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Examining Provider Perspectives on Implementation of an Integrated Primary and Behavioral Health Care Model in the Outpatient Setting: A Qualitative Study

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Final DNP Project Report

Examining Provider Perspectives on Implementation of an Integrated Primary and Behavioral
Health Care Model in the Outpatient Setting: A Qualitative Study

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July 13th, 2015

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Dedication

For my Dad, who always encouraged my love of learning.

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Capstone Report Introduction

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Introduction

The rate of documented mental illness in the United States continues to climb each year, with the Centers for Disease Control (CDC, 2014) projecting that nearly half of adults will develop at least one mental illness during their lifetime. In addition to becoming more widespread, mental illness is also associated with multiple comorbidities, including cardiovascular disease, diabetes, obesity, asthma, epilepsy, cancer, gastrointestinal disorders, skin infections, hepatic disorders, substance abuse, and acute respiratory diseases (CDC, 2014; Bartels, 2004), most of which are preventable and treatable (Happell, 2012). Despite being one of the most vulnerable populations in terms of receiving healthcare, those with a mental illness underutilize available medical care, have a reduced adherence to treatment, higher risks of adverse health outcomes, and a higher morbidity and mortality rate compared to the general population (CDC, 2014; Bartels, 2004). While the need for increased access to services for this population is well documented, strategies for improvements to this system have yet to come to fruition in the practice setting. For successful practice change, there must be support from stakeholders who deliver direct care to this population-the providers.

This capstone report contains three manuscripts that investigate the establishment of provider perspectives on an integrated primary and behavioral health care model in the outpatient setting. The first manuscript is a literature review of 12 articles investigating the barriers to accessing medical care for patients with severe mental illness (SMI) and medical comorbidities. Three main themes surfaced from the research, including system and financial access, patient lifestyle and adherence, and provider specific barriers affecting quality of care. Although there were many barriers to accessing medical care for patients with SMI, recommendations for future

practice included baseline screening, identifying risk factors, performing a risk assessment, improving communication, providing education, co-locating services, and empowering patients.

The results from this literature review provided a foundation for a qualitative study that examined provider perspectives in the implementation of an integrated primary and behavioral health model in the outpatient setting. This second manuscript describes the results of semi-structured interviews with seven advanced practice registered nurses (APRN) in Kentucky with backgrounds in both primary care and behavioral health. These APRN's recommend further research regarding ways to facilitate a shift towards an integrated care model to better serve this population.

The final manuscript is a proposal for a comorbidity-screening program to be set up at the Hope Center in Lexington, KY, which already provides multiple services for the homeless and mentally ill population. This report concludes by recommending implementation of a similar program in order to provide information and evidence needed for revision of practice guidelines and an improvement in the quality of care provided for this population.

Evaluating Barriers to Accessing Medical Care Among People with Severe Mental Illness and
Medical Comorbidities: A Literature Review

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Abstract

AIM The purpose of this literature review was to synthesize information in the existing literature on the barriers to accessing medical care among persons with SMI and medical comorbidities. In addition, this literature review identified gaps in current practice and provided suggestions for improvement. **METHODS** Studies published from 2002-2014 were reviewed and analyzed. Findings were compared and evaluated. Common themes were noted and described. Conclusions were drawn based on the evidence provided. **FINDINGS** Using the three key terms *barriers, severe mental illness, and comorbidities* returned 167 articles. Additional search terms including cost effectiveness, integrated care, finances, and mental health yielded 79 articles. These were reviewed and those most relevant were chosen as the 12 articles included in this review. **CONCLUSIONS** The evidence presented is unquestionably indicative of a need for practice change for both primary and mental health care. Review of the current literature and synthesis of the evidence provided an endorsement for improving future research, practice, and policy in this field.

Background

Severe mental illness (SMI) is an ever-growing epidemic both nationally and internationally, with rates expected to double in older adults by the year 2030 (Bartels, 2004). Increased morbidity and mortality is associated with having an SMI among the adult population, with an estimated 20% shorter lifespan than the general population (Bartels, 2004). Persons with mental illness are likely to die approximately 20-25 years earlier than the general population, mostly due to treatable medical comorbidities (Happell, Scott, Platania-Phung, & Nankivell, 2012). Medical illness is not discriminatory in clients who simultaneously suffer from SMI. Almost half (48%) of middle-aged persons with a diagnosis of schizophrenia have at least one co-occurring medical illness, and up to 20% of this population have more than one comorbidity; the most common diagnoses include diabetes, cardiovascular disease, respiratory, renal, and liver diseases (Bartels, 2004).

High rates of medical comorbidities in the SMI population have been attributed to a wide variety of treatment and patient-related factors. Many psychotropic medications cause diabetes and have been associated with the development of cardiovascular disease (Bartels, 2004). Bartels (2004) notes that pharmacologic treatment of these disorders can be harmful by inciting “hyperlipidemia, weight gain, glucose intolerance, and increased prevalence of diabetes” (p. S251). In addition, untreated SMI is associated with destructive health behaviors such as smoking and substance abuse.

It is well known that there is a strong connection between SMI and co-existing medical illness (Bartels, 2004; Prince et al., 2007). The gap lies in the lack of treatment of both of these disorders concurrently; the majority of treatment for medical and mental illnesses are separated into the primary care and mental health service delivery systems (Prince et al., 2007). It is likely

the burden of mental illness is underestimated due to the lack of appreciation of the linkage between mental and medical illness (Prince, et al., 2007). Mental health disorders increase risks of other serious medical illnesses, such as communicable and non-communicable diseases. Human Immunodeficiency Virus, tuberculosis, injuries, and inability to manage chronic diseases are among the most common illnesses (Prince, et al., 2007). Conversely, those with medical illness are at an increased risk for mental health disorders (Prince, et al, 2007). Our current health care system is not designed to provide adequate care for these complex illnesses concurrently. Because of this deficiency, the quality of care for individuals with co-occurring mental and medical illness is inadequate.

Clearly, there is a disconnect between treatment of SMI and overall general health and wellness and the gap in care is widening, with morbidity and mortality rates steadily increasing over time. Because of this ever-growing problem, it is essential that healthcare providers recognize barriers to accessing medical care among the severely mentally ill population, for the purpose of designing innovative treatment delivery approaches to improve access to care for those with SMI.

Aim

The purpose of this literature review is to synthesize information from the available literature on the barriers to accessing medical care among persons with SMI and medical comorbidities. In addition, this literature review aims to identify problems in the current practice of isolating treatment of medical and mental illness and provide suggestions for improvement. The research question that guided this review was, “What are the barriers to accessing medical care among persons with SMI and medical comorbidities?”

Methods

This literature review began with a search that focused on barriers to accessing medical care among persons with SMI. The focus was on those studies or reviews that provided suggestions for improvement for future practice. An electronic search of published articles highlighting barriers to accessing/receiving medical care among persons with SMI was conducted using EBSCO Host with an interdisciplinary database assortment. Databases included Academic Search Premier, Cumulative Index to Nursing and Allied Health Literature (CINAHL) with full text, Health Source Consumer Edition, MasterFILE Premier, MEDLINE, Psychology and Behavioral Sciences Collection, PsychINFO, Sociological Collection, and PubMed. The search was limited to full text, peer-reviewed research articles published in English. Search terms used included *barriers, medical care, medical treatment, primary care, psychiatry, mental health, severe mental illness, SMI, comorbidity, finances, cost effectiveness, and comorbidities*. Limits were set to only include those articles published within the last twelve years, 2002-2014.

Inclusion criteria included those articles with highest relevancy to the review. Articles were included in the review if they discussed barriers to accessing medical care among persons with SMI. Studies were excluded if they did not include subjects that categorized as severely mentally ill, had a focus on only one specific comorbid medical illness or one specific mental illness, such as anxiety or depression due to the fact that this did not illustrate the complex health needs of this population.

Findings

Using the three key terms *barriers, severe mental illness, and comorbidities* returned 167 articles. By rearranging the other keywords listed above and reviewing relevant results, the final collection yielded 32 articles. These were reviewed and those most applicable based on

inclusion and exclusion criteria were chosen as the 13 articles to be included in this review of the literature. Of these 13 articles, seven were literature reviews, two were qualitative studies, one was a cross-sectional study, one was an educational module, one was a randomized trial, and one was a review of a case study.

