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Development and Validation of a Clinical Practice Guideline for Telemedicine

Jennifer Johnell Upton
Walden University

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Walden University

College of Nursing

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Jennifer Upton

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Review Committee

Dr. Joanne Minnick, Committee Chairperson, Nursing Faculty

Dr. Mark Wells, Committee Member, Nursing Faculty

Dr. Robert McWhirt, University Reviewer, Nursing Faculty

Chief Academic Officer and Provost

Sue Subocz, Ph.D.

Walden University

2022

Development and Validation of a Clinical Practice Guideline for Telemedicine

by

Jennifer Upton MSN, BSN, APRN FNP-BC

MSN, Walden University, 2015

BSN, Mary-Hardin Baylor, 1998

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

August 2022

Abstract

Access to healthcare necessitated the utilization of telemedicine during the international pandemic of COVID 19. Telemedicine use surged in family practice in 2020 with limited resources for appropriate telemedicine patients. The problem identified for this DNP project was the lack of resources for telemedicine guidelines in family practice. The purpose of this project was to create a clinical practice guideline (CPG) to initiate screenings for appropriate patients for telemedicine. The Plan, Do, Study, Act (PDSA) concept and framework were utilized to develop the CPG. The project question identified was whether the development of a CPG on telehealth delivery in a family practice clinic setting be approved to guide providers in delivery of effective EBP telehealth care using the AGREE GRS tool. The population targeted for this evaluation of the CPG guideline included four expert panelists who utilized the AGREE GRS to evaluate the CPG. The panelists' responses were analyzed using descriptive statistics and proportional statistical analysis. The key results were that this tool was highly effective with a score of 97% which is considered a high-quality result. The recommendation was that this CPG be utilized as a starting point for family practice clinics implementing telemedicine. Further research is needed to continue to assess the quality of this tool in multiple settings with more providers and to gain more insight into further developments to meet the epidemic and strain on access to healthcare. Positive social change is noted with providing guidance for telemedicine where it is limited, and it has the potential to improve access to healthcare in a larger scale in multiple areas and improve patient access with telemedicine.

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Dedication

This project is in dedication to my four beautiful children for which I do everything with their ultimate benefit in mind.

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Section 1:

Introduction

Telemedicine has recently expanded with the elimination of geographical restrictions on telehealth access. Telemedicine is defined as a healthcare service delivered from a location different than the patient given by a clinician (Telehealth & Telemedicine, 2020) The term telehealth is a more broad term used to refer to the use of electronic health information to promote health via education, public health or health administration as well as delivering healthcare (Telehealth & Telemedicine, 2020). Due to the COVID-19 pandemic, restrictions to telehealth were lifted to provide emergency access to healthcare providers and follow CDC guidelines with social distancing to reduce the risk of COVID-19 transmission [Centers for Medicare & Medicaid Services (CMS), 2020] . Regulatory flexibilities were granted under the president’s emergency declaration 1135 allowing the almost immediate access to telemedicine services (CMS, 2020). With this rapid change in regulations, there was no time to establish guidelines for family practice use of telehealth. Telehealth is an incredible resource especially for those patients with limited access to transportation, increased risk of infection and special needs. Determining the appropriateness of a telehealth visit versus an in person visit frequently falls to nursing in the screening or triage process.

“The American Association of Nurse Practitioners® (AANP) supports the provision of health care services via technology” (American Association of Nurse Practitioners, 2020, Position Statement, Telehealth, para. 1). Appropriate patient

selection should be based on both evidenced based resources and a provider recommendation American Society for Health Care Risk Management (ASHRM, 2018). Screening patients efficiently from the beginning can save valuable resources and avoid barriers to patient care. To make telemedicine a sustainable and project, nursing will need to collaborate with other members of the healthcare team to monitor and improve this process (ASHRM, 2018).

