IMPLEMENTATION OF A MENTAL HEALTH PRE-VISIT PROCESS IN A RURAL PRIMARY CARE CLINIC: A QUALITY IMPROVEMENT PROJECT

by

Tori Rae Kaufman

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ABSTRACT

Background: United States rural residents have limited access to mental healthcare. Nearly half of Montana's population is designated rural. Maximizing resources in resource-deficient regions requires creative strategies and process implementation to streamline workflow to achieve sufficient care.

Local Problem: A rural Eastern Montana primary clinic has attempted to address its rural community's limited mental health resources by employing a psychologist. There is no new mental health patient pre-visit process at the project site. The purpose of the project was to implement a pre-visit process to improve the psychologist's ability to effectively care for the patient population.

Methods: The Iowa Model Revised guided this quality improvement (QI) project. Process changes evaluations occurred at week three, week six, and postintervention.

Interventions: A new mental health patient pre-visit process and packet were created, including a standardized Mental Health History Questionnaire (MHHQ). Educational in-services and staff completion checklists were performed to promote adherence to the process change.

Results: The project goals were achieved: 95% of the new mental health patient pre-visit packets were mailed within two days of referral acceptance, 75% of new mental health patients returned their MHHQs, and 100% of staff reviewed and signed the new mental health patient pre-visit process.

Conclusion: The project improved the psychologist and staff's new mental health patient workflow process. The psychologist noted an increase in patient preparedness and satisfaction, a decrease in time to diagnosis/treatment, and a slight decrease in the initial mental health evaluation duration.

CHAPTER ONE

INTRODUCTION, BACKGROUND & LITERATURE REVIEW

Introduction and Background

In 2021, 57.8 million people, or 22.8% of the adult population in the United States, reported experiencing a mental illness (National Alliance on Mental Health Illness [NAMI], 2021). In Montana, 20.81% of the general population reports experiencing a mental illness (Reinhart et al., 2021), with 35.1% of adults experiencing depression or anxiety (NAMI, 2021). Of these individuals, only 17.9% were able to access counseling or therapy. It is estimated that 573,811 Montanans live in communities that lack sufficient mental healthcare professionals (NAMI, 2021). Per the Mental Health Care Professional Shortage Areas (HPSAs) statistics, an additional 70 mental healthcare providers (HCPs) are needed for Montana to be no longer designated as a mental healthcare shortage area (Bureau of Health Workforce et al., 2023).

Lack of access to mental healthcare is a national phenomenon that was only intensified by the COVID-19 pandemic. Rural areas like Montana are particularly vulnerable to mental health struggles, including but not limited to substance abuse, undiagnosed and untreated mental illness, and high rates of suicide (Rural Health Information [RHI], 2019). Rural Montanans struggle to access mental healthcare services and often cannot access primary healthcare services (NAMI, 2021).

The need to maximize available mental health services to increase accessibility for rural Montana residents is evident. One feasible option is to implement a pre-visit process for rural mental health patients to increase provider time with patients. Pre-visit preparations such as pre-

visit screenings of patients in a primary care setting have improved the quality of care and decreased the transition time between patients (Lin, 2020). Pre-visit preparation also promotes patient-centered care, which enhances communication between the patient and the provider (Gholamzadeh et al., 2020). The scoping review aimed to locate studies on the use of pre-visit intake processes across all healthcare settings.

Methods

Overview of Studies

Identified studies included systematic reviews, pilot studies, and randomized controlled trials (RCTs). The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) recommendations were applied to synthesize and review the extant literature (Tricco et al., 2018).

Search Strategy

Four databases were accessed through Montana State University (MSU) graduate student library privileges and used in the scoping review. The databases searched were MedLine Academic, Web of Science, and PubMed Central. Article searches were from January 1, 2014, through December 31, 2023. The following terms were used in the search: “previsit” OR “pre-visit,” AND “quality improvement,” AND “process,” AND “healthcare.” Citation chasing was utilized to locate five additional studies that met the study eligibility criteria.

Eligibility

Studies were included in the literature review if they were in English, full text was available online, peer-reviewed, open access, and published in the last ten years. Excluded articles included thesis work, dissertations, and duplicates.

Study Selection. The initial electronic search through the MSU CatSearch yielded 135 results through MEDLINE Academic, PubMed Central, and Web of Science databases. Five additional studies were located through citation chasing. Abstracts and overviews of the 140 studies were initially reviewed; 125 studies were excluded because they did not fulfill eligibility criteria. The remaining 15 full-text studies were assessed and examined for inclusion. Studies were removed from selection if the study was qualitative, published before 2014, or the primary focus was not on the pre-visit process. Of the 15 studies, six full-text studies met inclusion criteria and were included in the scoping review. Refer to Appendix A PRISMA to review the literature search process.

Results

Overview of Literature

The six studies that met inclusion criteria were a diverse collection of peer-reviewed literature comprised of two systematic reviews (Gholamzadeh et al., 2021; Glasner et al., 2021), a cross-sectional study (Hageman et al., 2015), a pilot RCT study (O'Malley et al., 2022), a mixed method study (Walker et al., 2021), and an expert opinion study (Sinsky et al., 2015).

The systematic review by Gholamzadeh et al. (2021) evaluated the existing techniques and tools available for implementing pre-visit planning into practice. The characteristics of the

reviewed studies on pre-visit planning were summarized. Initially, 385 citations were retrieved for review through database searches. In the end, 49 studies from 10 countries met inclusion criteria and were assessed using qualitative analysis to form an appropriate framework to map the main concepts in this study. Findings revealed (1) the use of pre-visit planning has the most significant influence on the physician-patient relationship; (2) the pre-visit approach could potentially enhance quality care for patients; (3) pre-visit planning enhances communication between patients and providers; and (4) implementation of pre-visit planning and tools is a critical component in a patient-centered care system (Gholamzadeh et al., 2021).

Glasner et al. (2021) conducted a systematic review to describe multidomain pre-visit psychosocial screening tools and their characteristics in the 21st century. Eligibility criteria for this study were screening tools targeting the population 10-24 years old, pre-visit timing, tools evaluating a minimum of three independent psychosocial domains, and application in primary care, social, or school settings. Nine databases were searched to locate 10,623 studies. Sixteen studies identified 15 multi-domain psychosocial screening tools. Using a mixed-method analysis approach findings revealed (1) implementation of a universal pre-visit screening tool would support providers globally by focusing on prevention and detection of illnesses; (2) using a pre-visit multidomain tool showed shorter administration time, increased detection rates, and equivalent acceptability when comparing to a clinician interview assessment; and (3) pre-visit screening allows the patient to disclose more sensitive topics as they are allowed more time to reflect and answer questions (Glasner et al., 2021).

A cross-sectional study by Hageman et al. (2015) was conducted to see if correlations exist among pre-visit expectations, met expectations, and overall patient satisfaction. New

patients were asked to complete a patient intentions questionnaire (PIQ) pre-visit and an expectation met questionnaire (EMQ) post-visit. The collected information was assessed using the medical interview satisfaction scale (MISS). Findings were reviewed and evaluated using a Likert Scale. The results showed (1) a positive correlation between pre-visit expectation and satisfaction, (2) improved patient satisfaction when triage and education are included in the pre-visit process, and (3) there was not a strong relationship between the pre-visit process and met expectations (Hageman et al., 2015).

A pilot RCT assessed if an intervention to help patients prioritize their visit goals would improve communication and clinical outcomes (O'Malley et al. (2022). Patients had to complete their baseline visit to participate. Of 120 hypertensive patients, 106 completed their baseline visit and were included in the study in a primary care clinic. Patients were randomly selected to receive usual care or a pre-visit activation card to help articulate their needs and establish priorities for their upcoming appointments. All encounters were assessed with duplicate ratings of patient activation and decision-making. Pill count measured medication adherence at four and 12 weeks after the baseline visit. Surveys measuring patient-provider interaction, functional status, and blood pressure were conducted pre-visit at their baseline appointment and immediately post-visit at weeks four and 12. The results showed (1) the pre-visit tool did not affect the quality of the patient-provider interaction during or after the visit and (2) implementing a single pre-visit tool to prompt patients to construct an ordered agenda slightly improved patient involvement during their visit (O'Malley et al., 2022).

In a mixed-method approach, Walker et al. (2021) worked with four United States academic health centers, requesting patients submit an OurNotes pre-visit form that is word-

constrained, unstructured interval history, and an agenda containing their prioritized desires to discuss during their visit. The providers were requested to review and incorporate the patient submissions into their visit documentation notes. The proportion of patients who returned the pre-visit forms was low to modest (fewer than 10% of eligible visits), and only two of the four participating academic health centers were able to conduct the post-implementation evaluations due to the restrictions of COVID-19. The study discovered (1) patients found filling out the forms to be largely beneficial, (2) 92.2% of patients felt sending answers before a visit was ideal, (3) the majority (68.8%) of patients thought the pre-visit questions helped prepare them for their visit, (4) the process had a neutral (54%) or positive (35%) impact on the patient visit length, (5) most providers (93%) felt interim patient histories were beneficial, (6) the majority of providers (97%) found patient agendas to be helpful, (7) patients were interested in using *OurNotes* pre-visit forms, (8) providers had a positive experience using *OurNotes* pre-visit forms, and (9) at the end of the pilot all participating providers opted to continue using the pre-visit forms (Walker et al., 2021).

An expert opinion study by Sinsky et al. (2015) was included in the scoping review. The study gives an overview of pre-visit planning with lists for pre-visit planning along with benefits and suggestions in a private or primary care setting. Seven potential pre-visit approaches were listed, including (1) plan forward, (2) look back, (3) pre-visit lab testing, (4) pre-visit phone call, (5) visit preparation, (6) pre-visit questionnaire, and (7) mini huddle (Sinsky et al., 2015). The final suggestion given by Sinsky et al. (2015) is that (1) pre-visit planning can make patient appointments run more smoothly, (2) pre-visit planning gives the provider more time to focus on the patient, (3) pre-visit planning may give the provider additional time to discuss what is most

important to the patient, and (4) pre-visit planning potentially provides the patient and provider more time to visit and build a stronger therapeutic relationship (Sinsky et al., 2015).

Literature Synthesis

Patient Care & Satisfaction. Four studies showed the application of pre-visit processes, planning, or tools to be a key component in enhancing the quality of patient care and patient satisfaction (Gholamzadeh et al., 2021; Glasner et al., 2021; Hageman et al., 2015; Walker et al., 2021). Additionally, patient satisfaction and quality of care were enhanced by allowing more time to focus on what matters to the patient as the pre-visit process gathered information that otherwise would need to be gathered during the patient appointment (Gholamzadeh et al., 2021; Glasner et al., 2021; Hageman et al., 2015; O'Malley et al., 2022; Sinsky et al., 2015).