Themes

There were three predominant themes that emerged from analysis of the literature that impact barriers associated with accessing medical care. These included system and financial access, patient lifestyle and adherence, and provider barriers affecting quality of care. These three themes provide meaningful knowledge that will assist in guiding further research and practice in this area.

System and Financial Access

As discussed previously, persons with co-occurring medical and mental illness often do not receive their care simultaneously due to the separation of these specialties into different treatment settings. Because receiving holistic care is so divided across the healthcare system, persons with SMI often receive minimal care for medical comorbidities and mental health care. (Wang, Demler, and Kessler, 2002; Gold and Kilbourne, 2008; Gill et al., 2009). In one study, Wang, Demler, and Kessler (2002) found that only 15.3% of those with an SMI received minimally adequate medical treatment (p. 92). In some cases, persons with SMI will only receive health care through their mental health provider (De Hert et al., 2011). Some clinicians suggest that routine physical health checks should be completed as part of a mental health visit, including services such as smoking cessation, monitoring of BMI, blood pressure, diet/nutrition, activity level, substance use, fasting blood glucose and lipids, and prolactin levels. Other recommendations included screening, including cardiovascular risk assessment (including

electrocardiograph), dental health screenings, liver function tests, thyroid hormones, and electrolyte monitoring (De Hert et al., 2011; Bartels, 2004; Lawrence and Kisely, 2010). While some of these biometrics are measured as routine monitoring in a mental health setting, some authors point out it is not a common practice for a complete physical exam to be completed by a mental health provider. In many cases, mental health providers lack the funding, resources, and training necessary to complete the recommended components of a physical exam during a mental health visit (Lawrence and Kisely, 2010). De Hert, et al. (2011) made multiple recommendations for system level improvement to address gaps in treating medical comorbidities in persons with SMI, including designating persons with SMI as a health disparity population, educating and training the healthcare community, improving access to medical care, reducing stigma and discrimination, developing policies to coordinate and integrate care, and addressing the funding issues related to these various improvements (p. 146). In order to bridge the gap between these services, integrated care models have been proposed that utilize the concept of consultation-liaison, shared care, and co-location of services (Lawrence & Kisely, 2010). Lawrence and Kisely (2010) reviewed and discussed some small-scale trials of integrated care models that have been piloted that utilize the aforementioned principles. The authors reviewed studies that utilized co-location as well as the use of care managers that assisted with linking patients with SMI to a primary care provider. However, the most successful trial that the authors reviewed was an integrated care model that involved co-location, shared care, and consultation-liaison services. This trial was conducted in Australia and is known as the Consultation and Liaison in Primary Care Psychiatry (CLIPP) project (Lawrence and Kisely, 2010). This trial involved the role of primary care physicians treating persons with SMI (in an inpatient or intensive outpatient setting) as well as shared care with mental health providers in transition to discharge into the

community (Lawrence and Kisely, 2010). The most outstanding finding was the recommendation of establishing “super-clinics” (p. 63) and an opportunity to develop “one stop shops” (p.63) in order to promote access and early intervention for both medical and mental health care within this population (Lawrence and Kisely, 2010). However, morbidity and mortality could not be assessed because of the lack of long-term studies that utilized these concepts.

The lack of coordinated care and resources in the primary care setting for persons with SMI increases their use of acute and/or emergency services (Bartels, 2004), which end up costing the healthcare system more money because of lack of preventative measures. Emergency rooms have been used similarly to primary care offices, for non-emergent or routine medical care that could be treated at a lower level of care (Lawrence & Kisely 2010; Kaufman, McDonell, Cristofalo, & Ries, 2012). Although the coordination of care is more complex when simultaneously treating both medical and mental health problems, there may be long-term financial savings for the health care system as opposed to continuing with the current practice of fragmented care (Lawrence & Kisely, 2010).

Lifestyle and Adherence

Persons with SMI often also engage in high-risk lifestyle behaviors that have negative effects on their overall health and wellness. These include smoking, alcohol and substance abuse, poor diet, lack of exercise, and risky sexual behaviors (Bartels, 2004; Gold & Kilbourne, 2008). Apart from risk factors for comorbid medical illness as it relates to the treatment modalities for persons with SMI, these lifestyle factors also contribute to the prevalence and severity of these comorbid medical illnesses as well. For example, high rates of smoking among persons with SMI leads to increased risks to develop COPD,

asthma, and other respiratory illness. Also, the rate of substance abuse, including alcoholism, along with high-risk sexual behaviors and subsequent STDs are a concern in this population. Kaufman, McDonell, Cristofalo, and Ries (2012) note the most prevalent patient-specific barriers to treatment are associated with reduced cognitive functioning, psychopathology and paranoia, chemical dependence, lack of motivation, misperceptions and treatment resistance. Lifestyle instability, mistrust of others, lower socioeconomic status, and awareness of the need for personal responsibility of improving their health were also noted as significant barriers (p. 175). These patient-specific barriers and lifestyle factors are largely modifiable and even preventable with appropriate comorbidity screening and treatment in the primary care setting.

Noncompliance with treatment and adherence are also barriers to accessing adequate medical care in persons with SMI. Cognitive deficits associated with SMI make it difficult to educate this population about complex subjects, such as diabetes or heart disease, due to lack of awareness of physical problems as well as difficulty following health care advice or carrying out lifestyle changes (De Hert et al., 2011). Teaching about comorbid illness may take an increased amount of time during clinic visits and even if this is carried out successfully, there may still be an issue with lack of resources required to maintain the treatment plan (De Hert et al., 2011). Sadly, the economic burden of mental disorders in America is already estimated to be above \$79 billion (Ngui, Khasakhala, Ndeitei, & Weiss Roberts, 2010). Adherence and compliance with treatment are dependent on financial resources for medications and other treatments, housing, education level, and social support (Kaufman, McDonell, Cristofalo, & Ries, 2012). Persons with SMI who are living with limited financial resources may be spending their income on necessities for

survival, such as food or housing. There is a high correlation between homelessness and having SMI. The percentage of the homeless population living with SMI is 26%, four times the rate of SMI in the general population (Diaz et al., 2008).

Quality of Care

Persons with SMI who do seek out and receive medical care for comorbid illnesses have historically received poor quality of care, according to recent literature (Happell, Scott, & Platania-Phung, 2012 and Kaufman, McDonell, Cristofalo, & Ries, 2012). Common issues related to receiving quality medical care have included time constraints, lack of resources, stigma, lack of experience/comfort level of provider with patients with SMI, and patient satisfaction (Happell, Scott, & Platania-Phung, 2012 and Kaufman, McDonell, Cristofalo, & Ries, 2012).

Providers in a primary care setting often do not have the additional time to spend with persons with SMI, to provide reassurance and education about the treatment plan. In primary care offices with a large caseload, short appointment slots, and a shortage of providers, persons with SMI may not be receiving the best quality of care possible due to lack of resources available (Happell, Scott, & Platania-Phung, 2012; De Hert et al., 2011; Kaufman, McDonell, Crisofalo, & Ries, 2012). Providers also may be stigmatizing this population, with more attention placed on the mental illness rather than the presenting medical problem, a term that Happell, Scott, & Platania-Phung (2012) refer to as “diagnostic over-shadowing” (p. 759). This phenomenon led to physical health problems being ignored, and less likely to be identified and addressed appropriately (Happell, Scott, & Platania-Phung, 2012).

De Hert et al. (2011) recommends that healthcare providers take action on an individual level in order to address this gap in care. De Hert et. al. (2011) recommend screening the patient and family at baseline to identify high-risk patients and ensure early detection, utilizing an algorithm or risk chart during screenings, considering medication changes if metabolic issues arise, communicating physical exam findings to specialist services as needed, including education about lifestyle modifications, and supporting the overall wellness and empowerment of patients with SMI (p. 146). Druss, et al. (2010) utilized components of the aforementioned suggestions and recommendations for future practice in a randomized trial. In this study, a population-based medical care management intervention was tested in order to improve the primary medical care of patients in community mental health settings (Druss et al., 2010). The intervention group was assigned care managers who provided communication and advocacy with other medical providers, health education for patients, and assistance in overcoming system-level fragmentation such as barriers to accessing primary medical care (Druss et al., 2010). As a result of these treatment modalities, the intervention group received almost double the amount of recommended preventative services (58.7% vs. 21.8% of the control group) as well as a significantly higher number of evidence-based services for cardio-metabolic conditions (34.9% vs. 27.7% of the control group) (Druss, et al., 2010).