Problem Statement

Telemedicine is now widely used out of necessity in primary care [U.S. Department of Health and Human (HHS.gov), 2020]. Limited guidelines or criteria exist for what is an appropriate telehealth patient in family practice (Shaw et al., 2018). Telemedicine enables video or phone appointments between a patient and their health care practitioner from the convenience of their own home. The obvious benefit of telemedicine is the convenience for the patient and the protection from exposure to contagious diseases. The concern is what patient complaints must be assessed in person to avoid a possible mid-diagnosis or delay in care. Telehealth can refer to a phone call which only allows the practitioner to hear the patient's voice or telemedicine which uses a video conference (*Texas Administrative Code*, n.d.-a). A video conference allows the practitioner to assess a patient's color and breathing pattern and possibly observe other things that cannot be seen with a telephone call alone. Video chats can sometimes be deceiving in color and sound may be distorted. The local nursing practice problem identified and that is the focus of this project is providing clear guidelines defining what

is appropriate for a telemedicine visit and what should always be assessed in person for this DNP project.

Some would argue if there should be clear guidelines for patients calling to schedule a telemedicine appointment. Trying to identify appropriate telemedicine patients can be difficult due to the limitations from not seeing them in person. Having guidelines in place for different appointment types does not ensure patient's will always be put in the appropriate appointment slot but may assist in streamlining the process. Although there is a clear benefit to the patient in not having to leave their home and the convenience it provides, but it may also affect their representation of symptoms. Patient's do not always know what symptoms are related or relevant, so these things are determined and fine-tuned in an in-person appointment and evaluation assessment. The benefits of telemedicine are apparent, but the concern is whether it may delay patient care or misidentify their presenting problem.

By identifying the focus of this project and clarifying the local relevance a need for this DNP project was identified. This project holds significance for the field of nursing to help give guidance in screening and identifying telemedicine appropriate patients and even more significant since nurses and advance practice providers (APP) are tasked with more telemedicine appointments and are first line for screening them in primary care.

Purpose Statement

The purpose of this project was to review EBP for telemedicine appointments in a family practice setting to utilize for the development of a clinical practice guideline [CPG] (Appendix B) on the use of telehealth in a family practice setting validated using the AGREE GRS tool (Appendix A). Prior to the COVID-19 pandemic telemedicine was rarely used in family practice. The pandemic forced the utilization of resources not previously optimized (HHS.gov, 2020). The necessity of avoiding unnecessary patient exposure occurring in face-to-face visits exploded the utilization of telemedicine creating a gap in guideline development. The main barrier to using this resource previously was lack of reimbursement from insurance. The pandemic forced a sudden lift on the restrictions in reimbursements allowing providers to incorporate telemedicine in their practices. However, with the rapid transition many practices were left to determine their own guidelines for telemedicine with limited resources. Family practice patients may struggle with video access, but most have access to a telephone.

The meaningful gap-in-practice this DNP project is clear guidelines for telemedicine. The guiding practice question “Will the development of a CPG on telehealth delivery in a family practice clinic setting help guide providers in delivery of effective EBP telehealth care using the AGREE GRS tool?”. This project sought to establish clear clinical guidelines when initiating telemedicine in a family practice setting. Clinical guidelines are important for efficiency and avoiding delay in care. Patients are often scheduled by non-medical support staff so access to clear and concise

guidelines will assist in getting patients to the most appropriate visit type. Patients are excited about the convenience of telemedicine access which often resolves transportation issues. The importance of a physical assessment cannot be disregarded. If a patient needs in person tests a telemedicine visit may cause a delay in care by requiring a separate appointment and then an additional delay in getting tests that may be needed based on a physical assessment.

Nature of the Doctoral Project

This project is a development of a CPG for telemedicine to be utilized and provide formal guidance in a family practice setting using the Walden CPG manual as a guide. The sources of evidence utilized are scholarly, peer-reviewed articles written within the last 5 years. Evaluation of current direction and guidelines regarding telemedicine were done in existing articles related to telemedicine with a focus on the most recent recommendations. The pandemic has created a drastic alteration in how providers provide care and utilize telemedicine so recent articles will be the most relevant.