Smoother Appointments. Implementing pre-visit processes was shown to enhance the flow of patient appointments and smooth appointment transitions in four studies (Gholamzadeh et al., 2021; O'Malley et al., 2022; Sinsky et al., 2015; Walker et al., 2021). A positive satisfaction rating was also associated with implementing a pre-visit process in the study by Gholamzadeh et al. (2021).

Patient-Provider Relationship. The patient-provider relationship was discussed in all six articles reviewed. Gholamzadeh et al. (2021) found that pre-visit planning significantly impacted the patient-provider relationship. Pre-visit screenings allow the patient time to reflect on questions and answer difficult questions in detail (Glasner et al., 2021). In the systematic review by Glasner et al. (2021), pre-visit screenings enabled a more extensive disclosure of sensitive topics compared to a verbal clinician screening during their appointment. Additionally, in the

study conducted by O'Malley et al. (2022), there was an increase in patient interaction during their appointment.

Detection. Two studies discuss the potential for early detection of illness while using a pre-visit process, as the patients are more likely to disclose more sensitive information that may not be disclosed during a clinician interview (Gholamzadeh et al., 2021; Glasner et al., 2021).

Discussion

The six studies in this scoping review shed light on the positive impacts a pre-visit process can have in the primary healthcare setting. The review reinforces that pre-visit processes primarily focus on the adult population in the primary healthcare setting. A gap in the literature exists in mental health pre-visit processes. Therefore, the information extracted from the scoping review, which focuses on pre-visit processes in primary healthcare, was assessed for its potential use in pre-visit processes in mental healthcare.

Although all studies focused on pre-visit processes/planning/tools, there remain gaps in the understanding of the efficacy of electronic or paper pre-visit processes. Thus, further research specific to paper or electronic pre-visit methods in healthcare may be warranted.

The four overarching themes developed from the scoping review were (1) an increase in patient satisfaction and quality of care, (2) patient appointments were more fluent with smoother transitions between patients, which increased provider satisfaction, (3) there was a positive correlation in the patient-provider relationship when pre-visit processes were in place, and (4) a trend in early treatment and disease detection was noted.

Conclusion

Access to mental health in rural settings can be challenging. Maximizing available resources in resource-deficient regions requires creative strategies and implementation of processes to streamline the flow of patients through the system to get them the care they desperately need. A gap in literature exists in the mental health pre-visit process. The scoping review is suggestive that implementation of a pre-visit process may be beneficial to a rural primary care clinic that employs a sole psychologist, which may enhance the quality of care, patient and provider satisfaction, allow for a more potent therapeutic relationship between the provider and patient, help detect mental illnesses sooner, and streamline the appointment process to create a smoother workflow.

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CHAPTER TWO

PROJECT PROPOSAL

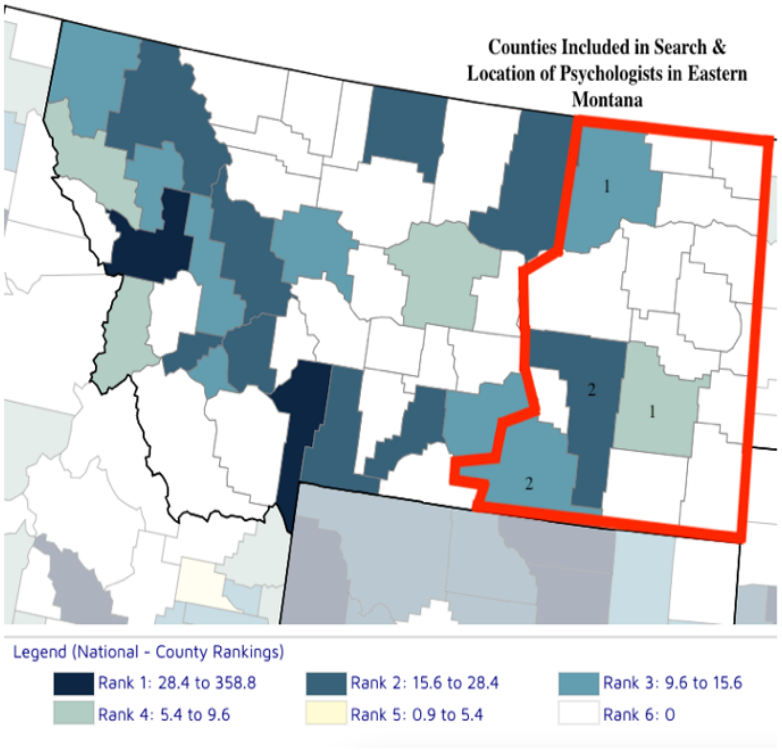
Introduction & Problem

Introduction

Access to mental healthcare in rural areas is a challenge many rural dwellers face. There are approximately 50 million rural dwellers in the United States (U.S.), which comprises 20% of the U.S. population (United States [U.S.] Census Bureau, 2018). Montana is currently ranked fourth highest in the nation for rural population at 46.6% (U.S. Census Bureau, 2018). The rural population already experiences higher death rates associated with the five leading causes of death in the U.S. (heart disease, cancer, unintentional injury, chronic lower respiratory disease, and stroke) when compared to the nonrural population (Centers for Disease Control and Prevention [CDC], 2017; Stellflug et al., 2022). The consequences of lack of healthcare access are especially acute in Montana, which has consistently been in the top five states for suicide rates for more than 40 years (University of Montana, 2023), and 35.1% of adults reported experiencing depression or anxiety (NAMI, 2021).

The number of psychologists in Montana is staggeringly low, with only 293 practicing psychologists (George Washington University, 2023). Six psychologists are available to cover Montana's 17 most eastern counties, spanning 48,301.6 square miles (George Washington University, 2023; Montana.gov, 2023), or approximately one psychologist per 8,050 square miles (Figure 1).

Figure 1. National – County Rankings with Number of Psychologists, Area Searched,
and Counties with Square Mileage (map provided by George Washington University).



Square Mileage & Available Psychologists in Eastern Montana Counties

County	Square Mileage	Psychologists
Valley	5061.7	1
Daniels	1426.5	0
Sheridan	1704.2	0
Roosevelt	2368.3	0
McCone	2682.1	0
Richland	2104.1	0
Dawson	2383.5	0
Garfield	4849.2	0
Prairie	1742.3	0
Wibaux	889.1	0
Rosebud	5025.4	2
Treasure	984.5	0
Custer	3793.0	1
Fallon	1622.5	0
Big Horn	5016.3	2
Powder River	3298.8	0
Carter	3348.1	0
Total:	**Total:**	**Total:**
17	**48301.6**	**6**

Eastern Montana has especially struggled to meet the population's mental healthcare needs. A rural primary care clinic in Eastern Montana has attempted to address its rural community's limited mental health resources by employing a psychologist. However, additional mental healthcare providers are needed and have yet to be found. Therefore, the healthcare organization seeks alternative solutions to improve providers' ability to effectively care for the patient population and potentially increase mental healthcare access. One area identified is the implementation of a pre-visit intake process to decrease the duration of an initial intake evaluation, which may ultimately allow the psychologist to see additional new mental health patients.

Problem Statement

A rural community in Eastern Montana does not have sufficient mental healthcare. A significant problem identified is only one psychologist is employed in the rural primary care clinic. During a patient's initial visit, the psychologist gathers demographic information, pertinent health history, current medications, and mental health background. Currently, the evaluation process can span several appointments before a diagnosis is reached and treatment can begin. A pre-visit process can potentially streamline the psychologist's work process, increasing the time the psychologist has to focus on the patient and start formulating a treatment plan. This streamlined process could decrease the initial intake appointment time in the future, allowing the psychologist to see additional patients. Implementing a pre-visit process has also been shown to increase the patient's quality of care and overall satisfaction (Gholamzadeh et al., 2021; Glasner et al., 2021; Hagerman et al., 2015; Sinsky et al., 2015; Walker et al., 2021).

Organizational Microsystem Assessment

The site for this quality improvement (QI) project is a rural Eastern Montana primary care clinic that staffs a single psychologist. Key stakeholders for the QI project include the psychologist, office staff, and nurse manager. While interviewing the psychologist, it was quickly discovered that no pre-visit process was currently in place. A meeting with the nurse manager determined that the primary clinic currently mails pre-visit directions, screenings, and information for their primary care services but not mental health services.

Currently, no pre-visit process is in place to help the psychologist or patient prepare for the initial mental health evaluation appointment. The psychologist acknowledges the need for a standardized pre-visit process and practices patient-centered care. The direct outcome of the study conducted by Gholamzadeh et al. (2021) showed pre-visit planning and screenings enhanced the quality of care and patient-provider communication in a patient-centered care system. Based on the scoping review findings, it was decided to implement a pre-visit Mental Health History Questionnaire (MHHQ) designed to match the psychologist's current workflow to gather pertinent information and history for review before seeing the patient (see Appendix B and C).

An informal patient analysis revealed the psychologist is seeing approximately 4.5 new patients monthly. The psychologist currently estimates it takes him four hours (initial evaluation appointment and the subsequent two appointments) to gather mental health history. By implementing a pre-visit MHHQ, the psychologist would gather and review much of the required information before the patient’s initial appointment.

In taking the patient demographics and rural location of the clinic into consideration, the ideal MHHQ implementation platform was discussed. Providing electronic access through the clinic's Patient Portal or by mail was discussed with key stakeholders. In a cross-sectional study conducted by Ramesh et al. (2023), rural locations often lack broadband and tablet access. Ultimately, a paper mailed MHHQ was deemed more suitable for this rural clinical. The QI initiative introduces a structured new patient intake process for mental health, aiming to provide a standardized approach for new mental health patients at the rural Eastern Montana primary care clinic.

Quality Improvement Model

The Iowa Model (The Iowa Model Collaborative, 2017; see Appendix D) was selected for the QI project of implementing a pre-visit process for mental health patients in an Eastern Montana rural primary care clinic due to its heuristic attributes that focus on improving patient quality of care (The Iowa Model Collaborative, 2017). The structured implementation of a pre-visit MHHQ will assist the psychologist and patient in better preparing for their initial evaluation. A pre-visit questionnaire has been shown to increase patient satisfaction, enhance communication and quality of care, improve workflow, decrease time to treatment, and improve prevention and detection in patients (Gholamzadeh et al., 2021; Glasner et al., 2021; Sinsky et al., 2015; Walker et al., 2021).

