case manager who collaborates with team members to make sure that the client's needs are met. NIMH performs research related to different health programs. A program known as RAISE (Recovery After Initial Schizophrenia

Episode) improved health outcomes. Care was delivered in a team approach coordinated by a case manager that included the management of medications and therapy (Gordon, 2018).

A community mental health center completed a study that included 407 subjects. Tests were done to determine if subjects that were assigned care managers had better health outcomes than those without care managers. At one year, 58.7% of the clients that were assigned to care managers followed up with all recommended preventative health services. Only 2% of the subjects without care managers followed up with recommended preventative services. The subjects who were assigned care managers were more likely to have established primary care providers (Druss et al., 2010).

Access to Care

If access to care is expected to improve, people must have a health care provider and clinic that they are familiar with and visit frequently. *Healthy People 2020* noted that access to care was best accomplished through frequent use of health services (U. S. Department of Human Services, 2014). Decreased access to care could be detrimental to one's quality of life. Many variables affect accessing quality health care including cognitive deficits, substance abuse, low income, and poor family support (De Hert et al., 2011b).

Some common barriers that people with chronic mental illnesses experienced regarding access to care included not having money for office visits, medications, and transportation. Some people who had severe mental illnesses lacked the competency to plan and schedule office visits (Vanderlip et al., 2016). Often times the clients were ashamed of the stigma attached to mental illnesses. Sometimes the clients needed help

with navigating through this system. Navigating the health care system was often

accomplished with the assistance of a care coordinator or care manager (Vanderlip et al.,

2016).

Psychiatry online reported that an extension was approved by the American

Psychological Association (APA), which justified extending the scope of practice for

psychiatrists to treat common health conditions limited to specific situations. (Vanderlip

et al., 2016). The approval of extension was intended to improve health outcomes by

providing access to health education, better coordination of primary care, and advocate

for improved health in the psychiatric population (Vanderlip et al., 2016).

Theoretical Framework

The DNP project was based on two theoretical frameworks. The first theoretical

model was related to the educational training component of the project. The second

theoretical model was related to the referral component of the project. The two models

were descriptive to each aspect of the project.

Health Belief Model

Often, people did not seek medical care if they did not experience negative or

bothersome symptoms from illnesses. A person had to believe they were at risk for an

illness in order for them to be concerned about the prevention or treatment of an illness.

The Health Belief Model developed by Irwin Rosenstock in 1966 serves as a model for

health promotion (Raingruber, 2014; Rosenstock, 1974).

Rosenstock based his theory on the belief that a person needed to believe that they

are at risk for developing an illness before they would be interested in taking measures to

prevent the illness. Researchers sought to further develop the Health Belief Model and

identified six criteria that needed to be met before a person would consider making a change in behavior. A person must believe that a change is needed and

1. Believe they are susceptible to the condition (perceived susceptibility)

2. Believe the condition has serious consequences (perceived severity)

3. Believe taking action would reduce their susceptibility to the condition or its severity (perceived benefits)

4. Believe the costs (perceived barriers) of taking action are outweighed by the benefits

5. Are exposed to factors that prompt action (cue to action)

6. Are confident in their ability to successfully perform an action (self-efficacy) (Glanz, Burke, & Rimer, 2015, p. 239; Rosenstock, 1974).

The attitudes of the CHWs regarding the relevance of the information presented will be evaluated in this project. Self-efficacy cannot be established until the relevance of information has been determined. The mental health client will have to understand that they are at risk of having or developing a chronic illness, especially if they are on anti-psychotic medications (perceived susceptibility). The risk for disease will be increased if the client has other risk factors associated with chronic illnesses (perceived susceptibility and severity) (Glanz et al., 2015; Rosenstock, 1974).

The mental health client was educated on the importance of screening and early detection of diseases (perceived benefits). The client will be instructed on the benefits of preventing illness and promoting wellness, which leads to a higher quality of life (perceived benefits). Barriers to care will be considered before the client will have to determine if accessing primary care will be beneficial (perceived benefits). The

educational information will be included in the group sessions the clients are already

attending five days per week. Finally, the CHW will follow up with the client

periodically to see if the mental health client has accessed primary care (cue to action)

(Glanz et al., 2015; Rosenstock, 1974).

The project was expected to be successful because all the components of the

Health Belief Model were considered when designing the program. The clients'

perception of the relevance of information to their life is vital to the success of this

program (Glanz et al., 2015). The importance and the effects of not seeking physical

health care in addition to their mental health care must be portrayed to the client. The

mental health client needs to see wellness as the goal of this project, so they can have a

higher quality of life and a longer life span.

People with mental illness are at a higher risk for developing other physical health

illnesses. Some are not mentally capable of initiating access to care. In the mental health

facilities, physical health needs are not being addressed. The clients are being advised to

follow up with primary care providers for physical health needs. Sometimes they do not

have the knowledge to do so. When systems such as care coordination are in place, the

clients can get the assistance needed to initiate and follow up with recommended care.

Integrated health care systems are expected to provide holistic care by treating the

behavioral, physical, and social aspects of individuals (AHRQ, 2014).

Behavioral System Model

In 1968, Dorothy E. Johnson's Behavior System Model of Nursing was first

proposed (Johnson, 1990; Petiprin, 2016). The theory focused on how well an

individual's behavior impacted the prevention of illnesses. Johnson described the body as

having two systems, which are biological and behavioral (Johnson, 1990; Petiprin, 2016). The project addressed and explored all concepts listed in the Behavior System Model of Nursing. The first concept of this model assigned the biological system to the department of medicine and the behavioral system to the department of nursing. The focus of this project was to improve the biological aspects by increasing access to primary care in the mental healthcare facility. CHWs addressed the behavioral system in this project by acting as a care coordinator or care manager. The CHWs assisted with the referrals to primary care physicians.

The second concept was related to how one's behavior was affected by the surroundings. The population consisted of those with a diagnosis of mental illness. The mental health population was known to have many barriers to accessing health care. Many of the barriers may be related to lack of cultural competencies (Grazier, Smiley, & Bondalapati, 2016). When people are dealing with poverty, the most important things are food and a place to live. Health problems often get neglected. Of individuals with mental illnesses, about 56% get treated in the primary care setting by providers who are not properly trained to treat mental illnesses (Grazier et al., 2016). People are not likely to access health care unless a problem or symptom is identified. If those with mental illnesses are in an environment that is not accustomed to frequently visiting a healthcare provider, then they will most likely not seek primary care either. The project focused on increasing access to primary health care by assisting with the referral process.

The third concept noted the importance of the social, emotional, physical, and mental realms of the maintenance of health. According to the Mental Health Foundation, mental and physical health should be thought of as one because one can negatively or

positively impact the other (Mental Health Foundation, 2018). As previously noted, those with serious mental illnesses are more likely to have health problems. The project informed the CHWs regarding the importance of the clients to obtain physical health care.

The fourth concept of the model was almost the same as the previous one. The focus was to help individuals maintain a balance between biological and behavioral illnesses. The project provided a balance between mental and physical health by utilizing the CHW to coordinate the physical care needs of the mentally ill client. The project explored all concepts listed in the Behavior System Model of Nursing (Johnson, 1990; Petiprin, 2016).

<div align="center">Doctor of Nursing Practice Essentials</div>

The project incorporated several of the Essentials of Doctoral Education for Advanced Nursing Practice (DNP). The essentials are listed below:

I. Scientific underpinnings for practice

II. Organizational and systems leadership for quality improvement and systems thinking

III. Clinical leadership and analytical methods for evidence-based practice

IV. Information systems/technology and patient care technology for the improvement and transformation of health care

V. Health care policy for advocacy in health care

VI. Interpersonal collaboration for improving patient and population health outcomes

VII. Clinical prevention and population health for improving the nation's

health

VIII. Advance nursing practice (American Association of Colleges of Nursing

[AACN], 2006, pp. 8-16).

Essentials I, II, III, VI, VII, and VIII are addressed in this project. Essential I was met

with the development and implementation of the educational training program, referral

policy, and referral toolkit. A new approach to care was developed and evaluated by the

DNP students who address Essential II. Essential III included the dissemination of

evidence-based research findings via a poster presentation. See Appendix B for the

complete table which addressed the six essentials in the DNP project.