Discussion

The common themes that have emerged from this literature review are greatly beneficial to the future of research in this area because of their implications for improving future practice. By recognizing the barriers to accessing medical care in persons with SMI, improved practice models and more focused research on this topic can be accomplished. In order to make practice

improvements, information needs to be disseminated to providers, patients, and researchers so that there can be a greater understanding on the barriers to receiving medical care in this population. To make changes in practice, the issue has to be well understood and evaluated to appropriately tailor interventions that meet the medical needs of persons with SMI.

Suggestions for Future Practice

It is evident that the merging of mental health and primary care services is needed in order to best serve persons with SMI. However, barriers to accessing medical care must be overcome by providing interventions that educate, empower, and support those with an SMI. In order to overcome these barriers, improved access to healthcare, increased resources, and improved quality of care must be addressed.

System and financial barriers. One way these issues may be addressed is by integrating mental health and primary care services. Persons with SMI lack resources in comparison to the general population and providing care that is easily accessible, affordable, and maintainable is extremely important. Suggestions in the literature that address these issues include providing mobile outreach services (Happell, Scott, Platania-Phung, & Nankivell, 2012) and co-locating mental health and primary care practices, which has reduced health disparities and improved outcomes and increased patient satisfaction (Gill, Murphy, Zechner, Swarbrick, & Spagnolo, 2009). Mobile outreach services can target the portion of the population that has difficulty with transportation in terms of accessing care. These persons may come up against geographical barriers because they are not able to travel to the clinic site to receive adequate screening and treatment for preventable diseases. Mobile outreach services can incorporate an outreach bus that would include medical personnel traveling to a central location to serve the mentally ill population with mental health care as well as primary medical treatment and

screening for preventable comorbidities (Happell, Scott, Platania-Phung, & Nankivell, 2012).

By providing additional resources such as these that improve access to care, the overall quality of care for the severely mentally ill population has the potential to drastically improve.

Patient barriers. As aforementioned, there are multiple patient specific barriers to receiving quality care in the outpatient setting. These include cognitive deficits, lifestyle factors, and substance abuse. Further research is required in order to guide approaches to improving health education and access to health care in this population. Health education needs to be tailored to meet the needs of this population. Without adjustments to how providers are providing education persons with SMI on management of their symptoms and other illness related issues, this population will not receive quality care. Education and self management of SMI will need to accommodate cognitive deficits and memory impairments.

Provider barriers. Stigma and provider comfort level in treating this population can be improved by offering additional educational resources and training modules for providers in both mental health and primary care roles. There is very little evidence-based research in the literature regarding this subject other than displaying the need for further education for providers across each discipline. Pilot studies would need to be conducted on the efficacy of these programs or training modules in both primary care and mental health. These could be offered in the form of continuing education credits. See Table 1 for a comprehensive list of recommendations for future practice.

Conclusions

With the current rising prevalence of comorbid medical illness among mental health consumers, a drastic change must be made in order to improve the quality of care being delivered to this population. By determining barriers to accessing care for comorbid medical illness for

persons with SMI, further strides can be made in solidifying an evidence-based foundation for practice change. Battams and Henderson (2010) state, “many determinants of health negatively impact upon the ‘right to health’ of people with mental illness, including the violation of human rights and access to and quality of physical and mental health treatment services” (p. 126).

Persons with SMI must be advocated for and healthcare providers must strive for equality of care. Reviewing the current literature and synthesizing the evidence can provide an endorsement for improving future research, practice, and policy in this field.

Table 1

Recommendations for Future Practice

- Screening at baseline
- Identify risk factors
- Early detection of comorbid disorders
- Risk Assessment tools
- Consider medication changes due to metabolic profile
- Improve communication with other providers and/or specialists
- Educate about lifestyle modification
- Support overall health and wellness
- Empower patients with SMI
- Co-location of services
- Mobile Outreach

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Examining Provider Perspectives on Implementation of an Integrated Primary and Behavioral

Health Care Model in the Outpatient Setting: A Qualitative Study

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Introduction

Mental illnesses (MI) affect millions of people worldwide, with 13 million in the United States alone (Gray, Hardy, & Anderson, 2009). The most frequently diagnosed MI in the US is depression, with anxiety and substance abuse ranking nearly as high (Centers for Disease Control and Prevention, 2014). MIs surpass both cancer and heart disease for the highest rate of disability in the world (World Health Organization, 2014). A diagnosis of MI is associated with several factors that decrease quality of life, such as stigma, health disparities, low employment and consequent lack of ability to obtain insurance, and limited access to physical and mental health care (Cassels, 2011; Stanley & Laugharne, 2011).

People diagnosed with serious mental illness (SMI) have faced stigma for a number of years, due to lack of knowledge or training on how to treat this patient population, likeability, and insufficient amount of time to spend both physical and mental healthcare for this patient population (Lawrence and Kisely, 2010). For these reasons, the Centers for Disease Control and Prevention have included mental health stigma in the Behavioral Risk Factor Surveillance System Survey (BRFSS). In 2007, the BRFSS revealed that only 57% of surveyed healthy adults believed that persons were caring and sympathetic towards persons with mental illness, and only 25% of adults with symptoms of mental illness shared this attitude (Centers for Disease Control and Prevention, 2014).

People diagnosed with MIs have higher rates of co-morbid medical illnesses compared to the general population, along with decreased life expectancy. Research estimates that the lifespan of people diagnosed with MIs is approximately 15 to 20 years shorter than the general population in more than one country (Cassels, 2011). Stanley and Laugharne (2011) reported that these poorer health outcomes could be attributed to

“psychotropic medication effects, lifestyle, existing or developing physical disorders, alcohol and illicit drug use, and psychosocial factors” (p. 828). The importance of monitoring physical comorbidities in the SMI population has been documented in the literature since the 1990s (Hardy, White, Deane, & Gray, 2011); however, mental illness continues to be under diagnosed and undertreated in almost 50% of primary care settings (Schmitz & Kruse, 2002). There has been continual debate about the degree to which psychiatric practitioners should assume responsibility for the assessment and diagnosis of comorbid medical disorders in mentally ill patients, largely because the majority of the mentally ill population does not have regular interaction with a primary care provider (Stanley & Laugharne, 2011). Integration of primary care and behavioral health into a single treatment delivery system can provide an easier option for providing comprehensive care to adult patients in need of both types of services, particularly if services are offered during one service encounter. Options for integration can include timely referral to needed services or an in-office consultation service. Regardless of the specific approach, high-quality, coordinated care can be provided when providers work together to provide holistic integrated care.

In order to best serve this population, both primary care and mental health providers must be knowledgeable about medical and psychiatric illnesses that are commonly diagnosed in this population; furthermore, the ability to provide treatment referral and advocacy for people with comorbid mental and medical illnesses is essential. Lack of knowledge, stigma, inaccurate perceptions and negative attitudes toward mental illness have interfered with primary care providers’ ability to provide adequate care for the mentally ill population. It is important to assess provider perceptions on these issues because of their role as leaders in the delivery of

evidence-based healthcare. Challenges of integration of care identified in previous studies included inadequate reimbursement, perceived loss of autonomy, discomfort in caring for patients outside of their specialty,, and differing beliefs about quality care (Bourgeois, Hilty, Servis, & Hales, 2005; Pomerantz, Corson, & Detzer, 2009).

If integration or collaborative care becomes the ‘new normal’ in the future, there will be many changes to the current practice model of providing treatment separately in two different practice settings. This change is one that many providers may be hesitant to make. Radical change in practice has not historically been an easy process, especially in healthcare. An essential preliminary step in improving care delivery and quality is to understand provider perceptions about integration of medical and psychiatric services. If providers are not willing to make a modification in practice, regardless of whether they practice in primary care or behavioral health, efforts to improve the quality of care will not be successful. The process of care integration can be greatly enhanced by identifying provider perceptions about integration of care, including views on current practice, barriers to implementing integrated care, and recommendations for future practice.