Purpose Statement & Specific Aims

Purpose Statement

The purpose of the QI project is to design, implement, and evaluate the pre-visit MHHQ. The pre-visit MHHQ may improve workflow, increase patient satisfaction, enhance communication and quality of care, decrease time to treatment, and improve prevention and detection of mental health illnesses in patients (Gholamzadeh et al., 2021; Glasner et al., 2021; Sinsky et al., 2015; Walker et al., 2021).

Specific Aims

The QI project aims to increase access to mental healthcare services in the rural eastern Montana community. Short- and mid-term aims are to ensure a minimum of 90% of new mental health patients are mailed a pre-visit packet containing an MHHQ within two days of their referral being accepted, and 70% of new mental health patients will return the completed MHHQ to the primary clinic before or at the time of their initial appointment. Please refer to Table 1 and Table 2 for specific short- and mid-term SMART goals.

Methods

Implementation Summary

The proposed quality improvement project of implementing a mental health pre-visit process in a rural Montana primary care clinic with limited mental health access aligns with evidence-based practice (EBP). The Iowa Model will guide a process change scheduled to start on January 19 and conclude on March 1, 2024. The process change will include any new mental health patient referral accepted by the psychologist at the primary clinic during the designated

time. The DNP student will be on site for data collection at specified times. No patient-identifiable data from the clinical site will be collected. Pre-visit packets containing patient directions and a Mental Health History Questionnaire (MHHQ) will be mailed to all new mental health patients within two days of the psychologist accepting the referral. The MHHQ asks the patient to answer all questions as thoroughly and accurately as possible. Key clinical activities and action steps include educating staff on process change, implementing the new mental health patient pre-visit process, and evaluating the process change at weeks three, six, and as needed. Due to the short duration of the QI project, limitations exist on long-term goals.

Intervention and Implementation

The Iowa Model Revised: Evidence-Practice to Promote Excellence in Healthcare (Appendix D) was used to guide the intervention and implementation of the QI project with permission from Iowa Hospitals and Clinics (Iowa Model Collaborative, 2017). There are seven steps in the Iowa Model. However, due to the short duration of the QI project, step six will only occur if the process has a positive effect on the clinic and is deemed appropriate for adoption. Due to the short duration of the QI project, the facility will decide whether to move forward with process integration and sustain the practice change after the conclusion of the QI project. The DNP student will use step seven to disseminate the results of the QI project.

Step One. *Identify Triggering Issues/Opportunities.* A clinical issue of the lack of a pre-visit process for new mental health patients in a rural Eastern Montana primary care clinic was identified. An EBP change was desired while discussing workflow processes with the lone psychologist and clinical manager at the Eastern Montana rural primary care clinic. The rural

primary care clinic prides itself on a high patient care and satisfaction philosophy, and the lack of a new mental health patient pre-visit procedure did not meet the facility's philosophy of care.

Step Two. *State the Question or Purpose.* The purpose of the QI initiative is to implement and assess a new mental health patient pre-visit process. The new process includes staff education on pre-visit process change and mailing a pre-visit packet containing patient instructions and an MHHQ to new mental health patients (see Appendix B and Appendix C). The QI initiative equips the psychologist with the patient's mental health history before being seen to potentially improve workflow, increase patient satisfaction, enhance communication and quality of care, decrease time to treatment, and improve prevention and detection of mental health illnesses in patients.

Step Three. *Form a Team*. Key stakeholders for the QI project include the psychologist, office staff, and nurse manager. The primary role of the nurse manager will be to mail a packet including instructions, MHHQ, and a return envelope as soon as a mental health referral is received. When the completed MHHQ is received, the nurse manager will notify the psychologist by giving the packet directly to the psychologist to ensure there is time for the information to be reviewed before the patient's initial appointment.

Step Four. *Assemble, Appraise, and Synthesize Body of Evidence.* A scoping review was conducted in which available literature was assembled, appraised, and synthesized. Although a gap in literature was noted in the mental health pre-visit process, sufficient evidence was found to support the benefits of pre-visit processes in primary healthcare, which will be applied when implementing a pre-visit mental health process. The scoping review suggested that implementing

a pre-visit process may benefit a rural primary care clinic that employs a sole psychologist. The new process has the potential to enhance the quality of care, patient and provider satisfaction, foster a therapeutic relationship between the provider and patient, detect mental illnesses sooner, and streamline the appointment process to create an improved workflow (Gholamzadeh et al., 2021; Glasner et al., 2021; Sinsky et al., 2015; Walker et al., 2021).

Step Five. *Design and Pilot the Practice Change.* Screening tools may be especially valuable for quickly identifying differential diagnostics for major depressive disorder, alcohol disorders, and post-traumatic stress disorders (Shields et al., 2021). Due to inconsistent internet access in the rural location (Ramesh et al., 2023), it was decided to implement the new mental health patient pre-visit packet by mail rather than electronically. In addition, the pre-visit process change will only be implemented for new mental health patients seen by the psychologist. All new mental health patients will be mailed a new intake packet within two days of the psychologist accepting their referral. The new mental health patient intake packet will include the facility's standard patient instructions and a specific MHHQ, dependent on whether they are over 18 (see Appendix B) or under 18 years old (see Appendix C).

The American Psychiatric Association Practice (APA) Guidelines for the Psychiatric Evaluation of Adults and Pediatrics (2016) were used to develop a custom mental health background history and questionnaire designed to follow the charting flow of the mental healthcare provider at the outpatient clinic. The questionnaire is designed to obtain information about the patient's background and current problem(s) to assist in the initial evaluation and save time in the face-to-face session. The MHHQ asks the patient to attempt to answer all questions as thoroughly and accurately as possible. The information provided from the MHHQ will be used in

their medical record and will be protected under HIPAA. The MHHQ allows patients time to reflect on questions rather than answering them during the psychologist's interview. In the systemic review conducted by Glasner et al. (2021), pre-visit screenings, such as the MHHQ, enable greater patient disclosure of sensitive topics as the patients have time alone to reflect on questions and to provide detailed answers. The initial evaluation form will be used as a screening tool to help obtain mental health background history and present concern(s) (APA, 2023).

The MHHQ will be constructed in the following order per the request of the psychologist and according to the APA Guidelines for the Psychiatric Evaluation of Adults and Pediatrics (2016):

- Presenting Concern(s) (History of Present Illness)
- Family History
- Personal and Social History
- Education
- Work History
- Substance Use History
- Mental Health History
- Medical History
- Therapy Goal

The QI project will be evaluated at weeks three and six post-implementation, assessing the previously discussed short- and mid-goals. Frequent communication will be maintained with the psychologist to address real-time challenges and maintain the adaptability of the QI project. Feedback from the psychologist will be invaluable in assessing the pre-visit process change,

including the MHHQ's suitability in capturing all desired or required patient pre-visit information.

Step Six. *Integrate and Sustain the Practice Change*. If the initial process has a positive effect on the clinic and is deemed appropriate for adoption, it will be permanently implemented. Expanding the platform availability of desired mental health screenings may also be assessed at this time. However, modifications may be necessary if the process change is not feasible or does not positively affect workflow, communication, and time to treatment.

Step Seven. *Dissemination.* The process change results will be presented to the DNP student's scholarly project board after the conclusion of the QI project. The DNP student will disseminate the knowledge gathered during the QI project and present the final analysis.

Change is often unwelcome and perceived as unfavorable. Therefore, identifying anticipated barriers when implementing a change is crucial to the success of any QI project. Office staff buy-in has been identified as a potential barrier for the QI project. To navigate the barrier, the DNP student will integrate regular communication and just-in-time education for the office staff on implementing the new mental health pre-visit process. Additional challenges, such as lack of office staff, could present further barriers. A potential logistical challenge includes the psychologist not reviewing the patient's pre-visit MHHQ before their initial appointment due to lack of time or the patient's completed documents not being returned before their visit. The barrier to the psychologist scheduling time to review new patient MHHQs is the uncertainty of when or if the MHHQs will be returned. The nurse manager has volunteered to contact new mental health patients who have not returned their completed MHHQ one week before their scheduled appointment. Additionally, the diversity of patient cultural backgrounds and socio-

economic statuses may cause varied perceptions of trust, which can affect participation in completing mental health screening forms.

Evaluation and Analysis

The project was deemed exempt by the Montana State University (MSU) IRB, and the site representative's approval was obtained from the psychologist and nurse manager. The DNP student will collect data on the new mental health patient packets mailed by staff versus completed packets returned by the patient before or at the time of their initial appointment. No patient health information or patient identifying information will be collected during the project. There will be no direct patient contact during the QI project.

The process will be evaluated at weeks three and six post-implementation through informal meetings with the psychologist, nurse manager, and office staff. Table 1 provides the QI project's SMART goals. At the end of six weeks, the project will be evaluated based on the following goals:

- The psychologists and 90% of the office staff will review and sign the New Mental Health Patient Pre-Visit Process.
- 90% of all new mental health patients will be mailed a pre-visit packet containing patient instructions and an MHHQ within two days of their referral being accepted.
- 70% of new mental health patients will return the completed MHHQ to the primary clinic before or at the time of their initial appointment.
- The psychologist and office staff will meet with the DNP student to review and assess the New Mental Health Patient Pre-Visit Process.

The long-term goals of this project are a decrease in the psychologist's initial evaluation appointment durations and an increase in the number of new mental health patients the psychologist sees monthly. The project's overarching goal is to increase access to mental healthcare services. While evaluating these goals is beyond this project's scope, it may be accomplished by the facility continuing to follow the Iowa Model and proceeding with integrating and sustaining the practice change (Iowa Model Collaborative, 2017). If the project is successful, the facility plans to build and implement an electronic MHHQ in their Patient Portal.