<div align="center">Project Purpose</div>

The aim of the educational training component of the project was to provide a

physical health education-training program for CHWs at an outpatient mental health

facility. CHW's attitude and knowledge were evaluated. The desire was for physical

health education to be integrated into the group sessions at a day treatment program for

the seriously mentally ill client. The DNP students provided the training to the CHWs.

The attitude and knowledge of the CHW were then evaluated.

The aim of the referral component of the project was to provide improved access

to primary healthcare facilities for mental health consumers by developing a referral

policy and tool kit. The focus group was screened to determine the ease of use and

overall usefulness of the referral toolkit. The screening determined that the focus group

perceived the referral toolkit to be useful in referring mental health clients to primary care

facilities. Space was provided on the screening form that allowed the focus group to

modify the policy and toolkit to improve utilization. The objective was for staff to have a referral system that would assist the mental health clients in accessing primary health care.

Assumptions

One assumption was that the client will understand and buy into seeking primary care after receiving the educational information. The second assumption was that the CHW would continue to integrate the physical health educational information into the group sessions after the project was complete. Another assumption was that the client would be receptive to the information and understand the importance of regular follow up with primary care for preventive screenings and disease prevention measures.

The assumption was that access to care for mental health consumers at the local outpatient mental health facility would be easier. There was also an assumption that the staff at the local outpatient mental health facility would be receptive to using the toolkit as a protocol method for referring clients to primary care facilities. The final assumption was that collaboration and care coordination would be initiated and continued with the implementation of the toolkit.

Summary

The DNP project included an educational training and a referral policy and toolkit at a local mental health outpatient facility. Relevant evidence has been documented to justify the interventions that were used in the project. Conceptual frameworks have been identified and followed for the development of the project. The purpose of this project has been identified. The DNP Essentials that this project addressed were also stated.

CHAPTER II - METHODOLOGY

The purpose of this Doctor of Nursing Practice (DNP) project was to provide education to CHWs who work in a day treatment program as well as develop a referral policy and toolkit. The project was designed to increase the physical health educational needs of the clients by educating the CHW. The purpose of this project was to assist the mental health staff and clients with referrals to physical health facilities with the development of the referral policy and toolkit. The mental health population often does not receive regular preventive health screenings and does not receive routine treatment for chronic illnesses.

The project evaluated the CHW's attitude towards providing physical education and evaluate the effects of physical health training in the outpatient mental health setting. A toolkit was developed by these DNP students for the staff to assist the clients in making referrals for primary care. The tool kit was designed utilizing questions from the *CHW Training Resource for Preventing Heart Disease and Stroke*, Chapter Ten (*Talking to Your Doctor*, CDC, 2015). The toolkit included: (a) a questionnaire, (b) a referral form, (c) a form that list questions that the client can ask the provider and items that may be needed at the referral visit, and (d) a list of local primary healthcare facilities with clinic contact information to the facilities.

The desired outcome for the joint project was to:

- Improve client access to primary care with the utilization of the referral policy and toolkit

- Increase staff awareness of the need for physical health care in the outpatient

  mental health facilities

- Promote integrated care

Setting

The project was implemented in two separate entities of an outpatient mental health facility in a rural area in Mississippi. The project was implemented in day treatment programs in two counties. The day treatment programs provide activities for the mentally ill clients ages 18 and older. The clients attended the day treatment program for five out of seven days for approximately six hours per day. The clients participate in group sessions and each day a different activity is provided for the clients.

Population and Sample

The population was the CHW facilitating individuals with mental illness that attend day treatment programs. There was a total of eight CHWs who facilitate the two programs which are the sample for this project. Two counties were selected by the Director of Adult Services of the mental health facility. The first-day treatment program had approximately 35 clients with five CHWs. The second-day treatment program had approximately 20 clients with three CHW. An approximate total of 55 clients with serious mental illness was enrolled in day treatment programs. The CHWs received on the job training to serve in the capacity in which they currently serve. The educational status of the staff was collected upon initiation of the project.

The educational training program was presented to the CHWs. The CHWs were evaluated to see if the class was beneficial. The focus of this project consisted of providing preventive health education to the CHW to increase knowledge of some

common chronic illnesses in this population. Regular incorporation of physical health education in the group setting was the primary goal of this project.

Design

   Health Education. An educational program was designed and implemented for the CHWs that facilitate the day treatment programs attended by people with serious mental illness. The project initiated a practice change in the mental health facility's day treatment program. The curriculum was adapted from *A Community Health Worker Training Resource for Preventing Heart Disease and Stroke* (CDC, 2015, para. 2). Only select chapters were used for the training program. The chapters were numbered seven (*High Blood Pressure*), eight (*High Cholesterol*), nine (*Diabetes*), and twelve (*Healthy Eating and Weight Control*). Each chapter consisted of a pretest, posttest, and resources that the CHW could give to clients. Robson and Haddad's (2012) Physical Health Attitude Scale (PHASe) was used to evaluate the attitude of the CHWs toward providing physical health information to the mental health client. The tool also evaluated the effects of professional development (Robson & Haddad, 2012).

   Referral. The design of the referral component of the project is descriptive. The referral policy includes a step by step guideline for referring the mental health clients to physical health facilities. The referral toolkit consists of an assessment form, a referral form, a list of questions that the client can ask at the doctor's visit and a list of optional clinics for primary care (CDC, 2015). The information for the list of questions regarding what the clients could ask the doctor was obtained from Chapter Ten (*Talking to Your Doctor*) (CDC, 2015). The primary project outcomes provided a guideline for referring

mental health clients to primary care facilities. The long-term outcome included improved health outcomes for mental health clients by increasing access to primary care.

Procedures

The DNP students met with CHWs at each day treatment facility during working hours. The CHW were instructed on the project and the project purpose. Written consent for participation in the project was obtained. The DNP students distributed the educational materials to each CHWs that consented to participate. Instructions were given to staff for completing the tests and surveys. The CHW was instructed to interchange the word "nurse" for "staff" on the PHASe survey for purposes of this project. The information was presented in an informal manner. The CHWs were afforded the opportunity to ask questions.

The pretests and surveys for the educational section of this project were administered to the CHW. The pretest and surveys were collected by the DNP students. An educational presentation via power-point followed. The educational power-point consisted of educating the CHW regarding some of the most common physical illnesses that occur in mental health clients. The illnesses included hypertension, diabetes, and hyperlipidemia. Some preventive health measures that were discussed included mammogram screenings and prostate exams. Questions and comments were addressed. The posttests and surveys were administered and collected by the DNP students upon completion. An answer key to the pre and posttests was available for the DNP students to check the tests for correct answers. The pre and posttests answers were compared to note if knowledge was increased post educational training. Each participant received a numbered pretest, pre-survey, posttest, and post-survey. The tests and surveys were given

to each participant corresponded numerically so each participants' test and the survey could be compared before and after the training program.

A referral policy was developed by the DNP students for the mental health facility. The referral form was developed by using *Paul Bullen's Writing Policy and Organisational Manuals* as a guide (Bullen, 2018). A toolkit was also developed by the DNP students for the staff to assist the clients in making referrals for primary care. The toolkit included questions from Chapter Ten of the CHW Resource Manual (*Talking to Your Doctor*) (CDC, 2015). A copy of the referral policy and toolkit information was distributed to the CHW (Appendix A).

The policy and referral toolkit was presented to CHW and middle management staff at the outpatient mental health facilities. A focus group was established by the Director of Adult Services to complete a questionnaire to determine if the policy and toolkit were useful in referring the mental health clients to primary care facilities. The focus group also made written recommendations for modifications to the referral policy and toolkit to make it more useful. The questionnaire was collected by the DNP students once completed by the focus group.