A data search was done with various combinations of key words to include: COVID 19, pandemic, telemedicine, telehealth and / or telehealth or ehealth or e-health or mhealth or m-health and family practice or family medicine or primary care or general and guidelines or protocols or practice guideline or clinical practice guideline. The search was narrowed to exclude pediatrics or children since these may have different requirements regarding parental consent. The search was further narrowed by only

selecting peer reviewed articles after 2017. Particular attention was given to guidance from health agencies for the United States (US). Providers must remain profitable to continue, and reimbursement requirements have dramatically changed following the outbreak of COVID-19 enabling insurance billing for telemedicine.

With this doctoral project, I hoped to connect the gap-in-practice identified with the aligned purpose of the project. The articles were reviewed for the most consistent and reliable guidance on practical guideline recommendations that are evidence-based related to telemedicine. We have a unique opportunity to utilize EBP that has been identified with the COVID pandemic and lay a foundation to guide providers, nurses, and clinic staff in properly triaging, identifying and utilizing telemedicine in primary care.

Significance

The significance of this project was to develop guidance on how to provide care via telemedicine during and post this COVID-19 crisis. Stakeholders identified include providers, nurse, clinic staff and patients and their families. Providers, nurses, and clinic staff now have a CPG that provides guidance on how to identify, refer and utilize telemedicine for appropriate patients. Patients and their family members have more opportunities to seek care from two different environments, from the comfort of their home or work and in a more traditional setting, the family practice location.

Potential contributions to nursing practice from the doctoral project can be seen from different modalities. This project created best practice guidelines for telemedicine patient selection and has the potential to provide a model for family practice clinics integrating telemedicine in their practice. Access to primary care continues to be an issue

especially in rural areas (*Assessment of Changes in Rural and Urban Primary Care Workforce in the United States From 2009 to 2017 | Health Disparities | JAMA Network Open | JAMA Network*, n.d.). Telemedicine provides an opportunity to increase access to primary care providers (PCP) especially in rural areas. In evaluating this project, it may serve as a resource to other healthcare entities looking to establish patient selection guidelines. Technology utilization for improving patient care and efficiency is supported by the American Association of Colleges of Nursing (AACN) in the DNP Essentials (Kuperman et al., 2018). The DNP essentials for quality improvement, technology and improving population health are addressed with this project.

Positive social change implications from this project include: increased access to primary care during a pandemic, rerouting minor care visits to telemedicine to allow for more time for higher acuity patients and increased access for patient for work and transportation issues.

Summary

Telemedicine utilization has exploded in the wake of the Coronavirus pandemic particularly in areas previously covered in family practice (HHS.gov, 2020). Limited guidelines exist for patient selection in telemedicine for family practice and urgent care (Shaw et al., 2018). A large influx of telemedicine utilization has begun due to insurance reimbursement allowances for telemedicine visits. This project developed a CPG for implementing telemedicine and selecting appropriate patients for these visits in the family practice setting with the help of an expert panel using the AGREE GRS tool. This

section highlighted the problem statement, purpose, and significance. Section 2 will explore concepts, models, and theories relevant to the DNP project; the relevance to nursing practice utilizes a synthesis of literature on telemedicine and EBP; and finally, the role of the DNP student, team and local background related to telemedicine and its relevance to nursing practice.

Section 2: Background and Context

Introduction

The practice problem is that telemedicine is now widely used with limited guidelines existing for what is an appropriate telehealth patient in family practice (Shaw et al., 2018). Considering the current pandemic and world health crisis everyone is looking for ways to care for their patients without increasing their exposure. Telemedicine is being rolled out emergently to meet the needs of the ever-growing crisis. Quality improvement teams will need to establish measurable goals to evaluate safety and efficacy of this new form of healthcare.

A preview of this section includes an introduction to the concepts and models utilized including the AGREE GRS model/tool and the Plan Do Study Act (PDSA) concept. The theory identified for this project is A discussion of the relevance to nursing practice as this affects nurses in all fields. Lastly a review of the background context and role of the DNP student will be explored.