Table 1. SMART Goals

<table>
<tr><td colspan="3">SMART Goal #1: By March 1, 2024, the psychologists and 90% of the office staff will review and sign the New Mental Health Patient Pre-Visit Process.</td></tr>
<tr><td colspan="3">▪ This goal is set for the psychologist and 90% of office staff, as it is hypothesized that some staff may be unavailable between the QI project implementation and March 1, 2024.
▪ The DNP student will be on-site as needed to educate the available office staff and psychologist on the New Mental Health Patient Pre-Visit Process.
▪ The DNP student will reiterate the need for staff to review the New Mental Health Patient Pre-Visit Process and sign the completion checklist located on a clipboard hanging in the office.
▪ If there is still staff needed to review and sign the New Mental Health Patient Pre-Visit Process the DNP will send a final email to remind all remaining staff.</td></tr>
<tr><td>Data to be Collected</td><td>Method of Collection and who is responsible</td><td>Planned Data Analysis</td></tr>
<tr><td>Office staff who have reviewed and signed off on the New Mental Health Patient Pre-Visit Process.</td><td>DNP student will track information on an Excel Spreadsheet</td><td>Descriptive analysis by rate calculation

Denominator – number of staff (n=6)

Numerator – number of office staff who have signed off on the New Mental Health Patient Pre-Visit Process.</td></tr>
</table>

Table 1. SMART Goals continued

<table>
<tr><td colspan="3">SMART Goal #2: Between January 19, 2024, and March 1, 2024, 90% of all new mental health patients will be mailed a pre-visit packet containing patient instructions and an MHHQ within two days of their referral being accepted.</td></tr>
<tr><td colspan="3">▪ This goal is set at 90% at the three-week post-implementation evaluation of the New Mental Health Patient Pre-Visit Process as the psychologist sees an estimated 3 – 4 new mental health patients monthly. If no new mental health patient referrals are received during this time this Mid-Term SMART goal will be considered null and will not count as a negative result on the QI project.</td></tr>
<tr><td>Data to be Collected</td><td>Method of Collection and who is responsible</td><td>Planned Data Analysis</td></tr>
<tr><td>Number of new mental health patients.

Packets sent out and the date they were sent.</td><td>DNP student will track information on an Excel Spreadsheet. The office nurse manager will track the number of new mental health patients along with if a packet was sent out and the date it was sent. The office nurse manager will be provided a log sheet to track patients and dates.</td><td>Descriptive analysis by rate calculation

Denominator – new mental health patients

Numerator – number of packets sent out</td></tr>
<tr><td colspan="3">SMART Goal #3: By March 1, 2024, 70% of new mental health patients will return the completed MHHQ to the primary clinic before or at the time of their initial appointment.</td></tr>
<tr><td colspan="3">▪ Due to the short duration of the QI project, a goal was set for 70% of new mental health patients over 6 weeks to return their completed MHHQ before or at the time of their initial visit.
▪ Audit reports will be done at three and six weeks to evaluate the MHHQ and the number of completed MHHQs returned before the initial patient visit.
▪ The New Mental Health Patient Pre-Visit Process will be evaluated at three and six weeks to determine if any barriers or opportunities for improvement exist in the process change.
▪ Two weeks before the patient’s appointment, the office nurse manager will review whether the patient returned the completed MHHQ. If it has yet to be returned, the office nurse manager will attempt to contact the patient to ask if they have any questions on the form and remind them to complete and return the form as soon as possible.</td></tr>
</table>

Table 1. SMART Goals continued

Data to be Collected	Method of Collection and who is responsible	Planned Data Analysis
Number of new mental health patients sent the pre-visit package and the number of completed MHHQs returned prior to the patient's initial visit.	The DNP student will be responsible for collecting the desired information by meeting with the office nurse manager weekly to collect data. The office nurse manager will track packets sent out and packets returned. An Excel spreadsheet has been created to track information.	Descriptive analysis by rate calculation Denominator – number of packets sent out Numerator – number of packets returned prior to their initial appointment.
SMART Goal #4: By March 1, 2024, the psychologist will meet with the DNP student to review and assess the New Mental Health Patient Pre-Visit.		
▪ At the end of six weeks, the psychologist and office staff will meet with the DNP student to discuss the New Mental Health Patient Pre-Visit Process and evaluate whether the process will be hardwired into the new mental health patient process flow. ▪ The DNP student will meet with the office nurse manager, psychologist, and office staff weekly to discuss the process and evaluate any opportunities for improvement on the QI project.		
Data to be Collected	**Method of Collection and who is responsible**	**Planned Data Analysis**
The office staff and psychologist's satisfaction rating with the new process and overall thoughts/feedback about the implementation of the New Mental Health Patient Pre-Visit and if any alterations need to be made.	Informal – rating scale 1-5 with satisfaction of the New Mental Health Patient Process with open-ended responses that include thoughts/feedback on the new process. The DNP student will track satisfaction scores through an Excel Spreadsheet and present qualitative thematic findings on summary of feedback.	On average office staff rated ___ (1 unsatisfied 5 extremely satisfied) Psychologist rated ___ (1 unsatisfied 5 extremely satisfied) Average rating will be presented with a summary of feedback.

Safety and Confidentiality

With no anticipated increased safety risks for the patient, informed consent is unnecessary for patient participation in the QI project. The rural Eastern Montana primary care clinic stakeholders have given full support and approval to the QI project. The nurse manager and DNP student will manage data collection. The nurse manager has volunteered to track accepted patient referrals, packets sent, and packets returned. The DNP student will communicate regularly with the nurse manager and record weekly progress reports using a password-protected Excel spreadsheet. The nurse manager will contact the patient one week before their appointment if their MHHQ still needs to be completed and returned. The DNP student will be on site for data collection. Patient-identifiable data will not be removed from the clinical site.

Data collection will include the number of mental health patient packets mailed by staff and the number of mental health packets returned by the patient before or at the time of their initial appointment. As part of the QI project's measures based on the patient's pre-visit completion of the MHHQ, confidential patient information will not be discussed or disclosed. The DNP student's data will not include patient-identifiable or protected health information. Upon completion of a new mental health patient's initial evaluation, the MHHQ will be sent to medical records, scanned, and added to the patient's permanent medical record.

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CHAPTER THREE

QUALITY IMPROVEMENT MANUSCRIPT

Contribution of Authors and Co-Authors

Manuscript in Chapter 3

Author: Tori Rae Kaufman, DNP-PMHNP-S

Contributions: Jamie M. (Besel) Nelson, PhD, MN, RN

Co-Author: Dr. Margaret Hammersla

Manuscript Information

Tori Rae Kaufman

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Abstract

Background: United States rural residents have limited access to mental healthcare. Nearly half of Montana's population is designated rural. Maximizing resources in resource-deficient regions requires creative strategies and process implementation to streamline workflow to achieve sufficient care.

Local Problem: A rural Eastern Montana primary clinic has attempted to address its rural community's limited mental health resources by employing a psychologist. There is no new mental health patient pre-visit process at the project site. The purpose of the project was to implement a pre-visit process to improve the psychologist's ability to effectively care for the patient population.

Methods: The Iowa Model Revised guided this quality improvement (QI) project. Process changes evaluations occurred at week three, week six, and postintervention.

Interventions: A new mental health patient pre-visit process and packet were created, including a standardized Mental Health History Questionnaire (MHHQ). Educational in-services and staff completion checklists were performed to promote adherence to the process change.

Results: The project goals were achieved: 95% of the new mental health patient pre-visit packets were mailed within two days of referral acceptance, 75% of new mental health patients returned their MHHQs, and 100% of staff reviewed and signed the new mental health patient pre-visit process.

Conclusion: The project improved the psychologist and staff's new mental health patient workflow process. The psychologist noted an increase in patient preparedness and satisfaction, a decrease in time to diagnosis/treatment, and a slight decrease in the initial mental health evaluation duration.

Clinical Problem

Access to mental healthcare in rural areas is a challenge many rural residents face. In the United States (U.S.), 20% of the U.S. population live in areas designated as rural (U.S. Census Bureau, 2018). Montana is currently ranked fourth highest in the nation for rural population at 46.6% (U.S. Census Bureau, 2018). Montana has consistently been in the top five states for suicide rates for more than 40 years (University of Montana, 2023). Over 35.1% of Montana adults report experiencing depression or anxiety (NAMI, 2021). Montana has only 293 practicing psychologists (George Washington University, 2023). Eastern Montana has especially struggled to meet the population's mental healthcare needs. A rural primary care clinic in Eastern Montana has attempted to address its rural community's limited mental health resources by employing a psychologist. However, additional mental healthcare providers are needed and have yet to be found. Therefore, the healthcare organization seeks alternative solutions to improve the psychologist's ability to effectively care for the patient population and potentially increase mental healthcare access.

Streamlining the psychologist's workflow by implementing a mental health pre-visit process to decrease the initial appointment duration would allow the solo psychologist to see additional patients. Additionally, implementing a pre-visit process has been shown to increase the patient's quality of care and overall satisfaction (Gholamzadeh et al., 2021; Glasner et al., 2021; Hagerman et al., 2015; Sinsky et al., 2015; Walker et al., 2021).

Review of Literature

Access to mental healthcare in rural settings can be challenging. Maximizing available resources in resource-deficient regions requires creative strategies and process implementation to streamline workflow to achieve sufficient care. A gap in literature exists in the mental health pre-visit process. Therefore, the information extracted from the scoping review focused on pre-visit processes in primary healthcare and their potential use in mental health pre-visit processes.

Evidence-based literature recommended a pre-visit process to enhance patient quality of care and satisfaction (Gholamzadeh et al., 2021; Glasner et al., 2021; Hageman et al., 2015; Walker et al., 2021), increase provider's time spent assessing the patient (Gholamzadeh et al., 2021; Glasner et al., 2021; Hageman et al., 2015; O'Malley et al., 2022; Sinsky et al., 2015), foster a therapeutic patient/provider relationship (Gholamzadeh et al., 2021; Glasner et al., 2021; O'Malley et al., 2022), aid in earlier illness detection (Gholamzadeh et al., 2021; Glasner et al., 2021), and streamline the appointment process creating an improved workflow (Gholamzadeh et al., 2021; O'Malley et al., 2022; Sinsky et al., 2015; Walker et al., 2021). Gholamzadeh et al. (2021) showed pre-visit planning and screenings enhanced the quality of care and patient-provider communication. Recommendations from the literature were as follows: a pre-visit process, including planning and screening tools, would be beneficial to the psychologist, staff, and patient.

Conceptual Framework

The Iowa Model Revised was selected for its foundation in evidence-based practice (EBP) as the framework for this QI project. The Iowa Model Revised is a seven-step framework

that focuses on problem-focused triggers using a heuristic approach to improving patient quality of care (The Iowa Model Collaborative, 2017). The project spanned six weeks, from January to March 2024. The triggering issue was discovered during an informal workflow assessment when the rural clinic did not have a new mental health patient pre-visit process. After identifying that no pre-visit process existed, the following four steps guided the project in establishing a purpose, forming a team, building a body of evidence, and designing and piloting a practice change. The facility decided to integrate and sustain the practice change at the conclusion of the project. The process change, findings, and conclusion were presented to the DNP student's scholarly project committee at the conclusion of the QI project.