Data Collection

The Physical Health Attitude Scale (PHASe) was used to evaluate the attitude of the CHW toward providing physical education in the mental health setting (Robson & Haddad, 2012). The responses for each of the items were numbered one to five as follows: (1) strongly disagree, (2) disagree, (3) uncertain, (4) agree, and (5) strongly agree. The pre and post-tests were used to compare knowledge before and after the educational training. A questionnaire was given to the participants to determine if the

policy and toolkit should be utilized as a method of referring mental health clients to primary care facilities. The participants completed a questionnaire that addressed ways to improve referral policy and toolkit. The data was collected by the DNP students. No identifying information was noted on the questionnaire.

Ethical Protection of Human Subjects

There were minimal risks of harm to participants associated with this project. The project participants were staff members of the mental health facility. No identifying information was used in the collection of data. Data was anonymously collected using a coding system and is not associated with any single participant. Therefore, there was no risk of breach of confidentiality or privacy. The data was recorded as aggregate data. The training was conducted during work hours. The DNP students' contact information was provided to participants for any questions. The DNP students also followed up at the facility twice a week to answer any questions.

Data Analysis

The pretest, posttest, and PHASe assessment tool was evaluated by the DNP students. The focus group questionnaire was also evaluated by DNP students. The information was analyzed and resulted. The data collected provided answers to the PICOTs: "In an outpatient mental health facility, how does providing a physical health education training program compared to not providing a physical health education program influence the knowledge of physical health needs and attitudes of the community health care worker in a day treatment program?" "In an outpatient mental health facility, does the development and utilization of a referral policy and referral toolkit compared to no referral policy and toolkit assist the community health care worker

in referring mental health clients to primary care facilities?" The actual client referrals and follow up information included in the toolkit was not included in this project due to time constraints.

Summary

The purpose of this project was to increase the CHWs knowledge regarding the clients' physical health care needs. A referral policy and toolkit was also developed to assist CHWs in referring mental health clients for physical health care. The DNP students presented a physical health educational training at two mental health day treatment programs using a power-point presentation. The material was presented to CHWs which served as the sample for this DNP project. The introduction of the referral policy and toolkit was also presented to the CHWs by the DNP students. Pretests and posttests and pre and post surveys were administered to the CHWs to assess their knowledge regarding physical health before and after the presentation of the information. Following the introduction of the toolkit to CHWs and a focus group, a questionnaire was administered to the focus group. The purpose of the questionnaire to the focus group was to determine if the group thought the referral policy and toolkit would be useful in assisting staff at the mental health facility with client referrals to physical health facilities. The pretests, posttests, surveys, and the questionnaires were collected and evaluated by the DNP students. The data was analyzed and addressed both PICOT questions.

CHAPTER III - RESULTS

The purpose of the education training in the DNP project was to provide an educational training program to staff regarding physical health problems most commonly seen in individuals with mental illness. The staff's attitude and knowledge were measured before and after the information was presented. The attitudes were measured using the PHASe tool. The PHASe tool consists of twenty-eight items. The information was presented to staff at the day treatment facilities on two separate dates one week apart. A total of eight staff members participated. There were seven females (90%) and one male (10%). Their educational levels consisted of four with unspecified college degrees, two with high school diplomas, one with a master's degree, and one that did not disclose educational status.

Descriptive statistics were used to find averages for all pre/posttest and survey scores. Data was assessed using Pearson's Chi-Square with a 95% Confidence Interval. Pearson's Chi-Square was used to measure the agreement between the variables. Any p value above 0.05 indicated that there was no relationship between variables.
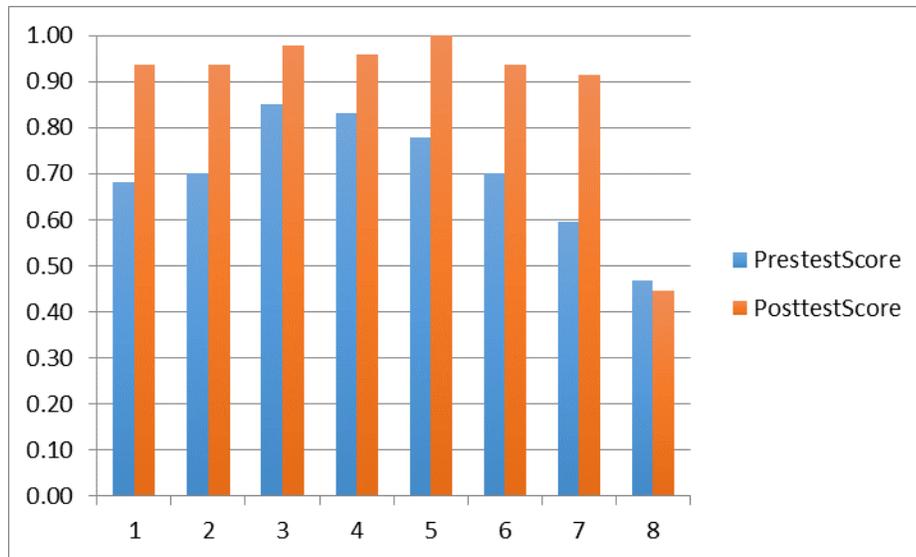
Figure 1. Comparison Pretest Scores Versus Posttest Scores.

Average attitude score before the training session was 33.5, after the training session the average attitude was 35.9. The mean attitude pretest score was 3.35. The mean attitude posttest score was 3.59. The *p*-value was 0.13. The average confidence score prior to the training session was 16.8. After the training session, the average confidence score was 18.4. The pretest mean confidence score was 2.8. The posttest mean confidence score was 3.06. The *p*-value was 0.37. The average perceived barriers score before the training session was 21.25. After the training session, the average perceived barriers score was 21.75. The pretest mean perceived barrier score was 3.04. The posttest mean perceived barrier score was 3.11. The *p*-value was 0.09. The average smoking attitude score prior to the training session was 11.8. The average smoking attitude score after the training session was 12.5. The mean pretest smoking attitude score was 2.36. The mean posttest smoking attitude score was 2.5. The *p*-value was 0.43. The overall average knowledge pre-test score was 70%. The average knowledge post-test score was 89%. The *p*-value was 0.1.

The purpose of the referral component of the project was to develop a referral policy and referral toolkit to determine the staff's perception of the ease of use and usefulness in assisting with referrals to primary care services. The referral policy and toolkit were presented to staff at the day treatment programs and to a middle management focus group. There were eight participants that completed a questionnaire. The questionnaire addressed specific questions such as if the tool was useful and if so why? Also, how easy was the toolkit to utilize and the overall usefulness of the toolkit? The questionnaire was administered to eight providers. The questions had a numbered rating from 1-5 with 1 being not useful and 5 being very useful. Any numbers in between suggest modifications in which the staff responded by writing suggestions.

Table 1

EaseScore* Usefulness Score Crosstabulation

Usefulness Score		3	4	5	Total
EaseScore	3	0	1	4	5
	5	1	0	2	3
Total		1	1	6	8

Note. *p*-value 0.32, not significant.

Table 2

ValueScore* Usefulness Score Crosstabulation

Usefulness Score		3	4	5	Total
ValueScore	3	1	0	0	1
	4	0	1	2	3
	5	0	0	4	4
Total		1	1	6	8

Note. *p*-value 0.04, yes significant

The ease of usefulness chart was completed using crosstabulation. Of the eight participants, six rated it a 5 (80%), one person rated it a 4 (10%), and the last rated it a 3(10%). The *p*-value was 0.32 which is not statistically significant. The value score for the usefulness of the tool was also completed with crosstabulation. Of the eight participants, six rated the tool a 5(80%), one rated it a 4 (10%), and the last rated it a 3 (10%). The *p*-value was 0.04. The test determined that there is a relationship between the ease of use and overall usefulness of the referral toolkit.

<div align="center">Summary</div>

The CHWs' attitude and knowledge were measured before and after the physical health information was presented. The CHWs knowledge was measured by using pretest and posttest scores. The attitudes were measured using the PHASe tool (Robson & Haddad, 2012). Descriptive statistics were used to find averages for all pretests, pre-surveys, posttests and post-surveys scores. Data was assessed using Pearson's Chi-Square with a 95% Confidence Interval. There were eight participants that completed the tests, surveys, and questionnaires. An increase in the CHWs knowledge was apparent based on the data means. The questionnaire addressed specific questions related to the overall ease of use and usefulness of the toolkit. Following a crosstabulation test, a relationship

between the ease of use and the overall usefulness of the toolkit was determined. The

staff also verbalized that the referral policy and toolkit would be useful in referring the

mental health clients to primary care facilities.