The purpose of this qualitative descriptive research study was to identify and describe primary and mental health provider perspectives, including attitudes and knowledge related to integration of primary and behavioral health care in the outpatient setting. One objective of this project was to gather information from providers in both primary and behavioral health settings to ascertain how they perceive the idea of integrated care. Another objective of this project was to gather information about provider perception of current practice protocols for treatment of patients with comorbid physical and mental health issues, perceived facilitators and barriers to integrated care, and recommendations for future integration of care.

Methods

A qualitative descriptive study was conducted to examine the perceptions of both primary care and behavioral health providers on the implementation of an integrated care model in the outpatient setting. The qualitative descriptive methodology is appropriate for this study because the interpretation involved was what as Sandelowski (2000) refers to as “low-inference” (p. 335), meaning that the data presented displays the facts that surfaced as a result of the study. Despite being “low-inference”, qualitative descriptive studies are still interpretive (Sandelowski, 2009). The summary of observed data utilized in this study reflects the primary investigator’s choice of what to describe, however the events were accurately portrayed and have descriptive validity (Sandelowski, 2000). The process of data collection for this study involved performing semi-structured interviews and documenting the observations that occurred during these encounters. This study falls into the category of qualitative descriptive because it offers a comprehensive summary of the events within the study (Sandelowski, 2000). Concepts of descriptive and interpretive validity were addressed by contacting research participants and seeking agreement on shared facts and viewpoints that were discovered in the data collection and interpretation by the researcher (Sandelowski, 2000). Perceptions on current practice protocols for patients with comorbid physical or mental health issues, perceived facilitators and barriers to integrated care, and recommendations for future integration of care were examined.

Sample

The sample consisted of seven nurse practitioners (NPs) that practice in the state of Kentucky as either primary care (PC) providers or Psychiatric-Mental Health (PMH) providers. Participants were recruited in an email to all members of the Kentucky Coalition of Nurse Practitioners and Nurse Midwives (Appendix 1). Five PMH NPs and two PC NPs participated in

this study. Inclusion criteria were being 24 years of age or older, able to read and speak English, a licensed nurse practitioner with a minimum of one year of experience, and being willing to participate in audio-taped interviews. All participants provided informed consent prior to data collection. The Medical Institutional Review Board at the University of Kentucky approved all study procedures. Procedures to ensure participant confidentiality were followed throughout this study.

Data Collection

Semi-structured interviews (Questions: Appendix A) were conducted with the seven participants to determine their perspectives on barriers and facilitators to implementation of an integrated primary and behavioral health care model in an outpatient setting. The principal investigator (PI) conducted the interviews. These interviews, lasting 45-60 minutes, occurred at various locations in Kentucky and were audiotaped and transcribed for the purposes of data analysis.

Traditional strategies outlined by Miles and Huberman (1994) were used to analyze and interpret the data. Data analysis consisted of three interconnected stages, including data reduction or condensation, data display, and conclusion drawing and verification (Miles and Huberman, 1994). Following completion of interviews, data reduction or condensation was completed by compiling data from the narrative of the transcribed interviews with participants and identifying preliminary themes. Data were then color-coded by theme and displayed in a matrix (Appendix B) with the narrative reports linked to each preliminary theme. Themes were further developed as supplementary data were collected and the elements and characteristics of each theme were identified. The conclusion and verification stage consisted of summarizing the

fundamental themes to illustrate the participants' perspectives on implementation of an integrated primary and behavioral health care model in the outpatient setting.

Data Trustworthiness

Several approaches recommended by Lincoln and Guba (1985) were used to ensure data trustworthiness and to support credibility of the study findings. Credibility, transferability, dependability, and confirmability were all addressed in this study. Credibility was established by performing member checks. Member checks with study participants were conducted via email. A summary of study findings, including themes and copies of transcribed interviews, were provided to a select number of participants, and they were asked to comment on the accuracy of the study findings via email. This provided opportunities for summarizing preliminary findings, assessing adequacy of data, understanding participants' intentions, and correcting errors. Transferability was established by thick description. A detailed description of the data collection and analysis in multiple settings was described in this study to allow readers to compare the described phenomenon with their own experiences. Dependability and confirmability was achieved by performing an inquiry audit and an audit trail. The investigator examined the process by which the data was collected and analyzed. Also, the investigator examined the records to review for accuracy. Emails were sent to study participants in order to confirm authenticity of data collection and findings, including summary of field notes and transcriptions of transcribed data.

Findings

Participant interviews yielded information about what PC and PMH NPs perceive to be barriers and facilitators to implementation of an integrated health care model in an outpatient setting. Overall, participants identified the need for a change in the current practice model of

fragmented services provided in separate treatment delivery systems, and identified several factors that facilitate implementation of an integrated care model. Perceived facilitators included high rates of comorbidities, collaboration, education, and location. However, participants also acknowledged several hindrances to implementation of an integrated care model. Perceived barriers included finances, patient characteristics, and scope of practice.

Comorbidities

Participants in this study spoke at length regarding the presence of comorbidities within their patient population. Strikingly, participants unanimously estimated that at least 50 percent of their clients had been diagnosed with a comorbid illness outside of their presenting problem, and the majority of participants estimated that between 70-90% had comorbid illnesses. For example, participants overwhelmingly discussed sleep apnea as a common underlying illness in both primary care and mental health. One participant noted, “You get these people who are depressed, overweight, diabetic, have high blood pressure and can’t sleep and none of the antidepressants work for them...well, in my experience, a great many of them end up having sleep apnea.” Other common comorbid disorders included chronic pain, diabetes, hypertension, gastro esophageal reflux disease, attention deficit hyperactivity disorder, bipolar disorder, depression, traumatic brain injury, and substance abuse. Participants also discussed the increase in the prevalence of comorbid disorders presenting in both primary and behavioral health outpatient offices. One participant noted, “You can’t throw a stick in the wind and not hit 15 people with some mental health diagnosis whether it be depression, anxiety, or up to bipolar...it’s becoming part of the profile of the common patient now.” Additional comments from participants included:

You've overwhelmingly got to address the mental health because the mental health is driving the medical.

In the community setting is where your most impoverished clients are with the most comorbidity for medical problems. They are also least likely to have insurance or money to do anything about it and so they're really more complex on every level; they're sicker from a psychiatric standpoint and sicker from a medical standpoint.

Almost 100% of anybody over the age of 18 has something they're medicated for.

I would say that 80 percent of primary care visits are really mental health but are presenting as somatic complaints.

Participants also noted the difficulty in caring for these complex patients due to the involvement of multiple providers treating multiple disease processes. Participants discussed the frustration of other providers discontinuing or changing medications without consulting other providers or considering repercussions related to altering the patient's treatment plan.

Collaboration

Participants identified collaboration between providers as an essential facilitator in implementation of an integrated health model. Collaboration provides both PC and PMH providers with an opportunity to deliver a higher quality care by offering support and valuable resources that greatly benefit the patient. A component of collaboration that participants stated was essential to successful outcomes was communication. One participant indicated, "It just all goes back to communication and it [collaboration] would work a lot better." Another participant spoke about the ease of communicating with their collaborating physician and hoped to expand upon that idea throughout the entire treatment system. "It's a collegial kind of thing and I wish that we could figure out how to do that in a broader system."

Another component to collaboration identified by participants was the referral process between providers. Participants stated they would "absolutely love a consultation liaison

service” and have been asking their places of employment to grow mental health services because “we need them so desperately” and that it would greatly benefit their patient populations.

What I see as probably even more valuable to that model is curbside-“hey can I ask you something real quick about – did you notice this patient is still complaining about her lymph nodes and she’s really fatigued...have you thought about a mono screen?”