Aims/Purpose of Project

The purpose of the QI project was to design, implement, and evaluate the pre-visit Mental Health History Questionnaire (MHHQ). The project aimed to increase access to mental healthcare services in the rural eastern Montana community. The short-term aim was to have a minimum of 90% of staff review and sign off on the new mental health pre-visit process. Midterm aims were at least 90% of new mental health patients were mailed a pre-visit packet containing an MHHQ within two days of their referral being accepted, and 70% of new mental health patients returned their completed MHHQ to the primary clinic before or at the time of their initial appointment.

Methods

Context

The project was conducted in a rural Eastern Montana primary care clinic. The clinic employs one psychologist, a clinic manager, and four office staff for mental health. The nurse manager and office staff also assist the family practice providers. The psychologist sees an estimated seven patients daily and performs roughly three to four new patient intakes monthly. However, a Licensed Clinical Professional Counselor (LCPC) was hired during week two of the intervention phase, increasing the projected sample size from six to 23 patients during the six-week project. The sample size included two patient no-shows and three patient appointments falling outside the project's timeline.

Intervention/Practice Change

The QI project consisted of four interventions: 1) creating a new mental health patient pre-visit process, 2) designing a standardized MHHQ, 3) completing staff educational in-services, and 4) creating a staff sign-off checklist to promote adherence to the process change. Patient inclusion criteria were new mental health patient referrals and provider acceptance of referral regardless of patient demographic. One office staff served as a project champion in applying the mental health patient pre-visit process in the clinic. The project champion's responsibilities included tracking accepted new mental health patient referrals, scheduling intake appointments, mailing intake packets within two days of patient acceptance, contacting patients prior to their appointments if their MHHQ has not been completed and returned, and tracking completed MHHQs.

During the intervention phase, the DNP student conducted weekly check-ins with the office staff and psychologist to address questions and help with adherence. At weeks three and six of the intervention phase, the DNP student was onsite to evaluate the QI process and run data analysis. During the first informal meeting, the office staff and psychologist reviewed and signed the new mental health pre-visit process. The subsequent meetings were used to present current findings and evaluate current processes. At the conclusion of the project, the DNP student conducted a satisfaction survey and collected qualitative data from the psychologist and project champion.

Measures

The short-term goal was met preintervention to have at least 90% of staff review and sign the new mental health patient pre-visit process. The following two mid-term goals were measured postintervention to assess if new mental health patient packets were mailed within two days of referral acceptance and if completed MHHQs were returned by the patients before or at the time of their initial appointment. Before the QI project, no new mental health pre-visit process existed, therefore preintervention measures could not be collected. A computer based survey using a Likert scale (1 unsatisfied and 5 extremely satisfied) to rate satisfaction with the pre-visit process and open-ended response questions was sent to the project champion and psychologist to assess barriers, limitations, and feedback on the QI project.

Analysis

Data were collected pre-project, at three weeks, six weeks, and postintervention. Data collected included MHHQ packet disbursement, return rates, and provider/staff satisfaction. Data were analyzed using calculation functions of Excel.

Ethical Considerations

Montana State University Institutional Review Board (IRB) reviewed and found the project exempt, deeming it a quality improvement. No patient charts were accessed, and there was no direct patient contact during the QI project. All data collected was de-identified and stored in a password-protected Excel spreadsheet at the project site.

Results

Staff education and postintervention survey completion goal was met at 100% (n=6). In total, 23 (n=23) packets were mailed, and 15 (n=15) packets were returned during the six-week intervention phase. The goal to achieve a minimum of 90% of new mental health pre-visit packets mailed within two days of referral acceptance was met at the three-week (100%, n=6) and six-week analysis (96%, n=19). The goal to have 70% of completed MHHQs returned before or at the time of the initial appointment was not met at week three (69%, n=11) or week six (65%, n=15) analysis, as illustrated in Figure 2.

Due to the rural location and limited staff involved during the intervention phase, only the psychologist and project champion staff were asked to complete an informal interview and the computer based survey to assess satisfaction with the QI project. Table 2 shows the satisfaction scoring with the new mental health patient pre-visit process, MHHQ form, and staff communication. Additionally, the staff found the mental health pre-visit process (1) assisted in evaluating and scheduling the patient, (2) streamlined the patient's initial visit, (3) enhanced the patient's initial visit, (3) having the patient complete the MHHQ before the initial appointment decreases time to diagnosis and treatment, (4) prepares the patient for their initial appointment,

(5) and could potentially decrease the time an initial mental health evaluation takes. Unanimous feedback was to continue using the mental health pre-visit process and MHHQ forms.

Figure 2. Comparison of SMART Goals set at the beginning of the QI project and data analysis at weeks three and six postimplementation.

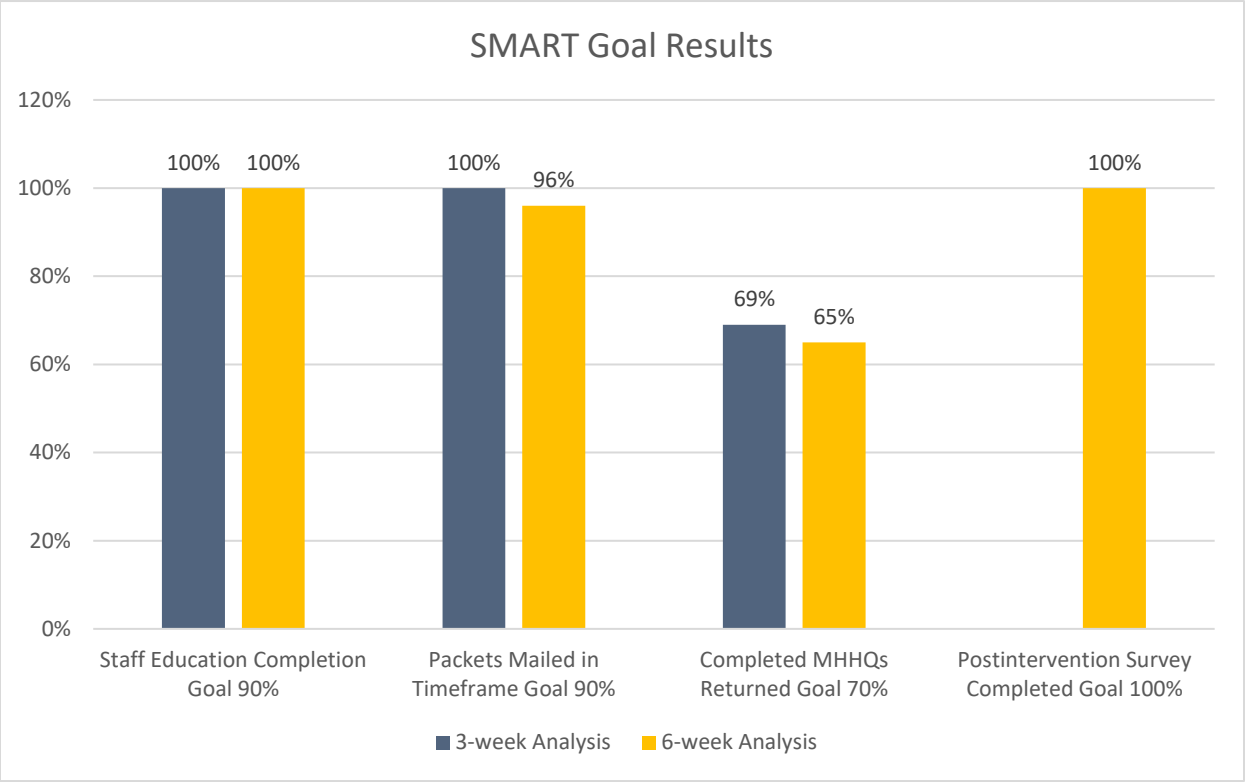

Table 2. Postintervention psychologist and project champion satisfaction survey results.

On a scale of 1-5 please rate your overall satisfaction with the pre-visit process and MHHQ form.

Clarity of Pre-Visit Process	Extremely Satisfied5
Implementation Process	Extremely Satisfied5
MHHQ Form Readability	Extremely Satisfied5
MHHQ Form Appearance	Extremely Satisfied5
MHHQ Usability	Extremely Satisfied5
Staff Communication	Satisfied4

Clarity of Pre-Visit Process	Extremely Satisfied5
Implementation Process	Satisfied4
MHHQ Form Readability	Extremely Satisfied5
MHHQ Form Appearance	Extremely Satisfied5
MHHQ Usability	Extremely Satisfied5
Staff Communication	Neutral3

Discussion

The project confirmed implementing a new mental health patient pre-visit process streamlined the appointment process to create a smoother workflow. Although not formally assessed by the project, stakeholders found the project enhanced quality of care and overall satisfaction, allied for a strong therapeutic relationship, and likely decreased time to diagnosis and treatment. The goal to achieve a minimum of 90% of new mental health pre-visit packets mailed within two days of referral acceptance was met at 96%. The goal to have 70% of completed MHHQs returned before or at the time of the initial appointment was not met at 65%.

With more time and analysis of the QI project, there is potential to see increased access to mental healthcare, but given the short project timeline, this could not be accurately assessed. Furthermore, the psychologist felt the pre-visit process would ultimately allow a shortened intake appointment and increase new patient intakes in the future. A standardized MHHQ allowed the psychologist and newly hired LCPC to communicate effectively on new patient intakes. Establishing an evidence-based foundation, building a strong team, open communication, teamwork, and a supportive environment are crucial to the success of any organizational process change.

Limitations

Short staffing was a fundamental limitation of the project. The designated point of contact shifted in the preintervention phase and involved the front office. Another limitation was the remote location of the project and limited resources available during the preintervention phase. Discussions of an electronic pre-visit screening tool were had with Information Systems (IS), but due to time constraints and technology limitations for patients, it was decided to implement a paper pre-visit process for the project. Further research specific to paper or electronic pre-visit methods in healthcare may be warranted. The addition of a new LCPC on intervention week two generated an unanticipated challenge that was integrated into the plan. To address the addition of the LCPC, no changes were made with the exception that the LCPC's patients would now be included in this QI project.

The last limitation was the QI project timeline ended with three incomplete patient data collections due to the continuous nature of scheduling and seeing new patients. The last three patients were included in the data analysis, which impacted the percentage of patients who

returned their completed MHHQs. Included in the 23 packets sent, two patients were no-shows, and three patient appointments were outside of the project's timeline. Thus, if outliers were removed, there would be an 83% return rate of completed MHHQs.