CHAPTER IV – DISCUSSION

The goal of this project was to determine if a physical health education training program affected the knowledge and attitude of the mental health worker in an outpatient treatment facility. Knowledge of the CHW was measured by a pre and post-test adapted from *A Community Health Worker Training Resource for Preventing Heart Disease and Stroke* (CDC, 2015). The educational information and pre/posttests were obtained from chapters seven, eight, nine, and twelve. The attitude of the CHW was measured by the Physical Health Attitude Scale (PHASe) tool (Robson & Haddad, 2012). The tool measured the attitudes, confidence, and perceived barriers in delivering physical health care to the mental health client. The tool also measured the attitude towards smoking.

Although the pre and post-test results were deemed not statistically significant based on a 95% Confidence Interval, there was a difference in averages between all pre and post results. Based on these results the DNP students determined that the training session was beneficial to increase the knowledge of the CHW in the day treatment facility. The attitude of the CHW was also positively affected by the training session. A previous cross-sectional study revealed that nurses that received physical health training displayed more positive attitudes regarding physical health care for mentally ill clients (Robson et al, 2013). Robson et al. (2013) support that providing an educational training program related to physical health education improves the attitudes and knowledge of mental health staff.

The aim of the referral component of the project was to develop a referral policy and referral toolkit so that it could be used as a guide to assist mental health workers with referring clients for physical health care. When comparing the ease of use of the referral

toolkit to the overall usefulness, there was a relationship noted. The staff agreed that the toolkit will be useful in assisting the clients in primary care.

When specifically asked why the toolkit was useful, there were a variety of answers given. Most answered, "It helps clients understand mental and physical health." Other answers were that "Clients don't receive health care despite having a primary care provider," and "Important information was addressed that increased consumer awareness." When asked why it was thought not to be useful only two replied. One replied, "The information was not easy to understand." The other replied, "More information needs to be provided to the consumers." The mental and physical aspects of care should be addressed. When both the mental and physical aspects of health care are met, it is known today as integrated care. Kristiansen et al. (2015) reported that in the mental health facilities, it is important for management to be involved in promoting physical health. Promoting physical health was established by implementing materials such as the referral toolkit which makes referrals easy to complete.

Following the DNP project presentation, the staff at the facility reported that the physical education training and referral toolkit was helpful and needed. The mental health staff also reported improved knowledge of physical health care that should be implemented throughout the mental health arena as well as applied personally. The staff's awareness of the importance of preventive health needs was increased according to the posttest results. The referral toolkit created an opportunity to promote integrated care between mental health and physical health providers. Physical health treatment will assist in increasing the overall health of the mental health clients as well as decrease the

mortality risk in this population. Resourceful educational materials, as well as the policy

and toolkits, were distributed at both day treatment sites of the facility.

<div align="center">Doctor of Nursing Practice Essentials</div>

The project aim was to implement a change at the mental health facility regarding

physical health education and referring mental health clients to primary care services.

The effort was to assist in decreasing the morbidity rate of mental health clients as related

to preventable diseases. DNP essentials and competencies (AACN, 2006) are fulfilled

upon completion of this DNP project (Appendix B).

<div align="center">Limitations and Barriers</div>

The staff at the facility where the project was presented were receptive to the

information presented. The staff's receptiveness of the information was one of the major

strengths of the project. The major limitation was the small sample size. Another

limitation was that the DNP students were limited to disseminating information in only

two facilities. Although results did not support statistical significance, the overall project

was deemed beneficial to the staff. Due to circumstances beyond our control, time was a

limitation. DNP students could not determine how many client referrals were completed

due to time constraints. Client interaction was not permitted due to the vulnerability of

the population and the IRB application request.

<div align="center">Future Practice Implications</div>

Future investigations are warranted to assess how many clients will complete

referrals to primary care facilities within a six-month period. An investigation could be

conducted to determine if the educational information provided in the group setting

increases the knowledge of the mental health client. A higher number of referrals may be

<div align="center">41</div>

implicated in the outpatient facilities versus the day treatment programs. The clients at the day treatment program have more contact with mental health providers than those in general outpatient care. A study could be conducted to determine the mental health client's view of the utilization of the referral toolkit.

Lessons Learned

The DNP students learned the importance of treating the clients in a holistic manner. The students also learned the importance of being proactive regarding nursing policies and implications. The DNP students also learned to be better advocates for client care, especially in special populations.

Conclusion

To assist in increasing the life span of the client living with mental illness, incorporating the importance of physical health needs in the mental health setting is vital. Providing physical health education to mental health consumers increases the likelihood that they will seek primary care. All involved with the care of the mentally ill clients should promote total wellbeing.

The DNP project concluded that providing a physical health educational program positively influenced the knowledge of physical health needs and attitudes of the CHWs in the day treatment program. The project also concluded that staff perceived the referral toolkit and policy as useful tools in assisting with referrals of mental health clients to primary care. A training resource book was provided at the day treatment program facility to further assist in educating the clients on physical health needs. The implementation of the referral policy will promote integrated health care by providing an opportunity for collaboration between mental and physical health providers.

APPENDIX A – Toolkit and Questionnaires

Pretest/Posttest 1 Questions

Circle the letters for ALL the correct answers in questions 1−9. A question may have more than one answer.

1. Which of the following statements about high blood pressure is FALSE?

    a. Doctors can easily detect high blood pressure because it has many symptoms.

    b. High blood pressure is a major risk factor for heart disease and stroke.

    c. High blood pressure causes the heart to become weaker.

    d. d. High blood pressure damages the walls of the arteries.

2. The best ways to lower high blood pressure include

    a. Eating healthy foods that are low in sodium.

    b. Not smoking.

    c. Getting to and keeping a healthy weight.

    d. Being moderately to vigorously active for at least 150 minutes each week.

    e. Taking your blood pressure medicine as your doctor advises.

    f. Limiting the amount of alcohol you drink.

3. The normal blood pressure in adults is

    a. Less than 120/80 mm Hg.

    b. Less than 150/90 mm Hg.

    c. Less than 160/99 mm Hg.

4. Which of the following situations can cause a false reading of high blood pressure?

   a. The client's legs are crossed.

   b. The client has been waiting in a chair for 5 minutes or longer.

   c. The blood pressure cuff is too small.

   d. The arm to be used for taking the blood pressure has been resting on the arm of a chair.

   e. Telling the client that he or she will feel some pressure on the arm being used to take the blood pressure.

   f. The client needs to use the bathroom.

   g. The client is talking while the blood pressure is being measured.

5. What is the most common mistake people make when taking blood pressure?

   a. Using a cuff that is not the right size for the person's arm.

   b. Not determining how much the cuff should be inflated.

   c. Rounding up to even numbers that can be divided by 10. For example, the blood pressure is 138/78, but the CHW rounds it up to 140/80.

   d. Not matching the index line on the blood pressure cuff to the right place on the arm.

6. When can people stop taking medicines that lower their blood pressure?

   a. When they are feeling well.

   b. If they forget to get a refill of their medicine.

   c. When they do not see a doctor, nurse, or CHW for several months.

d. When their doctor tells them to stop taking their medicine for high blood pressure and does not put them on a new one to control their blood pressure.

7. What is the best test for measuring blood cholesterol levels?

    a. Finger prick.

    b. Lipid profile.

    c. A1c.

8. What lifestyle changes can improve blood cholesterol levels?

    a. Eat more fruits and vegetables.

    b. Stop smoking.

    c. Eat less meat that is high in fat.

    d. Lose weight, if overweight.

    e. Eat fewer packaged cookies.

9. What can high levels of LDL do to your body?

    a. Cause a narrowing of the arteries.

    b. Cause a build-up of plaque (cholesterol) in the arteries.

    c. Cause a heart attack.

A CHW Training Resource (CDC, 2015).