Care transitions were particularly concerning to participants; for example, One participant spoke about the loss of comprehensive services when transitioning care from the hospital or inpatient setting to outpatient services:

When you have a patient in the hospital and they have mental health issues, the whole thing is a team approach to healthcare. And so, you have your social worker, your nurse, your doctor, your nurse practitioner, your speech therapist, your occupational therapist, and they’re doing rounds and they’re talking about what is going on and everybody is on board with the treatment plan. And then we pull you out to primary care and you’re there all by yourself. And you may have this, this, and this going on but they’re all across town and they’re in this town and that town and they’re not here.

Participants also described need for integration of services within the context of collaboration, particularly related to access to medical records. Participants discussed the advantages of having complete patient histories as well as being able to merge electronic medical records so providers could most easily access the entire patient chart. “It would be helpful to have data that’s already preloaded when you see the patient...it would be extremely helpful.” Participants also discussed the benefit of having access to recent laboratory results and an updated medication list. “In a country that has billions, zillions of dollars invested into technology and the fact that we can’t get all of our medical are regulated into one system...just

boggles the mind.” Overall, participants believed that collaboration was a vital component to facilitating the implementation of an integrated care model. “You have to be open to that they [primary care and behavioral health] need to be integrated and they both impact each other; if you treat one in isolation from the other, you’re not really gaining a good outcome.”

Education

Several participants believed that education plays an important role in facilitating both collaboration and implementation of an integrated care model in the outpatient setting. Participants noted that education is important for facilitation on multiple levels, including from provider to patient, between providers, and between disciplines. Participants also believed that from a provider standpoint, it is valuable to be educated about disease processes outside of one’s own discipline. One participant with a primary care background stated that education about topics such as motivational interviewing during brief interactions and change theory is vital to treating patients with a comorbid psychiatric diagnosis in the context of limited availability of resources.

Another participant believed that it is important to educate patients about exercise and healthy eating. “If you don’t talk to these people about health issues, eating more fruits and vegetables and less processed foods and fats, you’re spinning your wheels.” Because all participants were advanced practice registered nurses, all strongly identified with the nursing education role. One participant noted, “I do a lot of nursing education in this role and I really try to get them to think about their own self-care.” Another stated, “Nurses and nurse practitioners treat patient response to illness and physicians treat the illness.” However, one participant believed that over-educating patients about issues outside of one’s specialty could potentially diminish the patient’s responsibility in managing his/her own health:

I feel like the more that we offer that on the fringe, and then we're kind of letting them off the hook because they don't have to make an appointment to see their primary care doctor. You're kind of cutting that person out of the loop and I'll tell you the opposite doesn't feel good either because they come back to me and say, "Oh, my doctor stopped my Lexapro" and I'm like, really? I guess you don't need me then.

Participants also felt strongly that education was vital to collaboration between providers and disciplines. "I think ideally internal medicine folks would be willing to learn from us and vice versa; sharing knowledge and peer education would be enhanced." Participants expressed a variety of opinions about the optimal timing of pre-licensure education. Some participants believed that education was most critical between MDs and APRNs. Some comments included:

There should be getaways for the NPs and doctors for continuing education that allows us to get to know each other and socialize between the two groups...that would make a huge difference.

We should support each other and let MDs know what we are about and what we are doing and what we can do to help. You know...we aren't trying to take over your patients...we are trying to be helpful for everybody.

Some physicians are so up close to NPs and don't understand what NPs do or don't do and that has to be addressed over time. It could interfere with some patient's care.

Participants also stated that education between disciplines could be a facilitator for integration of care. One participant discussed the idea of inviting other disciplines to observe the practice setting once a month to increase familiarity with the role. This participant explained, "it's an opportunity to explain what we can do for them and what they have found effective...just so we are on the same page." Another participant stated that education hadn't been innovative enough in the recent past:

I think that nobody's doing enough trailblazing anymore. We're all working on doing evidence based practice medicine but we're not the ones gathering the evidence anymore and I think that's really where the DNP comes into play. I think that's probably where you get all these grand concepts that we all base a lot of our practice on in theories and it seems like we've gone through a little period where we're not getting so many grand concepts and theories. People are just rehashing what other people have done.

Location

Location emerged as a major facilitator to implementing an integrated care model, chiefly due to access to services for complex patients. Most participants stressed the considerable challenges that complex patients experience when they require multiple services to manage their health. Many participants believed that the provision of services in a central location would increase access to care, decrease missed appointments due to transportation issues, and improve the overall health and wellness of persons requiring more than one provider to administer their care. Some comments from participants included:

I think that's what we forget with patients, is that, we want them to come to us. Why? We're not sick.

Where this [centrally locating services] would be best applied, in all honesty, would be places like homeless shelters.

Until we get to the point that we understand that we have to provide holistic care to everybody, we can forget it. People don't have the money or the time to run all over town getting fragmented care.

One participant suggested placing services on a bus line or in the middle of "the projects." They suggested, "Put it someplace where people actually love. Try that for a change; try putting it where these people will actually go." However, one participant stated that providing in-office consultation services for primary care or behavioral health would be one-sided, particularly related to the low likelihood of a primary care provider having an office in a

outpatient mental health office. This participant stated that it would be more likely that a psychiatric/mental health provider would be placed in a primary care office to provide consultation services: “are you going to keep that person busy enough and are they going to have enough support staff for themselves?” Another concern for this model was, “there might be a little cultural bias...I don’t know but I think professional isolation could be little bit of a problem.” Overall, participants believed that location of services could increase access and could thereby play a major role in facilitation of an integrated care model in the outpatient setting.

Finances

One the themes that participants identified as major barriers to implementation of an integrated care model were finances and reimbursement. Across the board, participants felt as if finances and reimbursement rates are driving the healthcare system and providing the appropriate care is becoming increasingly difficult. Most participants identified insurance plans with multiple restrictions and high deductibles as a major barrier. Other participants discussed the phenomenon that especially in terms of mental health, there are multiple confounding factors that are barriers to receiving the appropriate treatment. “It’s situational and so they’ve lost their job or their spouse is sick and they’re lacking in support in a lot of ways, so it becomes a financial problem.” One participant discussed the difficulty in collaborating with other providers across different disciplines on patients requiring multiple services due to lack of reimbursement. “In a dream world, we would be doing interdisciplinary staffing on these people and nobody’s going to get reimbursed for that.” One participant illustrates:

I wish for care to be clinician-driven and not administratively or bureaucratically driven. But I know that's pie in the sky. And I know this may be next to impossible, but for everybody to be on the same page...for money not to be the number one issue.

Participants noted that finances play a role in the success of outpatient clinics due to the dependence on income into the practice and reimbursement rates for services. One participant felt as if finance was a barrier to the success of utilization of psychiatric nurse practitioners:

A part of the problem is that everybody thinks they could use a psych NP. Ask somebody, "Would you like a new car? Yeah. Do you want to pay for the new car? No." And that's where everything starts to fall apart because they could imagine all kinds of great uses for you but then how are you going to make that 80 to \$100,000 salary that is the national norm or whatever. That's where things are really tricky is trying to figure out, okay, so are you going to be able to keep them busy enough? How are you going to schedule them? Is insurance going to reimburse for all of that?

Participants also identified time as a barrier to implantation of an integrated care model, particularly related to finances and reimbursement. Several participants noted that because of the high volume of patients needing to be seen because of minimal reimbursement rates, there is less time to talk with patients, to discuss issues with providers, and to communicate across disciplines. Participants indicated that the issue is more pressing within the mental health community because there are less providers and a high volume of patients to be seen in one day. Participants noted that referring persons to outside services was extremely difficult. "There's no way-we're not caseworkers. I mean we don't have the time or energy or manpower to figure it out."

Patient Characteristics

Participants identified some aspects of patient characteristics that could possibly be a barrier to implementation of an integrated care model; for example, stigma and confidentiality could be potential barriers to implementation of an integrated care model. Participants believed that stigma and confidentiality might play a role in the success of an integrated model. Stigma was identified as a major barrier to integration of care in terms of seeking treatment and the risk of being labeled by peers or providers. Some participants stated that although co-location of services would be beneficial to integration of care, it could also be a barrier due to patients not wanting to be seen at a central location when they're seeking mental health services or having to be grouped with others who may be contagious. Other participants believed that stigma was a barrier to integration due to the fact that patients may experience embarrassment or shame when seeking treatment for depression or anxiety. One participant said:

...to get to that point that we can own up to and get over the stigma of having mental health problems and accept the fact that your brain is just like your kidneys or your heart or anything else...until you get over that and accept that and until we address it, we're just not going to be able to move forward. I don't know when we're going to get there.