Recommendations

Access to mental health in rural settings can be challenging. Maximizing available resources in resource-limited regions requires creative strategies and the implementation of processes to streamline the flow of desperately needed mental healthcare. Implementing a pre-visit process is an evidence-based intervention with the potential to enhance the quality of care and satisfaction, a stronger therapeutic relationship, decreases the time to diagnosis and treatment, and a streamlined appointment process that creates a smoother workflow.

Conclusion

The QI project aimed to increase access to mental healthcare in a rural community by implementing a new mental health patient pre-visit process. Several benefits to rural mental healthcare were noted, including a streamlined appointment process and smoother workflow. Over time, the new mental health pre-visit process is expected to continue to enhance the quality of care and satisfaction, build a stronger therapeutic relationship, and decrease the time to diagnosis and treatment of new mental health patients.

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CHAPTER FOUR

ADVANCED NURSING ESSENTIALS REFLECTION

Introduction

The American Association of Colleges of Nursing (AACN) initiated the Essentials of Doctor of Nursing Practice (DNP) in 2006 to outline core foundational competencies for all advanced practice nursing roles (American Association of Colleges of Nursing [AACN], 2006). MSU's DNP curriculum focuses on preparing future practitioners by enhancing their knowledge to improve nursing practice and patient outcomes while increasing leadership skills to strengthen nursing practice. The closing chapter of this quality improvement (QI) project is a personal reflection highlighting my achievements and experiences throughout my 1125 practicum and 675 clinical hours that exemplify my leadership skills over the last four years at Montana State University (MSU) through the DNP Essentials.

DNP Essential I: Scientific Underpinnings for Practice

DNP Essential I acts as a DNP education cornerstone, integrating advanced nursing knowledge and sciences to form the scientific underpinnings for nursing practice. It is essential for nurses seeking their DNP to possess a solid foundation in evidence-based practice (EBP). EBP provides a guide for advanced nursing practice through ethics, biophysical, psychosocial, analytical, and organizational science knowledge. The DNP must demonstrate the use of science-based theories and concepts while developing and evaluating new practice approaches (AACN, 2006).

MSU's advanced practice registered nurse (APRN) and DNP core courses contributed to my foundational scientific underpinnings for practice. For DNP Essential I, I applied knowledge from Advanced Health Assessment (N601) and Advanced Physiology and Pathophysiology (N602) during Diagnostic Reasoning (N607) while completing case studies. Furthermore, I used these scientific underpinnings to apply evidence-based practice during Advanced Clinicals I (N631), II (N632), III (N633), and IV (N634). As a DNP-prepared psychiatric mental health advanced practice registered nurse (DNP-PMHNP), I will strive to stay current on new psychiatric mental health research and follow EBP to ensure I provide the highest level of care.

DNP Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking

DNP Essential II focuses on the development and evaluation of evidence-based care delivery methods that meet current and future patient population needs while achieving quality healthcare and patient safety. Essential II also ensures the DNP graduate can apply principles of business, finance, economics, and health policy when developing and implementing practice initiatives to improve patient quality of care (AACN, 2006). In the Financing and Budgeting of Healthcare Systems (N613) course exemplar, I completed a financial project proposal on implementing Resuscitation Quality Improvement (RQI) in a remote, short-staffed critical access hospital during the COVID-19 pandemic. The financial proposal found that implementing RQI would improve the quality of basic life support cardiopulmonary resuscitation (BLS/CPR). In addition, four years postimplementation, the annual costs associated with BLS/CPR certification/recertification would decrease by nearly half. I provided an executive summary of

these findings to the critical access hospital, and RQI was purchased and implemented six months later.

My aforementioned proposal met DNP Essential II objectives by guiding me in developing and evaluating a plan to meet the current needs of improving CPR quality and patient outcomes, lessening current workloads, and supplying continuing education to staff while being financially responsible to the critical access hospital. Through my DNP educational journey, I gained valuable skill sets in healthcare finance and budgeting that will act as a guide to ensure my successful practice as a DNP in providing high-quality and cost-effective healthcare. As a DNP graduate, I will continue to center my practice around current evidence-based care delivery methods to promote patient safety and quality healthcare.

DNP Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice

DNP Essential III focuses on translating current evidence-based research into practice to achieve practice improvement and quality care outcomes (AACN, 2006). In Evidence-Based Practice I (N604) and II (N605), I acquired skills to appraise existing literature and evidence to improve practice and patient outcomes. N604 acted as an introduction to evaluating research evidence by conducting a Population, Intervention, Control, and Outcomes (PICO) project with a small group of peers. The PICO project focused on social media's effects on mental health in teens. The project taught me how to identify a clinical problem, conduct a scoping review, evaluate and compare scholarly articles, synthesize literature, provide recommendations, and present findings. N604 seamlessly transitioned to N605, and I continued to build my knowledge of EBP by conducting a more in-depth PICO project with a small group of peers on Cognitive

Behavioral Therapy (CBT) and pharmacologic treatment of chronic migraines. The PICO project required us to build evidence matrixes and Preferred Reporting Items for Systemic Reviews and meta-analyses (PRISMA) to generate evidence from various scientific fields. I learned to assess evidence of quality, credibility, validity, and uncertainty by building a PRISMA and evidence matrix. N605 also allowed me to disseminate findings to my peers through a PowerPoint presentation.

The knowledge gained from these courses transitioned into my Quality Improvement (QI) Project of implementing a mental health pre-visit process in a rural primary care clinic focused on mental healthcare. I brought together multiple facets of my didactic and clinical education to successfully implement a QI project that had a meaningful impact on mental healthcare in a rural setting. The integration of knowledge and skills I learned along my educational journey helped me to formulate a scholarly project proposal, implement the project, analyze project outcomes, and disseminate results. I now have first-hand experience demonstrating the significance scholarly research findings have on improving patient care and outcomes. I will carry these valuable lessons forward as a practitioner and mentor to future generations of practitioners.

DNP Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes

Essential VI focuses on the importance of interprofessional collaboration in the current complex multi-tiered healthcare system (AACN, 2006). To demonstrate competency in DNP Essential VI, I worked with a small group of peers during the Vulnerability and Healthcare in Diverse Communities (N614) course to develop a fictitious evidence-based process improvement

program to improve access to resources and screening tools for Montana's Native American youth population to improve patient and population health outcomes. Two critical objectives outlined in Healthy People 2030 were selected to guide our group's collaboration with existing healthcare, education, and tribal leaders. The fictitious evidence-based process improvement program explored opportunities to turn needs into preventative measures by providing proper channels to detect mental health at-risk children as early as possible.

Similarly, for my Scholarly QI project, I used evidence-based research to implement a mental health pre-visit process in a rural primary care clinic to improve patient and population mental health outcomes. The design and implementation of my QI project would not have been possible without interdisciplinary collaboration between myself, the psychologist, the project champion, facility administration, health information managers, information systems, my professor, and my chair. As a future DNP-PMHNP, I recognize the significance of interdisciplinary collaboration in achieving the best patient and population outcomes in my future practice.

DNP Essential VIII: Advanced Nursing Practice

Essential VIII focuses on advanced nursing practice, which ensures that the DNP graduate can demonstrate advanced skills by conducting an assessment and assessing, designing, implementing, and evaluating therapeutic interventions (AACN, 2006). The final DNP Essential was achieved through didactic and clinical hours. The didactic coursework provided the foundation for developing essential clinical and leadership skills. Advanced Clinicals I (N631), II (N632), III (N633), and IV (N634) allowed me to be mentored by a preceptor to demonstrate advanced levels of clinical judgment, therapeutic interventions, and evidence-based care learned

throughout my educational journey at MSU. The Advanced Clinical courses built my confidence in establishing a therapeutic relationship, assessing a mental health patient, diagnosing mental health disorders through DSM-V criteria, psychopharmacological interventions, and creating a tailored treatment plan. The Advanced Clinical courses have given me comfort and confidence in assuming the role of a DNP-PMHNP in a Montana frontier community.

Conclusion

My DNP journey has been a significant experience, including many ups and downs. Through perseverance and an overwhelming desire to fill a substantial healthcare need in my community, I have progressed through the program. In addition to the DNP-PMHNP coursework, I also completed the Nursing Education Certificate (NEC) Program, including Teaching Concepts for Nursing Educators (501), Effective Clinical Teaching (N502), Curriculum Development (N503), and Assessment and Evaluation of Education (N504). I hope to someday be able to share my passion for nursing and rural healthcare with future generations of nurses and nurse practitioners through education.

Throughout my DNP coursework at MSU's Mark and Robyn Jones College of Nursing, I acquired knowledge and skills while integrating the eight DNP essentials outlined by the ANCC into my professional development. The last four years of coursework prepared me to assume the role of an evidence-based practice champion and leader for quality improvement in the healthcare setting. Completing the DNP-PMHNP Program has given me the confidence to start my journey as an advanced practice provider. Through MSU's comprehensive DNP Program, I feel equipped to make a meaningful impact on psychiatric mental healthcare. As a DNP-prepared graduate and Bobcat Nurse, I am poised to fulfill the land grant mission of the MSU Mark and

Robyn Jones College of Nursing to enhance the health of the people of Montana, our nation, and the global community through education, creation of knowledge, and service.