Pretest/Posttest 2 Questions

Circle letters for ALL correct answers. A question may have more than one correct

answer.

    1. Why is it important for people with diabetes to be physically active?

       a. It can help control blood glucose.

       b. It can help control blood pressure.

       c. It can give them more energy.

    2. What are the signs of diabetes?

       a. Blurred vision.

       b. Loss of energy.

       c. Slow-healing sores and other injuries.

       d. Being very thirsty all the time.

    3. What risk factors for diabetes can be controlled?

       a. Weight.

       b. Smoking.

       c. Family history.

       d. Physical activity.

    4. If your blood sugar is very low, which of the following can you drink to raise

       your blood sugar?

       a. Orange juice.

       b. Plain tea without sugar.

c. Wine.

5. Which of the following conditions can diabetes cause?

   a. Arthritis.

   b. Blindness.

   c. Heart disease.

   d. Gum disease.

6. Which of the following is not a sign of low blood glucose?

   a. Sweating.

   b. Confusion.

   c. Fatigue.

   d. Being hungry.

7. Which of the following will help you lower your LDL (bad) cholesterol?

   a. Butter.

   b. Avocado.

   c. Olive oil.

   d. Beans.

   e. Fatty meats.

8. The DASH Eating Plan advises you to eat or drink which of the following?

   a. White, refined bread.

   b. Fruits and vegetables.

   c. Sweet tea.

d. Foods low in sodium.

e. Water

9. Useful information on a Nutrition Food label includes

a. Amount per Serving.

b. Calories per serving size.

c. Amounts of saturated fat, cholesterol, and trans fat.

d. Cost per serving.

A CHW Training Resource (CDC, 2015).

Mental Health Nurse Physical Health Attitude Scale (PHASe)

	Please read the statement and tick/click the box that relates best to your personal opinion	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
1	Helping clients manage their weight should be part of the mental health nurses role	☐	☐	☐	☐	☐
2	Giving nutritional advice to clients should be part of a mental health nurses role	☐	☐	☐	☐	☐
3	I am confident in assessing signs and symptoms of hyperglycaemia	☐	☐	☐	☐	☐
4	It should not be the role of the mental health nurse to provide advice about exercise to clients	☐	☐	☐	☐	☐
5	Clients with serious mental health problems are not interested in improving their physical health	☐	☐	☐	☐	☐
6	Giving advice on how to prevent heart disease should be part of the mental health nurses role	☐	☐	☐	☐	☐
7	It should not be the mental health nurse role to check with a client if they have had cancer screening checks (ie cervical smear /mammogram)	☐	☐	☐	☐	☐
8	I am confident that I can measure a clients blood-pressure accurately	☐	☐	☐	☐	☐
9	It is difficult to get clients to follow advice on how to manage their weight	☐	☐	☐	☐	☐
10	Ensuring clients are registered with a dentist should be part of the mental health nurses role	☐	☐	☐	☐	☐
11	Mental health nurses should provide clients with contraceptive advice	☐	☐	☐	☐	☐
12	Clients should not be encouraged to give up smoking, as they have enough to cope with	☐	☐	☐	☐	☐
13	Informing clients about the possible effects medication may have on their physical health will increase non-adherence	☐	☐	☐	☐	☐
14	Staff should be banned from smoking on all Healthcare premises	☐	☐	☐	☐	☐

		Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
15	Clients are not motivated to exercise	☐	☐	☐	☐	☐
16	Clients should be given cigarettes to help achieve therapeutic goals	☐	☐	☐	☐	☐
17	Mental health nurses should educate female clients about the importance of breast self-examination	☐	☐	☐	☐	☐
18	It is difficult to get clients to follow healthy-eating advice	☐	☐	☐	☐	☐
19	I am confident in assessing signs and symptoms of hypoglycaemia	☐	☐	☐	☐	☐
20	Clients should be banned from smoking on all Healthcare premises	☐	☐	☐	☐	☐
21	I am confident that I know which psychotropic drugs increase the risk that a client may experience cardiac problems	☐	☐	☐	☐	☐
22	Ensuring clients have their eyes regularly checked by an optician should be part of the mental health nurses role	☐	☐	☐	☐	☐
23	My workload prevents me doing any physical health promotion with clients	☐	☐	☐	☐	☐
24	I am confident that I know which psychotropic drugs may cause damage to the eyes	☐	☐	☐	☐	☐
25	Mental health nurses should educate male clients about the importance of testicular self examination	☐	☐	☐	☐	☐
26	I am confident that I could resuscitate a client who had a cardiac arrest	☐	☐	☐	☐	☐
27	Clients' physical health worries are mostly due to their mental illness	☐	☐	☐	☐	☐
28	Staff and clients smoking together helps to build a therapeutic relationship	☐	☐	☐	☐	☐

ABOUT YOU (please tick the box that applies to you)

Male ☐ [1]

Female ☐ [2]

How old are you?

What year did you qualify?

Do You smoke?

No ☐ [1]

Yes ☐ [2]

Grade
Band 2 ☐
Band 3 ☐
Band 4 ☐
Band 5 ☐
Band 6 ☐
Band 7 ☐
Band 8 ☐

Other

What is your highest academic qualification?

Certificate (eg RMN, RGN	☐	[1]
Diploma (eg Dip HE)	☐	[2]
Degree (eg BSc/BA)	☐	[3]
Masters (eg MSc/MA)	☐	[4]
MPhil/PHD	☐	[5]

Other (please specify)

Where do you work?
In patient ☐ [1]

Community ☐ [2]

Specialty

General adult	☐	[1]
Forensic	☐	[2]
Older Adults	☐	[3]
CAMHS	☐	[4]
Addictions	☐	[5]
Primary Care	☐	[6]

Physical Health Training received in past 5 years

Name of Course	Length (days)

APPENDIX A: Current Practice

My current practice involves...................	Never 1	Rarely 2	Often 3	Very often 4	Always 5
Checking if clients have had their general physical health assessed when they first come into contact with our service	☐	☐	☐	☐	☐
Checking if the clients I work with are registered with a GP	☐	☐	☐	☐	☐
Assisting clients to attend to their personal hygiene	☐	☐	☐	☐	☐
Monitoring clients blood-pressure	☐	☐	☐	☐	☐
Giving clients advice on the benefits of exercising regularly	☐	☐	☐	☐	☐
Helping clients manage their weight	☐	☐	☐	☐	☐
Giving clients advice on how to eat healthily	☐	☐	☐	☐	☐
Assessing clients' bowel habits	☐	☐	☐	☐	☐
Giving clients advice on dental health	☐	☐	☐	☐	☐
Testing clients for glucose abnormalities (eg checking glucose in urine/checking a clients BM)	☐	☐	☐	☐	☐
Weighing clients routinely throughout their contact with our service	☐	☐	☐	☐	☐
Helping clients to stop smoking	☐	☐	☐	☐	☐
Giving clients contraceptive advice	☐	☐	☐	☐	☐
Ensuring clients have their eyesight assessed regularly	☐	☐	☐	☐	☐

APPENDIX B: PERCIEVED TRAINING NEEDS

I would like more training on............	Yes 1	No 2	Not sure 3
how to care for mental health clients with diabetes	☐	☐	☐
how to help clients manage their cardiovascular health	☐	☐	☐
interventions to help clients eat more healthily	☐	☐	☐
how to help clients exercise safely and effectively	☐	☐	☐
how to help clients stop smoking	☐	☐	☐
interventions to help clients manage their weight	☐	☐	☐
how to discuss reproductive health issues with clients	☐	☐	☐

Mental Health Nurse Physical Health Attitude Scale (PHASEe)

Scoring instructions

The 28 items of the PHASe are scored 1 (strongly disagree) to 5 (strongly agree), where 5 indicates strong agreement with positive health promoting attitudes.