Confidentiality was another recognized barrier to integration; this barrier emerged during conversations about electronic medical records (EMRs). Some participants felt that although EMRs would be an ideal platform for providers to share information, some patients may be concerned about EMR use if they don't want their medical record to be seen by all providers. One participant provided a hypothetical situation as an example of a person that had a motor vehicle accident and the attorney's office was requesting the patient's medical record. This participant suggested that if all records were integrated, the attorney may have access to therapy

notes and other documents that the patient desires to keep confidential. This participant stated, "...now they know you were on Klonopin for three years and that you've had a hospitalization for depression and is that really any of their business?"

Scope of Practice

Participants held varying viewpoints about the degree to which scope of practice could serve as a potential barrier or facilitator to implementation of an integrated care model. In general, participants with a psychiatric/mental health background reported that they did not prescribe outside of their "comfort zone" or scope of practice. For example, some participants with a psychiatric background stated that they sometimes felt pressured to prescribe outside of their scope of practice, but did not prescribe outside of their comfort zone because they were not familiar with the medications the patient was requesting a prescription for. However, some participants did note that there was a "gray area" in terms of prescribing drugs such as beta-blockers or mood stabilizers for a psychiatric purpose that overlapped in the treatment of comorbid medical disorders. Conversely, participants with a primary care background felt more comfortable prescribing psychotherapeutic medications. However, these participants did elaborate by stating that they had certain drugs and disorders that they were more familiar treating than others. Some comments from the participants included:

Sometimes I would treat anxiety and hope it would help their blood pressure.

It's hard enough to keep up with one aspect of care and the medications, but to be an expert in both areas is, in a way, a little scary.

There are a wide variety of comfort levels.

The reality is my training in psychiatry and those medications is fairly limited. You know, I can read trade journals all day long, and I can read articles all day long, but honestly, the training in psych in school is, you know...it is what it is.

Some participants pointed out that while they are glad that primary care providers are willing to address a person's mental health issues in the primary care setting, it can sometimes create problems for the patient later in treatment. One participant describes this experience:

If they [primary care providers] feel like it's in their scope of practice, that's fine. What I have discovered, and it's certainly not everyone, but the vast majority of primary care providers have a few medications and a few doses they feel comfortable using. So in some ways, that complicates things for us because then they eventually come to us and say, "I've tried every antidepressant and none of them have worked." And clearly, they're not bipolar. It just means they didn't get over 20 mg of Prozac.

Discussion

This study examined PC and PMH NP perspectives on integration of medical and psychiatric treatment. Some findings are similar to current research; in particular, several other studies have addressed the need for innovated treatment delivery systems to address the needs of increasingly complex patients with multiple comorbidities (Bartels, 2004; Prince et al., 2007; Sterling, Chi, & Hinman, 2011; Rees, Huby, McDade, & McKechnie, 2004). Both perceived facilitators and barriers to integration implementation that emerged in these study findings have also been reported in the literature. However, as Rees et al. (2004) notes, there are a limited amount of studies that have evaluated the impact of integrated care pathways on communication and collaboration within multidisciplinary teams.

Perceived facilitators that emerged as a result of this study included collaboration, education, and location of services. Similar themes have appeared in other studies. Rees et al. (2004) discussed positive outcomes and provider experience from implementation of an integrated care model, including communication, collaboration, education, and location. Rees et

al. (2004) notes, “teams talked very positively about joint working and identified the need to share roles, responsibilities and information” (p. 530). Rees et al. (2004) also discussed other facilitators to successful implementation of an integrated care pathway, including engaging in professional discussion and liaison, feeling supported, sharing the stress, and enjoying partnering with multidisciplinary providers to improve efficiency of services. Sterling et al. (2011) discussed the importance of providing education to providers who are unfamiliar with assessment or treatment of comorbid mental health or substance abuse disorders. Similarly, participants of this study strongly emphasized the importance of education across disciplines. Participants believed that education would not only facilitate implementation of an integrated care model, but would also facilitate collaboration between patient and provider, between providers, and between disciplines.

Perceived barriers that emerged in this study include finances and reimbursement, patient characteristics, and scope of practice. While participants’ views on financial status and reimbursement were largely undesirable, Sterling et al. (2011) reports that this perceived barrier could be improved upon if there is a change in the current practice of gearing reimbursement towards long term disease management of comorbid disorders instead of the current practice, which focuses on acute disease.

Sterling et al. (2011) also reflects participants’ views on patient characteristics such as stigma and confidentiality as a perceived barrier by noting that this complex patient population experience discrimination from society, providers, family members, and themselves. Sterling et al. (2011) explains, “Under these circumstances, it is difficult for patients to assume the role of proactive consumers, empowered to demand the highest quality, coordinated health care” (p. 342). Participants’ views on the perceived barrier of confidentiality parallel concerns in the

literature. However, Sterling et al. (2011) reports that if confidentiality and privacy concerns can be adequately addressed, sharing patient information through the electronic medical record has the potential to drastically impact collaboration in a positive manner.

Scope of practice was not widely addressed within the literature. It is apparent from participants' statements that this is a major issue in discussion of implementation of an integrated care model. It continues to be a "gray area" in terms of practice considerations between disciplines and this topic requires further studying and investigation. For example, guidelines outlined in the scope of practice manuals/handbooks that a provider references when treating and prescribing complex individuals, needs to be more explicitly explained. Family or primary care providers obviously have a wider scope in terms of prescriptive authority. However, how wide does this scope reach? As the research conducted in this study shows, most prescribers have a comfort level in terms of how far they will go in prescribing agents they are not necessarily comfortable with. For those prescribers that have a high level of confidence in their prescribing ability, to what lengths will they go to treat their patient, even if it may be outside of their comfort zone? Oftentimes, it appears that this evolves into an ethical dilemma with providers. Is it necessarily illegal for a primary care provider to manage multiple psychotropic medications for a patient? No. Is it unsafe? Probably. Conversely, mental health providers come up against a similar ethical dilemma when treating patients with multiple medical comorbidities that have difficulty accessing primary health care services. Because of this, there needs to be some unequivocal guidelines set for providers to reference when treating these patients in order to provide safe, quality health care to these individuals.

Implications for Nursing Practice, Education, and Research

The findings from this study are very preliminary and much remains to be studied about implementation of an integrated care model in the outpatient setting. As mentioned by a participant in this study, the gap between mental health research and practice is vast. There are several challenges remaining in the exploration of implementing an integrated care model between primary and behavioral health. The disadvantage to research thus far is that there is not much information in the literature regarding integrated services as described in this study. Perceived barriers such as financial constraints, reimbursement, stigma, confidentiality, and scope of practice are enormous obstacles that must be conquered before a successful shift to integrated health care is achieved.

The author supports the participants' comments and recommendations regarding the formation of an integrated health care model in the future. Nursing researchers and policymakers need to continue to advocate for increased reimbursement for services and lobby against insurance companies with massive deductibles, as well as countless restrictions on visits and medications. Additionally, further education for patients, providers, and disciplines needs to be addressed. There cannot be successful communication, collaboration, or integration if providers don't understand what resources are available to them to provide the highest quality of patient care. Nursing education needs to be restructured to include strategies for multidisciplinary treatment, stigma and confidentiality sensitivity training, and approaches to successful collaboration.