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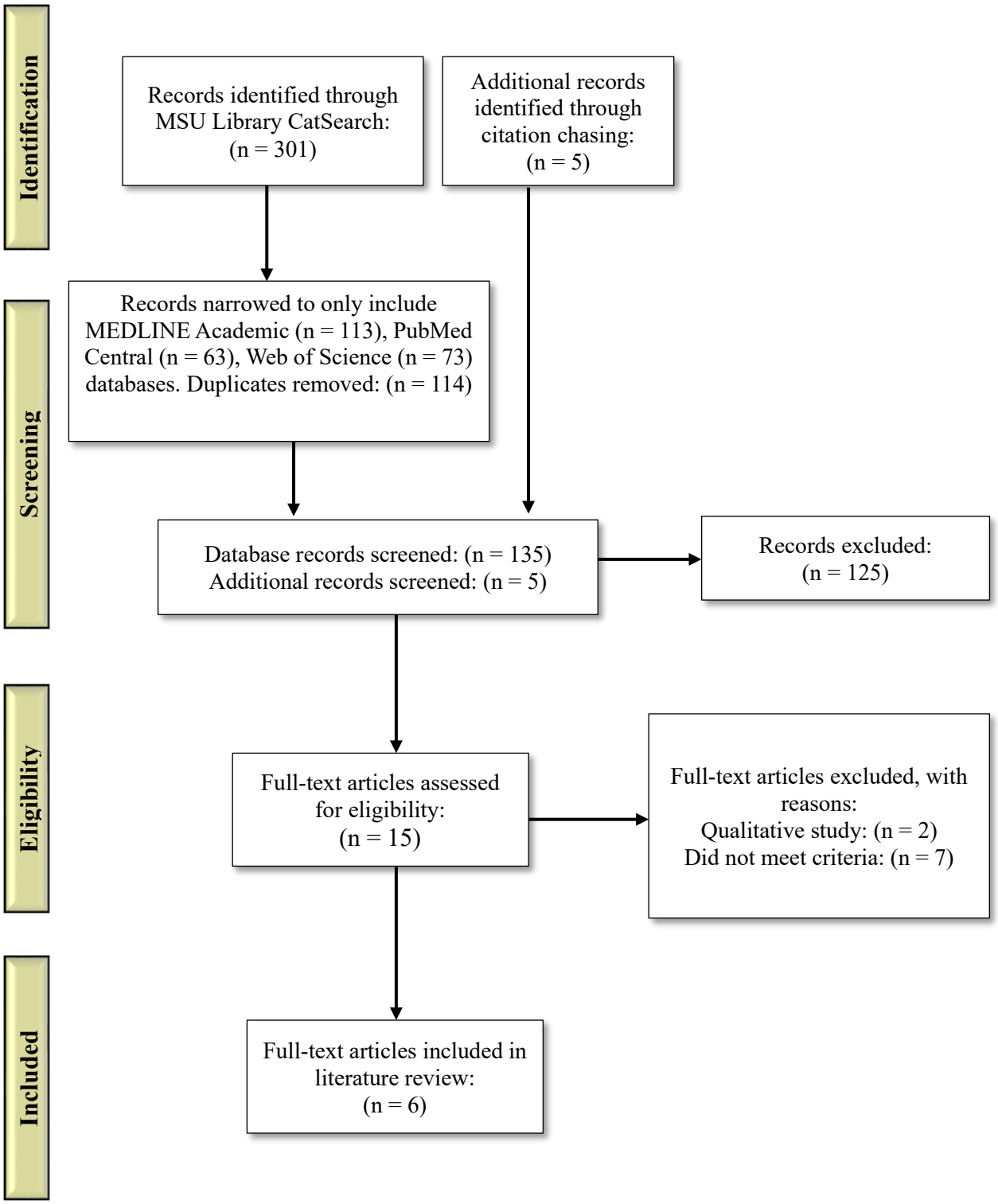
APPENDICES

APPENDIX A

PRISMA DIAGRAM

Figure A1. PRISMA Diagram



APPENDIX B

ADULT MENTAL HEALTH HISTORY QUESTIONNAIRE

Figure B1. Adult Mental Health History Questionnaire

Behavioral Health Intake Form - Adult

This questionnaire is designed to obtain detailed information about your background and current problem(s) to assist in the evaluation and save you time in the initial session. Please try to answer all questions as fully and accurately as possible. This information will become part of your permanent record and is protected by HIPAA.

Name: _____ Date of Birth: _____

Gender: _____ Race: _____ Age: _____

Home Address: _____ Home Phone: _____ ☐ Message

_____ Work Phone: _____ ☐ Message

Cell Phone: _____ ☐ Message

Please check box if a message can be left at these numbers.

Billing Address (if different): _____

_____

EMERGENCY CONTACT INFORMATION

Name: _____ Phone: _____ Relationship: _____

PRESENTING CONCERNS

Who referred you here? _____

What are your current concerns/reason for this referral? _____

_____

_____

_____

Please rate the severity of your problem(s):

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

Mild Distress — Moderate Distress — Severe Distress — Completely Incapacitated

When did your problem(s) begin? _____

What was going on in your life at that time? _____

_____

_____

Have you sought or received help for your problem(s)? ☐ Yes ☐ No *If Yes*, state what and when:

_____

Behavioral Health Intake Form - Adult

What seems to make things better? Worse? _____

_____

FAMILY AND SOCIAL HISTORY

1. What is your current marital status? _____
2. Have you been married before? ☐ Yes ☐ No *If Yes*, number of times: _____
3. Please list below the people who live with you:

Name	Age	Relationship

4. Do you have any children who do not live with you? ☐ Yes ☐ No _____
5. Any problems or concerns related to your home life/limitations in functioning? _____

_____

6. Do you feel your family has been a good source of support for you? _____
7. RELATIVES:

Number of brothers: _____ Ages: _____

Number of sisters: _____ Ages: _____

Are your parents still living? ☐ Yes ☐ No *If Yes*, how often do you have contact with them? _____

What was your home life like going up? _____

_____

_____

8. What kind of things do you like to do for fun? _____

_____

9. How often do you do something you find enjoyable? _____
10. How many close friends do you have? _____
11. Number of acquaintances? _____
12. How often do you get together with friends? _____

Behavioral Health Intake Form - Adult

13. Do you consider your friends to be a good source of support? ☐ Yes ☐ No _____

14. Do you affiliate with any particular religion? ☐ Yes ☐ No _____

15. Do you have any religious/spiritual concerns that you would like considered? ☐ Yes ☐ No _____

16. Do you have any cultural/racial/sexual preference issues you would like considered? ☐ Yes ☐ No _____

17. LEGAL BACKGROUND:

Have you ever been arrested? ☐ Yes ☐ No *If Yes*, list below:

Date of Arrest:	Charge:	Convicted?	Time Served?

Are you currently on probation or parole? ☐ Yes ☐ No *If Yes*, time remaining: _____

18. Are you currently involved in a lawsuit, divorce, or custody dispute? ☐ Yes ☐ No *If Yes*, please describe: _____

19. Are you in the process of filing a claim for disability or worker's compensation? ☐ Yes ☐ No

EDUCATION HISTORY

1. What is the highest level of school you have completed? _____

2. If more than high school, what was your major or field of study? _____

3. If less than high school, what was your reason for dropping out? _____

4. Were you ever held back or failed a grade? ☐ Yes ☐ No_____

5. Do you have a history of a learning disorder? ☐ Yes ☐ No *If Yes*, please specify: _____

6. Did you attend special education classes or have academic accommodations? ☐ Yes ☐ No

7. Were you ever suspended or expelled from school? ☐ Yes ☐ No

If Yes, please list number of times and reasons: _____

8. Did you have any problems with your behavior or conduct in school (e.g. bullying or fighting)? ☐ Yes ☐ No

9. Did you have a problem with excessive lateness or missed days? ☐ Yes ☐ No _____

10. Are there any problems or concerns related to your education? _____

Behavioral Health Intake Form - Adult

WORK HISTORY

1. What is your current job status?_____

   If unemployed, source of financial support: _____

2. If employed, type of job: _____

3. Are you satisfied with your current job? ☐ Yes ☐ No

   If No, what are you experiencing? _____

4. What type of jobs have you held in the past? _____

   _____

   _____

5. Have you ever been fired or dismissed from a job? ☐ Yes ☐ No *If Yes*, how many times? _____

6. What is the longest you have gone without a job?_____

7. What is the longest you have stayed at a given job?_____

8. Are you currently experiencing any financial difficulties?_____

9. Have you served in the military? ☐ Yes ☐ No

   If Yes, list the branch, MOS, and highest rank: _____

   Did you serve in combat? ☐ Yes ☐ No Type of Discharge: _____

MENTAL HEALTH HISTORY

1. Have you ever been to see a psychiatrist, PMHNP, counselor or psychologist? ☐ Yes ☐ No

   If Yes, please specify:

Date: Type of Service: Reason for Seeking Help/Diagnosis (if given):

_____

_____

_____

2. Have you ever been hospitalized for psychiatric problems or substance abuse? ☐ Yes ☐ No

   If Yes, please list dates and reason for hospitalization: _____

3. Have you ever used illicit drugs? ☐ Yes ☐ No *If Yes*, type of drugs used: _____

4. Have you ever had problems with alcoholism? ☐ Yes ☐ No_____

5. Have you ever abused prescription medication? ☐ Yes ☐ No _____

6. Do you have past or present problems with gambling? ☐ Yes ☐ No _____

Behavioral Health Intake Form - Adult

7. Have you ever attempted suicide? ☐ Yes ☐ No _____

8. Have you ever had a problem with suicidal thoughts or feelings? ☐ Yes ☐ No _____

9. Have you ever harmed yourself on purpose (e.g. cutting or burning)? ☐ Yes ☐ No _____

10. Have you ever been abused (physical, sexual, or emotional)? ☐ Yes ☐ No _____

_____

11. Have you ever been exposed to some sort of trauma (rape, violent crime, serious accident)? ☐ Yes ☐ No

_____

If Yes, does it still affect you in any way? _____

12. Have any members of your family been diagnosed with or treated for a psychiatric disorder (including mental retardation and substance abuse)? ☐ Yes ☐ No _____

MEDICAL HISTORY

1. Do you have a family doctor? ☐ Yes ☐ No _____

2. When was your last visit with a physician? _____

3. Are you currently diagnosed with any medical condition(s)? ☐ Yes ☐ No _____

4. Do you have any food or drug allergies? ☐ Yes ☐ No _____

5. Please list all current prescribed medications or treatments you are taking:

Medication:	Dose/Frequency:	Prescribing MD:	Reason for Taking:

6. Please list any over-the-counter medications (e.g. aspirin or herbal supplements) that you regularly use:

_____

_____

7. Do you have a history of any serious medical illnesses or major surgeries? ☐ Yes ☐ No

If Yes, please specify: _____

8. Have you ever experienced a head injury? ☐ Yes ☐ No

If Yes, please state when and nature of injury: _____

Behavioral Health Intake Form - Adult

Did you lose consciousness? ☐ Yes ☐ No *If Yes*, for how long? _____

Were you hospitalized for the injury? ☐ Yes ☐ No *If Yes*, for how long? _____

9. Have you ever had a seizure? ☐ Yes ☐ No _____
10. Have you ever lost consciousness for reasons other than a head injury? ☐ Yes ☐ No _____
11. Do you have any problems with vision or require glasses? ☐ Yes ☐ No _____
12. Do you have any problems with hearing? ☐ Yes ☐ No _____
13. Do you have problems with sexual functioning? ☐ Yes ☐ No _____
14. Do you have problems with sleep? ☐ Yes ☐ No _____
15. Do you have problems with appetite? ☐ Yes ☐ No _____
16. Do you have problems with weight gain or weight loss? ☐ Yes ☐ No