The scale comprises of four components/factors

Component 1] nurses' attitudes to involvement in physical health care (10 items)

Items 1, 2, 4, 6, 7, 10, 11, 17, 22, 25

Component 2] nurses' confidence in delivering physical health care (6 items)

Items 3, 8, 19, 21, 24, 26

Component 3] perceived barriers to physical health care delivery (7 items)

Items 5, 9, 13, 15, 18, 23, 27

Component 4] nurses' attitudes to smoking (5 items)

Items 12, 14, 16, 20, 28

Some items have been stated in such a way that strong agreement indicates a negative attitude. The scoring of such items should be reversed for analysis purposes to ensure that a high score indicates positive attitudes.

ITEMS FOR SCORE REVERSAL:

    ITEM 4
    ITEM 5
    ITEM 7
    ITEM 9
    ITEM 12
    ITEM 13
    ITEM 15
    ITEM 16
    ITEM 18
    ITEM 23
    ITEM 27
    ITEM 28

The supplementary questions concerning participant demographics, practice and training are useful for audit and research purposes. These help identify associations between these staff characteristics and attitudes.

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(Robson & Haddad, 2012, pp. 72-83).

Focus Group Usefulness Questionnaire

Please rate the usefulness on a scale of 1 to 5 by circling one. If you rate a number other than 5 please write an explanation.

Is the toolkit useful? If so, please list why it is useful. 1 2 3 4 5

If the toolkit is not useful, please list why? 1 2 3 4 5

Is the toolkit easy to use? 1 2 3 4 5

If the toolkit is not easy to use, list how what can make it easier . 1 2 3 4 5

Referral Policy and Toolkit (updated)

1. Do you have a health care provider that you visit at least every six months and you consider them to be your doctor or primary care provider? Yes_____ No_____

2. If you answered yes to the question above, what is the name of your doctor and clinic?

   Doctor's name_____

   Clinic name _____

3. Have you visited your doctor or any doctor for physical health problems within a year? Yes_____ No_____

4. Have you had labs or blood work done this year? Yes_____   No_____

5. Have you been told that you have high blood pressure? Yes_____

   No_____

6. Have you been told that you have diabetes or problems with your blood sugar? Yes_____ No_____

7. Have you been told that you have high cholesterol or cholesterol problems? Yes_____ No_____

8. If you are a female age 50 or older, have you had a mammogram this year? Yes_____ No_____ N/A_____

9. If you are a male age 50 or older, have you had a prostate exam? Yes_____ No_____ N/A_____

10. If you are age 50 or older, have you -ever had a colonoscopy? Yes_____ No_____ N/A _____

If the response to questions 1, 3, 4 and 8-10 was No, a referral should be made to a primary care clinic of the client's choice.

Things to Consider When Going for Your Doctor's Visit

1. There are three questions listed below that you may want to ask the doctor regarding your medical condition.

2. You may want to take a friend or family member to help you with your doctor's visit.

3. Take a list of the medications that you take with you to your doctor's appointment. Make sure that you include over the counter medications or herbal medications.

4. If you have any concerns about your health, write it down and take it with you to your doctor's appointment.

5. If you have any questions about your medications that the doctor has not answered, remember that you can ask the pharmacist or someone at your drug store.

6. Make sure that you take a picture identification card with you to your appointment.

7. If you have insurance, make sure that you take your insurance card.

8. If you usually pay a specific amount or copay when you go see a doctor, make sure that you have that amount with you when you go see the doctor.

Questions That You May Want to Ask at Your Doctor's Visit

1. What is my main problem?

2. What do I need to do about my problem?

3. Why is it important for me to do this?

4. Ask for written information showing what was done at the visit. You can keep the information for your records and show any of your other doctors.

Pine Belt Mental Health Resources Referral Policy

Purpose

The purpose of this referral form is to provide a guideline for referring mental health clients to primary/physical health care facilities for evaluation and treatment of physical health needs.

Strategy

The community health workers (CHW) will use the assessment form to determine if a client needs a referral for treatment at a primary care facility. If the client answers no to at least one of the following questions, a referral to a primary/physical health facility should be completed.

1. Do you have a primary care provider that you consider your doctor?
2. Have you had a physical health examination within the last 1 year?
3. Have you had labs or blood work done within 1 year?
4. If you are a female age 50 or older, have you had a mammogram this year?
5. If you are a male age 50 or older, have you had a prostate exam?
6. If you are age 50 or older, have you ever had a colonoscopy?

Procedure

1. Complete an assessment form on each client annually.
2. A copy of the completed assessment form should be scanned in to the client's chart.
3. A referral will be determined as indicated above.
4. Make sure that the referral appointment is scheduled if indicated. This may require the staff to call to schedule the appointment or simply assist the client as needed.
5. If a referral is made, the client must be given the referral form, the clinic list, and the "things to remember" form to take with them.
6. The top section of the referral form must be completed to include: the client's name, date of birth, name and contact information of the clinic that the client was referred to, and date of appointment.
7. A copy of the referral form must be placed in a binder/folder labeled referral log.
   a. The referral log must be kept in a place at the facility that is not accessible to anyone other than the staff. (e.g. File cabinet, desk drawer)
   b. The referral log must be updated monthly.

APPENDIX B – Doctor of Nursing Practice Essentials

DNP Essentials	DNP Essentials and Competencies Met
I. Scientific underpinning for practice	Development, implementation, and evaluations of the educational training program and referral policy and toolkit were based on the Health Belief Model and Behavioral System Model.
II. Organizational and systems leadership for quality improvement and systems thinking	A new approach to care was developed and evaluated. The new approach met the organization's current and future needs by educating the staff and providing a referral policy and toolkit.
III. Clinical leadership and analytical methods for evidence-based practice	The evidence-based research findings of this project were disseminated through a poster presentation.
VI. Interpersonal collaboration for improving client and population health outcomes	Effective communication and collaboration skills were employed when conversing with upper management, the CHWs and the focus group throughout this project.
VII. Clinical prevention and population health for improving the nation's health	Concepts were synthesized using psychosocial dimensions related to prevention in the development, implementation, and evaluation of the project. The project addressed health promotion in the mental health population with the educational information provided to staff.
VIII. Advance nursing practice	Education and guidance were provided to individuals and groups to assist with complex health situations. The education and guidance were implemented with the development of the referral policy and toolkit.

APPENDIX C – Permission to Use the PHASe Questionnaire

Many thanks Debbie,

Yes Phaedra - you are very welcome to use the PHASe questionnaire.
I am attaching versions of the scale which may be useful for you, as well as pdf copies of the relevant papers.

We have a had considerable interest in the use of the PHASe to explore and evaluate approaches to the physical health of patients with serious mental illness - clearly this is an important topic important this topic. To date we have had contacts from researchers in Finland, Turkey, Australia, New Zealand, USA, Ireland, the UK - so there may be potential for a future publication comparing the attitudes of nurses/ mental health staff form different nations.

Do not hesitate to contact if I can provide any further assistance with your research.

Best wishes, Mark

Dr Mark Haddad
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Visiting Lecturer in Health Services Research
Centre for Health Services Research
School of Health Sciences

City, University of London
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London EC1R 1UW

Dear Phaedra

Thank you for your email and interest in using the PHASe. Feel free to use the it for your studies. I'm copying in Mark who has worked with international colleagues to adapt the scale in a number of different health settings.

Best wishes

Dr Debbie Robson, RMN, PhD

Senior Post Doc Researcher in Tobacco Addiction
National Addiction Centre, Addictions Department
& CLAHRC South London,
Institute of Psychiatry, Psychology & Neuroscience,
King's College London,
Addiction Sciences Building, 4 Windsor Walk, Denmark Hill,
London SE5 8BB

Subject: Permission to use the PHASe Tool

To Whom It May Concern:

My name is Phaedra McLin, I am a doctoral student at The University of Southern Mississippi in Hattiesburg, Mississippi. I am preparing to complete a project with mental health workers and I am in need of an assessment tool. I am looking to evaluate the workers' attitude and confidence about providing physical health care/education to the mentally ill client. I am writing to ask for permission to use your Physical Health Attitude Scale for Mental Health Nurses. I would like to change the word nurse to worker. Thank you for your time.