Unmistakably, a practice change in the way providers treat patients with comorbid medical or mental health disorders is warranted. Further research on how to break down the described barriers in order to achieve successful integration of primary and behavioral health

care is needed. The Doctorate of Nursing Practice (DNP) degree contains within its curriculum the preparation for providers to be able to lead a change in practice and improve the quality of evidence-based care. The DNP provides an opportunity for complex practice as well as faculty and leadership roles (The American Association of Colleges of Nursing, 2006). The AACN (2006) also provide “enhanced knowledge to improve nursing practice and patient outcomes and enhanced leadership skills to strengthen practice and health care delivery” (p. 5). The DNP Essentials include much influence from the Institute of Medicine (IOM) that have guided the formation and development of robust DNP programs. Part of these influences and recommendations include restructuring of education for health professionals to include enhanced delivery of care by being active members of an interdisciplinary team while emphasizing evidenced-based practice, quality improvement, and informatics (AACN, 2006). Informatics and information technology are also highlighted as important aspects of the DNP program guidelines. Part of the development involving information technology and informatics involves collecting data, generating evidence, analyzing data, designing evidence-based interventions, predicting and analyzing outcomes, and identifying gaps in evidence for practice (AACN, 2006). Overall, the AACN (2006) outlines the importance of developing leadership roles by focusing on collaboration and facilitating successful interprofessional practice relationships. Hopefully, the information gathered in this study combined with several other similar studies (Rees et al., 2004; Sterling et al., 2011; Prince et al., 2007, Bartels, 2004), can provide a foundation for future nursing researchers to build upon. It is the hope that through future nursing education, research, and practice, an improved health care system can be created for this complex patient population.

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Proposal for a Comorbidity Screening Program at A Community Based Wellness Center

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1. PROGRAM DESCRIPTION

1.1 AIMS

This proposal aims to describe an evaluation of the screening process for common comorbid medical illnesses and substance abuse disorders during the initial psychiatric evaluation at a local community based health and wellness program for the homeless population. The wellness center provides services for the homeless and at-risk population, including shelter and transitional housing, substance abuse treatment, social services, health clinics, and mental health care. More specifically, this proposal will describe procedures for evaluation frequency of screening for comorbid hypertension, hypercholesterolemia, obesity, smoking, diabetes, and substance abuse during the initial psychiatric evaluation. Furthermore, the evaluation will assess the frequency of referrals to primary care treatment for these comorbid illnesses among the homeless population who are seen at the program for an initial psychiatric evaluation.

1.2 BACKGROUND AND SIGNIFICANCE

People diagnosed with serious mental illness often face stigma from both society and healthcare providers. The negative attitudes toward this vulnerable population can hinder the quality of care being provided to the patients. Yadev, Arya, Kataria, and Balhara (2012) conducted a study to examine the impact of psychiatric education and training on the attitudes of medical students toward the mentally ill population. This study also measured negative attitudes towards the mentally ill, most specifically stigma against this population, which were described as iatrogenic. Study findings suggested that these negative attitudes may not only be harmful from a patient care point of view, but can also negatively impact society's view of mental health disorders (Yadev et al., 2012).

In recent years, more studies have been conducted on the prevalence of co-occurring mental and physical illness. A high prevalence of comorbid physical illnesses has been found in patients with anxiety and panic disorders. For example, Harter, Conway, and Merikangas (2003) found that patients with panic disorders were more likely to have comorbid medical disorders such as “angina, mitral valve prolapse, idiopathic cardiomyopathy, labile hypertension, respiratory illness, migraine headaches, peptic ulcer disease, diabetes mellitus, or thyroid disease” (p. 314).

Rates of untreated comorbid psychiatric and medical illness among the homeless population are high. For example, the prevalence of psychiatric disorders among patients served at a Boston-area homeless shelter was estimated at over 40% (Surber, Dwyer, Ryan, Goldfinger, & Kelly, 1988). Comparable prevalence rates were also seen at 4 other shelters, located in different states included in the study. The most prevalent psychiatric disorders found within this population were schizophrenia, major affective disorders, substance abuse, and personality disorders (Surber et al., 1988). In addition, these residents had several physical health illnesses, including hypertension, other arteriosclerotic cardiovascular diseases, major infections, nutritional and vitamin deficiencies, and peripheral vascular disease.

A provider’s inability or unwillingness to treat complicated physical or mental health issues or lack of access to treatment presents high risk for negative health-related outcomes in this vulnerable population. In order to best serve this population, primary care and mental health providers must possess the skills and knowledge base to treat or refer for illnesses commonly seen in this population, and advocate for increased access to comprehensive care to advocate for this population across the gamut of both mental and physical ailments. Inadequate or non-existent treatment for this population can potentially result in higher rates of hospital stays for outpatient

procedures, as well as longer length of hospitalization, and increased expenditures for emergency treatment for these individuals.

Persons seeking psychiatric services through this community based wellness center should be screened and referred for comorbid medical illnesses and substance abuse. The recommended procedures for screening and referral will constitute a comprehensive assessment to guide treatment and avoid unnecessary testing, procedures, and treatment. Persons who are found to have comorbid medical illness and/or substance abuse disorders should also be referred to the appropriate services. If mental health providers are more meticulous in ruling out possible physical illness, time and money can be saved on treatment modalities that may not be targeting the underlying issue. Jacobson, Groot, and Samson (1997) stated,

“If co-existing psychiatric symptoms and/or illnesses contribute to the impaired quality of life found among patients with chronic medical conditions then it may be possible to influence the quality of life of such individuals by greater attention to identification and treatment of these coexisting psychiatric problems” (1997, p. 11).

Based on the studies evaluated, screening for substance abuse and comorbid medical disorders can inform providers’ decisions about provision of treatment or referral to an outside specialty for illness management. Such informed decision-making can improve the health and quality of life for patients. It is important to assess whether adequate assessment, treatment, and referral is being completed in one of the most vulnerable mentally ill populations, the homeless.

2. EVALUATION FOCUS

2.1 OBJECTIVE

This report describes a proposal for a 5-year evaluation of the screening and referral process and outcomes of a local community based wellness center. Three main questions provide an overarching guide to the proposed evaluation of the processes, outcomes and impact of screening

and referral procedures within the community-based wellness center in terms of its processes, outcomes, and impacts. These questions include:

1. Process Questions:
 - 1.1 What is the reach of the wellness program?
 - 1.2 What is the dose of the wellness program for intended participants?
2. What is the provider fidelity to elements of the screening and referral protocol?
3. What are the outcomes of those participating in this community based wellness program?
4. What is the impact of the community based wellness program on rates of substance abuse, cardiovascular disease, respiratory disease, diabetic complications, and hospitalizations?

Table 1 presents the evaluation model with different aspects of the evaluations, questions answered, assessment and evaluation of these questions, and the specific data sources used for each evaluation.

The process evaluation addresses the first questions regarding the reach of the community based wellness program toward its intended audience. For this aspect of the evaluation, the community based wellness center's approach to reaching homeless individuals with complex mental health and medical comorbidities will be examined along with the screening and referral process. The dose will address the number of elements that are screened, and the fidelity assessment will assess provider adherence to the screening protocol.

The outcome evaluation will involve examining the success of this community based health and wellness program in improving substance abuse cessation, blood pressure, blood glucose, weight, smoking cessation, and cholesterol. Attendance to programs within the community based wellness center and referral sources will be evaluated as well.

For the impact evaluation, a reduction in the rates of substance abuse, cardiovascular disease, respiratory disease, diabetic complications, weight/BMI, and hospitalizations for these comorbid disorders will be evaluated. This evaluation targets the broader community impact on chronic disease processes and reduction in medical comorbidities for the homeless population that might not be addressed otherwise.

Table 1. Evaluation Model for a Community Based Wellness Program

| Evaluation | Questions to Answer | Assessment & Evaluation | Data Sources |
|---------------------------|--|--|--|
| PROCESS EVALUATION | What is the reach of the wellness program? What is the dose of the wellness program for intended participants? What is the provider fidelity to elements of the screening and referral protocol? | 1. Screening/Referral -Screened for hypertension, diabetes, obesity, smoking, substance abuse, hypercholesterolemia -To wellness center program -To outside referral source | 1. Electronic Medical Records -Percentage screened on initial assessment -Referral made if indicated |
| OUTCOME EVALUATION | What are the outcomes of those participating in this community based wellness program? | 2. Improvement in parameters for each comorbidity | 2. Electronic Medical Records -Percent of clients with documented improved |

| | | | |
|--------------------------|--|--|---|
| | | | parameters for each comorbidity |
| IMPACT EVALUATION | To what extent has this community based wellness program impacted rates of substance abuse, cardiovascular disease, respiratory disease, diabetic complications, and hospitalizations? | 3. Overall reduction in community rates of comorbidities evaluated as well as hospitalizations for these comorbidities | 3. CDC records of community's incidence of disease and hospitalizations |

3. DATA SOURCES, DESIGN AND METHODS

The setting of this evaluation will be a community based wellness center for the homeless population in Lexington, KY. The wellness center provides assistance to those in need by offering services including emergency shelter, recovery programs for both men and women, detention center recovery programs, mental health program, social services, referrals to health clinics, employment programs, transitional housing, services designed specifically for both Hispanic and veteran populations, mobile outreach, Al Anon, permanent housing, and educational opportunities. For this study, we will be focusing on the mental health program services. The services of the mental health program at the wellness center include psychiatric assessment and evaluation, medication assistance and monitoring, case management services, housing support services, payee services, service referrals, and transportation assistance.