    If Yes, how much in the last month? _____ Are you trying to lose or gain weight? ☐ Yes ☐ No

    What is your height? _____ft. _____ in. What is your weight? _____ lbs.
17. Do you have problems with headaches? ☐ Yes ☐ No _____
18. Do you have problems with pain? ☐ Yes ☐ No _____
19. Do you have problems with stomach, bladder, or bowel functions? ☐ Yes ☐ No _____
20. How would you describe your current health? _____

Please indicate and describe any of the following symptoms you have experienced in the last month:

☐ Prolonged Depressed Mood: _____

☐ Feeling Worthless: _____ ☐ Feeling Hopeless: _____

☐ Excessive Guilt: _____ ☐ Loss of Interest or Pleasure: _____

☐ Loss of Energy: _____ ☐ Loss of Motivation: _____

☐ Thoughts of Death or Dying: _____

☐ Anxiety or Worry: _____

☐ Panic (e.g. shortness of breath or heart racing): _____

☐ Angry Moods: _____

☐ Verbal Aggression: _____ ☐ Physical Aggression: _____

☐ Irritability: _____ ☐ Unusual "Happy" Moods or Mania: _____

☐ Intrusive or Bothersome Thoughts or Memories: _____

☐ Compulsive, Ritualistic, or Perfectionistic Behaviors: _____

Behavioral Health Intake Form - Adult

☐ Nightmares: _____

☐ Thoughts or beliefs that others might think are strange or unusual: _____

☐ Hearing things when no one is there or that others say they cannot hear: _____

☐ Seeing things that others cannot see: _____

☐ Feeling like you cannot trust others: _____

☐ Difficulty getting along with others: _____

☐ Problems paying attention or concentrating: _____

☐ Problems with Memory: _____

☐ Reckless or Impulsive Behavior: _____

Have you ever been tested by a psychologist (IQ, personality)? ☐ Yes ☐ No _____

If Yes, what were the results of the testing? _____
(If a copy of the report is available, please bring it with you to the appointment or request a copy from the psychologist.)

Is there anything about you that has not been asked so far that you feel is important for us to know? _____

_____

_____

For clients seeking therapy services, please list your goals for therapy:

1. _____
2. _____
3. _____

APPENDIX C

PEDIATRIC MENTAL HEALTH HISTORY QUESTIONNAIRE

Figure C1. Pediatric Mental Health History Questionnaire

Behavioral Health Intake Form - Child

This questionnaire is designed to obtain detailed information about your child's background and current problem(s) to assist your therapist in developing a treatment plan and save you time in the initial session. Please try to answer all questions to the best of your knowledge. This information will become part of your child's permanent record and is protected by HIPAA.

Child's Name: _____ Date of Birth: _____

Gender: _____ Race: _____ Age: _____

Mother's Name: _____ Mother's Age: _____

Father's Name: _____ Father's Age: _____

Legal Guardian (if not parents): _____

Home Address: _____ Home Phone: _____ ☐ Message

_____ Mother Work Phone: _____ ☐ Message

Father Work Phone: _____ ☐ Message

Mother Cell Phone: _____ ☐ Message

Father Cell Phone: _____ ☐ Message

Please check box if a message can be left at these numbers.

Billing Address (if different): _____

_____

EMERGENCY CONTACT INFORMATION

Name: _____ Phone: _____

Relationship to Child: _____

REFERRAL INFORMATION

Who provided the referral? _____

Please provide their contact information: _____

_____

Name of person completing form: _____

Relationship to child: _____

Behavioral Health Intake Form - Child

PRESENTING CONCERNS

What are the presenting problems? _____

_____

_____

_____

When did the problem(s) begin or were they first noticed? _____

_____

What was going on when the problems began? _____

_____

_____

Has the child previously received help for this problem? ☐ Yes ☐ No *If Yes*, state what and when:

_____

Is there anything that seems to make the problem better? Worse? _____

_____

FAMILY AND SOCIAL HISTORY

1. Please describe the family composition:

Name: _____ Age: _____ Relationship: _____

_____

_____

_____

_____

_____

_____

2. What is the parents' education and occupational history? _____

_____

3. Are there siblings not living at home? ☐ Yes ☐ No _____

4. Describe the home environment: _____

_____

5. Are there religious or cultural considerations: ☐ Yes ☐ No _____

Behavioral Health Intake Form - Child

MENTAL HEALTH HISTORY

1. Is there any history of mental illness or psychiatric intervention in the immediate family (including mental retardation or substance abuse)? ☐ Yes ☐ No

2. Is there any history of mental illness or psychiatric intervention in the extended family? ☐ Yes ☐ No

3. Please describe any mental health treatment the child has received, including dates: _____

4. Provide a brief history of the child (losses, moved, trauma, major life events): _____

LEGAL HISTORY

1. Is there parental history of legal problems or arrest? ☐ Yes ☐ No _____
2. Is there history of exposure to domestic violence? ☐ Yes ☐ No _____
3. Is there history of CPS or court involvement? ☐ Yes ☐ No _____
4. Has the child ever been placed outside of the home? ☐ Yes ☐ No _____
5. Are there prior allegations of abuse to the child or siblings? ☐ Yes ☐ No _____
6. Has the child ever been arrested? ☐ Yes ☐ No _____

MEDICAL HISTORY

1. Is the child sexually active? ☐ Yes ☐ No _____
2. Has the child experimented with drugs, alcohol, or cigarettes? ☐ Yes ☐ No _____
3. Please provide the child's medical history:

Condition:	Date/Duration:	Treatment:	Treating MD:

Behavioral Health Intake Form - Child

4. Does the child have a history of hospitalizations? ☐ Yes ☐ No *If Yes*, please provide the dates and reasons:

5. Please list all current prescribed medications or treatments the child is currently taking:

Medication: Dose/Frequency: Prescribing MD: Reason for Taking:

6. Does the child have any known allergies? ☐ Yes ☐ No *If Yes*, please specify: _____

7. Are there known pregnancy or birth complications? ☐ Yes ☐ No

If Yes, please describe: _____

8. Provide details on developmental milestones (give approximate ages):

_____ Sat Up _____ 1st Steps _____ Stood on Own

_____ Toilet Trained _____ Use of 2-Word Sentences

_____ Cooperative Play with Other Children

9. Does the child have a history of seizure, head injury, or loss of consciousness? ☐ Yes ☐ No

If Yes, please specify: _____

10. Who is the child's primary care provider? _____ Phone Number: _____

Date of last visit: _____ Preferred hospital: _____

EDUCATION HISTORY

1. What is the child's current grade? _____ School: _____

2. Does the child have any learning difficulties? ☐ Yes ☐ No _____

3. What are the child's typical grades: _____

Behavioral Health Intake Form - Child

4. Has the child repeated a grade? ☐ Yes ☐ No _____
5. Does the child participate in special education classes (specify subject)? ☐ Yes ☐ No _____
6. Does the child have conduct problems in school? ☐ Yes ☐ No _____
7. Has the child experienced in-school suspension? ☐ Yes ☐ No _____
8. Has the child experienced expulsion? ☐ Yes ☐ No _____
9. Has the child had excessive lateness or missed days? ☐ Yes ☐ No _____
10. Does the child have problems with handwriting? ☐ Yes ☐ No _____
11. What is the child's best subject? _____
12. What is the child's least favorite subject? _____

Has the child exhibited any of the following problems or behaviors?

Check the box of those that apply, along with a brief description beside.

☐ Depressed (sad/blue) mood: _____
☐ Decreased involvement in activities: _____
☐ Decreased involvement with friends/family: _____
☐ Episodes of crying: _____
☐ Bullying: _____
☐ Worried/anxious/nervous: _____
☐ Flashbacks/intrusive thoughts: _____
☐ Separation difficulties: _____
☐ Problems with sleep: _____
☐ Regressed behavior (acting less mature): _____
☐ Problems sitting still: _____
☐ Problems staying focused: _____
☐ Impulsiveness: _____
☐ Cruelty to animals: _____
☐ Odd language: _____
☐ Fire setting: _____
☐ Problems with social/emotional exchanges: _____
☐ Repetitive mannerisms: _____
☐ Unusual preoccupations/restricted interests: _____

☐ Angry mood: _____
☐ Verbal or physical aggression: _____
☐ Irritability: _____
☐ Nightmares: _____
☐ Easily startled/fearful: _____
☐ Unusual repetitive play/reenactment of trauma: _____
☐ Problems with appetite: _____
☐ Difficulty controlling bladder/bowel: _____
☐ Sexual acting out: _____
☐ Inappropriate sexual knowledge: _____
☐ Problems understanding/following directions: _____
☐ Problems with authority/oppositional: _____
☐ Increased physical complaints/health worries: _____
☐ Problems with eye contact/use of social gestures: _____
☐ Problems with speech/limited vocabulary: _____
☐ Peer relationships below developmental level: _____
☐ Inflexible routine/rituals: _____
☐ Problems initiating/sustaining conversations: _____
☐ Problems with motor coordination/handwriting: _____

Behavioral Health Intake Form - Child

☐ Forgetful/easily distracted: _____
☐ Loses things: _____
☐ Problems organizing tasks/activities: _____
☐ Excessive talking: _____
☐ Often interrupts others: _____
☐ Destruction of others' property: _____
☐ Vocal/motor tics: _____
☐ Very inhibited in social relations: _____
☐ Failure to give close attention to details: _____
☐ Failure to finish tasks: _____
☐ Does not listen when spoken to: _____
☐ Conning others/theft: _____
☐ Argumentative/actively defies adults: _____
☐ Spiteful/vindictive: _____
☐ Overly familiar with strangers: _____
☐ Other: _____

Please describe your (and other involved caregivers) typical methods of disciplining the child and the child's response to discipline:

_____

_____

_____

Is there anything about your child that has not been asked so far that you feel is important for us to know? _____

_____

_____

If the child has been tested/evaluated by the school or a psychologist, please provide the contact information below. *If you have a copy of the report, please bring that with you to the first session.*

_____

_____

If seeking therapy services, please list your goals for your child's treatment:

1. _____
2. _____
3. _____

APPENDIX D

NEW MENTAL HEALTH PATIENT PRE-VISIT PROCESS

Figure D1. New Mental Health Patient Pre-Visit Process