Sincerely,

Phaedra McLin

IRB-19-11 - Initial: Sacco Committee Letter - Expedited and Full

irb@usm.edu
Wed 1/16, 2:17 PM
Cathy Hughes; Phaedra Mclin; Stephanie Myers; Michael Howell; Michaela Don ⨺

👍   ↺ Reply all | ⌄

Inbox

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NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident template on Cayuse IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.

PROTOCOL NUMBER: IRB-19-11
PROJECT TITLE: Providing Preventive Health Education and Developing a Referral Policy and Toolkit to Increase Access to Primary Care for Individuals with Mental Illness
SCHOOL/PROGRAM: School of LANP
RESEARCHER(S): Phaedra Mclin, Stephanie Myers, Cathy Hughes,
IRB COMMITTEE ACTION: Approved
CATEGORY: Expedited
            7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural

beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

PERIOD OF APPROVAL: January 16, 2019 to January 16, 2020

Donald Sacco Jr.

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

REFERENCES

Agency for Health care Research and Quality (AHRQ). (2014). *Care Coordination*.

Retrieved from https://www.ahrq.gov/professionals/prevention-chronic-

care/improve/coordination/index.html

American Association of Colleges of Nursing (AACN). (2006). *The Essentials of*

Doctoral Education for Advanced Nursing Practice. Retrieved from

https://www.aacnnursing.org/Portals/42/Publications/DNPEssentials.pdf

Boutin-Foster, C., George, K. S., Samuel, T., Fraser-White, M., & Brown, H. (2008).

Training community health workers to be advocates for health promotion: Efforts

taken by a community-based organization to reduce health disparities in

cardiovascular disease. *Journal of Community Health, 33*(2). doi:10.1007/s10900-

007-9074-4

Brown, C., Read, H., Stanton, M., Zeeb, M., Jonikas, J. A., & Cook, J. A. (2015). A pilot

study of the nutrition and exercise for wellness and recovery (NEW-R): A weight

loss program for individuals with serious mental illnesses. *Psychiatric*

Rehabilitation Journal, 38(4), 371-373. http://dx.doi.org/10.1037/prj0000115

Bullen, P. (2018*). Writing Policy & Organizational Manuals*. Retrieved from

www.mapl.com.au/policy/tp1.htm

Cabassa, L. J., Manrique, Y., Meyreles, Q., Camacho, D., Capitelli, L., Younge, R., ...

Lewis-Fernandez, R. (2018). Bridges to better health and wellness: An adapted

health care manager intervention for Hispanics with serious mental illness.

Administration and Policy in Mental Health Services and Research, 45(1), 163-

173. http://dx.doi.org/10.1007/s10488-016-0781-y

Canadian Mental Health Association (CMHA). (n.d.). *The Relationship Between Mental*

   Health, Mental Illness, and Chronic Physical Conditions. Retrieved from

   https://ontario.cmha.ca/documents/the-relationship-between-mental-health-

   mental-illness-and-chronic-physical-conditions/

Centers for Disease Control and Prevention (CDC). (2012). *Mental Health and Chronic*

   Diseases. Retrieved from https://www.cdc.gov/workplacehealthpromotion/tools-

   resources/pdfs/issue-brief-no-2-mental-health-and-chronic-disease.pdf

Centers for Disease Control and Prevention (CDC). (2015). *A Community Health Worker*

   Training Resource. Retrieved from

   https://www.cdc.gov/dhdsp/programs/spha/chw_training/index.htm

Centers for Disease Control and Prevention (CDC). (2016). *The Community Health*

   Worker Core Consensus (C3) Project: 2016 Recommendations on CHW Roles,

   Skills, and Qualities. Retrieved from https://sph.uth.edu/dotAsset/55d79410-

   46d3-4988-a0c2-94876da1e08d.pdf

Centers for Disease Control and Prevention (CDC). (2017a). *Cardiovascular Disease:*

   Interventions Engaging Community Health Workers. Retrieved from

   https://www.thecommunityguide.org/findings/cardiovascular-disease-prevention-

   and-control-interventions-engaging-community-health

Centers for Disease Control and Prevention (CDC). (2017b). *Community Health*

   Workers. Retrieved from

   https://www.thecommunityguide.org/content/community-health-workers

Colton, C. W., & Manderscheid, R. W. (2006, April). Congruencies in increased

    mortality rates years of potential life lost and causes of death among public

    mental health clients in eight states. *Preventing Chronic Disease: Public Health*

    Research, Practice, and Policy, 3(2), 1-14. Retrieved from

    https://www.cdc.gov/pcd/issues/2006/apr/05_0180.htm

De Hert, M., Correll, C. U., Bobes, J., Cetkovich-Bakmas, M., Cohen, D., Asai, I., ...

    Leucht, S. (2011a, February). Physical illness in patients with severe mental

    disorders: Prevalence, impact of medications and disparities in health care. *World*

    Psychiatry, 10(1), 52-77. doi.org/10.1002/j.2051-5545.2011.tb00014.x

De Hert, M., Cohen, D., Bobes, J., Cetkovich-Bakmas, M., Leucht, S., Ndetei, D. M., ...

    Correll, C. U. (2011b, June). Physical illness in patients with severe mental

    disorders. II. Barriers to care, monitoring and treatment guidelines, plus

    recommendations at the system and individual level. *World Psychiatry, 10*(2),

    138-151. doi:10.1002/j.20515545.2011.tb00036.x

Druss, B. G., Chwastiak, L., Kern, J., Parks, J. J., Ward, M. C., & Raney, L. E. (2018,

    March). Psychiatry's role in improving the physical health of patients with serious

    mental illness: A report from the American Psychiatric Association. *Psychiatric*

    Services, 69(3), 254-256. http://dx.doi.org/10.1176/appi.ps.201700359

Druss, B. G., Von Esenwein, S. A., Compton, M. T., Rask, K. J., Zhao, L., & Parker, R.

    M. (2010, February). A randomized trial of medical care management for

    community mental health settings: The primary care access, referral, and

    evaluation (PCARE) study. *American Journal of Psychiatry, 167*(2), 151-159.

    http://dx.doi.org/10.1176/appi.ajp.2009.09050691

Gill, K. J., Zechner, M., Anderson, E. Z., Swarbrick, M., & Murphy, A. (2016). Wellness

for life: A pilot of an interprofessional intervention to address metabolic

syndrome in adults with serious mental illnesses. *Psychiatric Rehabilitation*

Journal, 39(2), 147-153. http://dx.doi.org/10.1037/prj0000172

Glanz, K., Burke, L. E., & Rimer, B. K. (2015). Health behavior theories. In J. B. Butts &

K. L. Rich (Eds.), *Philosophies and Theories for Advanced Nursing Practice* (2nd

ed., pp. 235-256). Burlington, MA: Jones & Bartlett Learning.

Gordon, J. (2018). *Highlighting Services and Effectiveness Research at NIMH*. Retrieved

from https://www.nimh.nih.gov/about/director/messages/2018/highlighting-

services-and-effectiveness-research-at-nimh.shtml

Grazier, K. L., Smiley, M. L., & Bondalapati, K. S. (2016). Overcoming barriers to

integrating behavioral health and primary care services. *Journal of Primary Care*

and Community Health, 7(4), 242-248.

http://dx.doi.org/10.1177/215013191665455

Haddad, M., Llewellyn-Jones, S., Yarnold, S., & Simpson, A. (2016). Improving the

physical health of people with severe mental illness in a low secure forensic unit:

An uncontrolled evaluation study of staff training and physical health care plans.

International Journal of Mental Health Nursing, 25, 554-565.

http://dx.doi.org/10.1111/inm.12246

Happell, B., Gaskin, C. J., & Stanton, R. (2016). Addressing the physical health of people

with serious mental illness: A potential solution for an enduring problem.

International Journal of Social Psychiatry, 62(2), 201-202.

http://dx.doi.org/10.1177/0020764015621771

Hartzler, A. L., Tuzzio, L., Hsu, C., & Wagner, E. H. (2018, May/June). Roles and functions of community health workers in primary care. *Annals of Family Medicine, 16*(3). http://dx.doi.org/10.1370/afm.2208

Johnson, D. E. (1990). The behavioral system model for nursing. In M. E. Parker (Ed.), *Nursing theories in practice* (pp. 23-32). New York, NY: National League for Nursing.