3.1 PROCESS EVALUATION

The primary elements of this process evaluation will assess:

- a) Screening and referral rates for abnormal blood pressure, blood glucose/HbA1c, weight, cholesterol, smoking, and substance abuse.
- b) Documentation of whether referral was made to a program within the wellness center or an outside source.

The study will be a retrospective descriptive analysis. For this study, the documentation of blood pressure, blood glucose, or HbA1c, weight, cholesterol, smoking, and substance abuse history will be evaluated by examining the electronic medical record. In addition, the documentation of successful referral to outside services for these comorbidities will be assessed. A random sample of medical records will be selected from among the total number of medical records with initial psychiatric evaluations and subsequent follow-up visits. Documentation in the patient chart of the aforementioned criteria completed by the providers employed at the community based wellness center will be the focus of this study.

The sample will consist of the medical record of all patients seeking an initial psychiatric evaluation over the past year. Inclusion criteria will include those patient records that have documentation of an initial psychiatric assessment over the past year that was conducted at the wellness center located in Lexington, Kentucky. The records of those who are considered “established patients,” meaning they are seeking only follow-up appointments during the allotted one-year period, will be excluded from this study. Chart audits will be performed on this sample that includes the initial psychiatric evaluation and all subsequent follow-up visits over the next

one year. Those patients who have completed an initial psychiatric interview outside of the one-year period will be excluded from this study. The data will be obtained from the medical record and entered into an SPSS spreadsheet.

For the process evaluation, reach will be calculated by using frequencies and descriptive statistics. This will be calculated with the formula: (number of patients screened and referred/number of patients seen at the clinic x100).

Dose will be measured by calculating the number of co-morbid medical illnesses screened by providers and the number of referrals that are made. Fidelity will be measured by examining the documentation on the components of the physical assessment.

See Appendix 2 for Process Evaluation Table

3.2 OUTCOME EVALUATION

The primary outcomes for this outcome evaluation were:

- a) Improvement in parameters for each comorbidity.

For this outcome, the improvement in parameters for each of these comorbidities is defined as if the participants are attending the referral source appointment or program they were referred to within or without the wellness center. Also, it is an improvement in parameters set for blood pressure, glucose, weight, smoking cessation, substance abuse, and cholesterol. This will be evaluated by whether or not the participant has either stopped smoking or abusing substances or started an exercise or wellness program. See Appendix 3 for Outcome Evaluation Table.

To examine if improvement in parameters are present in this client sample, we will evaluate whether there is documentation of improved blood pressure, blood glucose/HbA1c, weight, cholesterol, smoking, or substance abuse during the follow-up visits at one, three, and five years following the initial psychiatric evaluation. We will also measure whether there is documentation of client self-reporting of successful substance abuse referral services following the initial psychiatric evaluation. We will be noting whether treatment has been initiated for hypertension, diabetes, obesity, hypercholesterolemia, smoking, or substance abuse in this population.

3.3 IMPACT EVALUATION

The primary outcomes for the impact evaluation were to determine:

- a) Overall reduction in community rates of comorbidities evaluated as well as hospitalizations for these comorbidities.

Descriptive observational data will be used to assess changes in the rates of these comorbidities as a result of the wellness center referral program over time. Also, the rate of hospitalizations related to these comorbidities will be evaluated, including decrease in cardiovascular disease, respiratory disease, diabetic complications, and hospitalizations.

4. CONCLUSIONS AND RECOMMENDATIONS

The goal of this pilot program proposal is to evaluate the percentage of clients who are appropriately referred to an outside provider by the community based wellness center, to identify gaps in practice that require further education and provide data for revision of practice

guidelines. If a large percentage of clients who had an existing comorbidity present upon initial psychiatric evaluation are not appropriately referred, a further study will be warranted that will examine educational gaps of psychiatric and mental health providers at the wellness center. It is the overall goal of integrated care models to provide quality, holistic healthcare. The mentally ill homeless population can greatly benefit from this model of care. It is the hope that the outcomes of this study can provide valuable information that will aid in the improvement of the quality of care for this population. By evaluating the current process for evaluating comorbid disorders at the wellness center, the need for the integration of these two disciplines can be highlighted. By incorporating community partners in this program from both primary care providers as well as mental health services providers, a pilot program can be created that will benefit members of the community, namely the homeless, underinsured, and underserved population.

The following recommendations will aid community based wellness centers in increasing visibility and reach while advancing education and research to provide quality care to the homeless and underserved population with complicated comorbidities.

- 1) Education and training on how to properly screen and refer patients that require additional services.
- 2) Learning modules for providers can be created for this population in order to remedy the practice gaps.
- 3) Include community partners involved in providing primary care to an underinsured and underserved population as well as those involved in providing and coordinating mental health services.

- 4) Disseminate findings of research and pilot studies to aid further, more in-depth studies with larger sample sizes.

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Capstone Report Conclusion

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Conclusion

As illustrated in the review of the literature (Manuscript 1), it is evident that the need is great for the mentally ill population with comorbid medical disorders. Although information and evidence is limited in the literature, there have been some studies, which show the benefit of integrating primary care and mental health services. Interventions such as mobile outreach services and co-location of services have been shown to reduce health disparities, improve outcomes, and increase patient satisfaction (Happell, et al., 2012; Gill et al., 2009).

The outcomes from the qualitative study described in Manuscript 2 echo the evidence that has been found in the literature in terms of recommendations for future practice. The perceived facilitators that emerged as a result of this study were similar to previous studies that discussed integrated care models, including communication, collaboration, education, and clinic or treatment location (Rees et al., 2004). There was heavy emphasis specifically on the need for education, especially between providers and across disciplines. Perceived barriers to implementation were also similar to previous studies and highlighted the necessity for interventions to overcome these obstacles so that practice change can occur. Barriers including stigma and confidentiality of patient records may be the most challenging to overcome and will require rigorous research and innovation in order to be able to successfully transition to an integrated care model in the future.

The third and final manuscript explored a proposed comorbidity-screening program at the Hope Center. By outlining a pilot program to be implemented in the homeless and mentally ill population, more evidence can be gathered that will guide further research in this area. By evaluating outcomes of a pilot-screening program such as the one described in this proposal, gaps in practice will be identified, and areas requiring enhanced education and revision of

current practice guidelines will be highlighted. If studies such as this can be implemented and researched, there will be more and more evidence to support a practice change to an integrated care model for primary care and mental health services in the outpatient setting. Preventative care is what is needed most by the mentally ill population, especially with the high incidence of medical comorbidities associated with this disease process. By continuing to advocate for this population through value-added research and policy changes, an improvement in the quality of care for these complex patients can become a reality.

Appendix 1

Recruitment Email

Hello!

My name is Holly Gray and I am currently a graduate student in the DNP Program at the University of Kentucky. I am conducting a qualitative research study with the goal of examining provider perspectives on implementation of an integrated primary and behavioral health care model in the outpatient setting. If you are a primary care provider or a mental health provider in Kentucky and would be interested in participating in a one-time face-to-face interview regarding this subject, I would greatly appreciate it. I am available to travel to the location of your choice for the interview. I am the primary investigator conducting this study and can be contacted at holly.gray@uky.edu or (270)-401-6525. I would very much appreciate and value your participation in my research study. Thanks so much for your time.

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