Knight, M., Bolton, P., & Kopeski, L. (2017). Providing physical care to persons with serious mental illness: Attitudes, confidence, barriers, and psychological empowerment. *Archives of Psychiatric Nursing, 31*, 447-453. http://dx.doi.org/10.1016/j.apnu.2017.07.001

Kristiansen, C. B., Juel, A., Hansen, M. V., Hansen, A. M., Kilian, R., & Hjorth, P. (2015). Promoting physical health in severe mental illness: Patient and staff perspective. *Acta Psychiatrica Scandinavica, 132*, 470-478. http://dx.doi.org/10.1111/acps.12520

Mental Health Foundation. (2018). *Physical And Mental Health*. Retrieved from https://www.mentalhealth.org.uk/a-to-z/p/physical-health-and-mental-health

Morden, N. E., Mistler, L. A., Weeks, W. B., & Bartels, S. J. (2009, March-April). Health care for patients with serious mental illness: Family medicine's role. JABFM *Journal of the American Board of Family Medicine, 22*(2), 187-195. http://dx.doi.org/10.3122/jabfm.2009.02.080059

Mouko, J., & Sullivan, R. (2017). Systems for physical health care for mental health

    patients in the community: Different approaches to improve patient care and

    safety in an early intervention in psychosis service. *BMJ Quality, 6*, 1-6.

    http://dx.doi.org/10.1136/bmjquality.u209141.w3798

National Institute of Mental Health (NIMH). (2017). *Mental Illness*. Retrieved from

    https://www.nimh.nih.gov/health/statistics/mental-illness.shtml

National Institute of Mental Health (NIMH). (2018). *Depression*. Retrieved from

    https://www.nimh.nih.gov/health/topics/depression/index.shtml

Olfson, M., Gerhard, T., Huang, C., Crystal, S., & Stroup, S. (2015, October 28).

    Premature mortality among adults with schizophrenia in the United States. *JAMA*

    Psychiatry, 72(12), 1172-1181.

    http://dx.doi.org/10.1001/jamapsychiatry.2015.1737

Padmavati, R. (2016, April). Metabolic syndrome, serious mental illnesses & lifestyle.

    Indian Journal of Medical Research, 143, 395-397.

    http://dx.doi.org/10.4103/0971-5916.184280

Petiprin, A. (2016). *Health Behavioral Theory*. Retrieved from http://www.nursing-

    theory.org/theories-and-models/johnson-behavior-system-model.php

Pickens, C. M., Pierannunzi, C., Garvin, W., & Town, M. (2018). *Surveillance for*

    Certain Health Behaviors and Conditions Among States and Selected Local

    Areas? Behavioral Risk Factor Surveillance System, United States, 2015.

    Retrieved from

    https://www.cdc.gov/mmwr/volumes/67/ss/ss6709a1.htm?s_cid=ss6709a1_x

Policicchio, J. M., & Dontje, K. (2017). Diabetes training for community health workers

      on an American Indian reservation. *Public Health Nursing, 35*, 40-47.

      http://dx.doi.org/10.1111/phn.12370

Raingruber, B. (2014). *Contemporary Health Promotion in Nursing Practice*. Burlington,

      MA: Jones & Bartlett Learning.

Robson, D., & Haddad, M. (2012). Mental health nurses' attitude towards the physical

      health care of people with severe and enduring mental illness: The development

      of a measurement tool. *International Journal of Nursing Studies, 49*, 72-83.

      http://dx.doi.org/10.1016/j.ijnurstu.2011.07.011

Robson, D., Haddad, M., Gray, R., & Gournay, K. (2013). Mental health nursing and

      physical health care: A cross-sectional study of nurses' attitudes, practice, and

      perceived training needs for the physical health care of people with severe mental

      illness. *International Journal of Mental Health Nursing, 22*, 409-417.

      http://dx.doi.org/10.1111/j.1447-0349.2012.00883.x

Rosenstock, I. M. (1974). The health belief model and preventive health behavior. *Health*

      Education Monographs, 2(4), 354-386.

      http://dx.doi.org/10.1177/109019817400200405

Ross, L. E., Vigod, S., Wishart, J., Waese, M., Spence, J. D., Oliver, J., ... Shields, R.

      (2015, October 13). Barriers and facilitators to primary care for people with

      mental health and/or substance use issues: A qualitative study. *BioMed Central*

      Family Practice, 16. http://dx.doi.org/10.1186/s12875-015-0353-3

Russell, L. (2010). *Mental Health Care Services in Primary Care*. Retrieved from

   https://www.americanprogress.org/issues/healthcare/reports/2010/10/04/8466/me

   ntal-health-care-services-in-primary-care/

Scharf, D. M., Eberhart, N. K., Hackbarth, N. S., Horvitz-Lennon, M., Beckman, R. L.,

   Han, B., ... Burnam, M. A. (2014). *Improving the Physical Health of Adults With*

   Serious Mental Illness With Serious Mental Illness. Retrieved from

   https://www.rand.org/pubs/research_briefs/RB9789.html

Substance Abuse and Mental Health Services Administration (SAMHSA). (n.d.). *A*

   Behavioral Health Lens for Prevention. Retrieved from

   https://www.samhsa.gov/capt/sites/default/files/resources/behavioral-health-

   factsheet.pdf

Substance Abuse and Mental Health Services Administration (SAMHSA). (2012).

   Understanding Health Reform Integrated Care and Why You Should Care.

   Retrieved from https://www.integration.samhsa.gov/integrated-care-models/2012-

   07-23UnderstandingHealthReform.pdf

Substance Abuse and Mental Health Services Administration (SAMHSA). (2016).

   Creating a Healthier Life: A Step-By-Step Guide to Wellness. Retrieved from

   https://store.samhsa.gov/system/files/sma16-4958.pdf

Substance Abuse and Mental Health Services Administration (SAMHSA). (2017a). *The*

   Eight Dimensions of Wellness. Retrieved from https://www.samhsa.gov/wellness-

   initiative/eight-dimensions-wellness

Substance Abuse and Mental Health Services Administration (SAMHSA). (2017b).

   Wellness: Overview. Retrieved from https://www.samhsa.gov/wellness

U. S. Department of Health and Human Services. (2014). *Access to Health Services*.

   Retrieved from https://www.healthypeople.gov/2020/topics-

   objectives/topic/Access-to-Health-Services

Vanderlip, E. R., Raney, L. E., & Druss, B. G. (2016, July). A framework for extending

   psychiatrists? Roles in treating general health conditions. *American Journal of*

   Psychiatry, 173(7), 658-663. http://dx.doi.org/10.1176/appi.ajp.2015.15070950

Vreeland, B., Minsky, S., Gara, M. A., & Toto, A. M. (2010). Solutions for wellness:

   Results of a manualized psychoeducational program for adults with psychiatric

   disorders. *American Journal of Psychiatric Rehabilitation, 13*, 55-72.

   http://dx.doi.org/10.1080/15487761003673032

Weaver, A., & Lapidos, A. (2018, February). Mental health interventions with

   community health workers in the United States: A systematic review. *Journal of*

   Health Care for the Poor and Underserved, 29(1), 159-180. Retrieved from

   http://www.michwa.org/wp-

   content/uploads/WeaverLapidos2018CHWsMentalHealthInterventions.pdf

Wynaden, D., Heslop, B., Heslop, K., Barr, L., Lim, E., Chee, G., ... Murdock, J. (2016).

   The chasm of care: Where does the mental health nursing responsibility lie for the

   physical health care of people with severe mental illness? *International Journal of*

   Mental Health Nursing, 25, 516-525. http://dx.doi.org/10.1111/inm.12242

Xiong, G. L., Iosif, A., Suo, S., McCarron, R. M., Koike, A., Onate, J., & Carter, C. S.

   (2015). Understanding preventative health screening services use in persons with

   serious mental illness: How does integrated behavioral health primary care

compare. *International Journal of Psychiatry in Medicine, 48*(4), 279-298.

http://dx.doi.org/10.2190/PM.48.4.d