Concepts, Models, and Theories

For this project the AGREE GRS tool (Appendix A) and PDSA concept (Figure 1) were selected due to its flexibility and "real time" use in development of CPGs.

Model/Tool

The AGREE GRS tool (Appendix A) is a valid and tested tool to evaluate clinical practice guidelines [CPG] (Knudsen, 2019). The AGREE GRS tool will be used to have

the CPG for Telemedicine evaluated and validated. The AGREE GRS tool is a tool developed to assess the methodological quality of the guideline and it used by guideline developers, policy makers, health administration, program managers and professional organizations (AGREE GRS, 2022). The AGREE GRS tool is made up of seven questions addressing quality domains with two categories specific to individual focuses and then three questions to review the overall assessment of the CPG (AGREE GRS, 2022). The seven questions include (AGREE GRS, 2022):

1. Process of Development
2. Presentation Style
3. Completeness of Reporting
4. Clinical Validity
5. Overall Assessment: (# 1) Quality of the guideline
6. Overall Assessment: (# 2) Recommend for use in practice
7. Overall Assessment: (# 3) I would make use of this quality in my professional decisions

Finally, the three final overall assessment items (5-7) that had the appraiser make overall judgements of the practice guideline while considering how they previous rated the 7 questions over the five domains (AGREE GRS, 2022). This two requires a minimum of 2-4 appraisers to evaluate the CPG are reading the CPG in its entirety and any accompanying documents (AGREE GRS, 2022). The direct website to the tool (Appendix A) also provided instructions on using the tool, frequently asked questions, and how to interpret the results.

Concept and Theory

The concept selected allows for progressive evaluation and assessments implementing the *Plan Do Study Act* (PDSA), then repeat as illustrated below (Knudsen, 2019). PDSA (figure 1) is selected for this project due to its adaptability to evaluating the project's progress and allowing for a timeline on the evaluation. This concept also allows for a way to test a change that is implemented. Representation of the intended product of quality improvement for telemedicine is represented below in figure 1. The PDSA concept allows the leader (DNP student) to work collaboratively with the team to identify what they are trying to accomplish, identify if the intended change is an improvement and what changes should be made that will result in improvement (AHRQ, 2022).

Figure 1

Plan Do Study Act (PDSA) Model/Concept



The theory identified for this project is the Normalisation Process Theory (NPT). The NPT help identify the needed factors that will promote and inhibit the routine incorporation of complex interventions into practice (Murray et al, 2010). The NPT also helps explain how the interventions will work at the start of implementation to beyond the completion of the project (Murray et al, 2010). The main focus is to assist the intended audience, learner, and team into making the intervention more normalized (Murray et al, 2010). The NPT has four major components: coherence (or sense making), cognitive participation (or engagement), collective action (work done to enable the intervention to happen), and finally, the reflexive monitoring (formal and informal appraisal of the benefits and costs of the intervention); the four components aid in the development and evaluation of CPGs (Murray et al, 2010, p. 2).

Key Terms

Key terms identified for this DNP project are listed below and will be added upon after completion of section 4 and 5 if further terms are identified throughout the project.

They include:

- *Clinical Practice Guideline (CPG)*: a clinical practice guideline
- *Telemedicine*: Telemedicine refers to real time video services such a zoom where telehealth refers to exchange of health information including telephone calls (*Texas Administrative Code*, n.d.-a) Telemedicine improves patient's health by permitting a real-time interactive communication between a provider and patient at two different locations

(Kichloo et al., 2020). For the sake of this document Telehealth and Telemedicine will be used interchangeably.

- *Telehealth*: telehealth refers to the use of telecommunications and technology to provide access to diagnosis, intervention, consultation and information across a distance (Kichloo et al., 2020). This is a broader concept of telemedicine that includes technology that make telemedicine more accessible (Kichloo et al., 2020).
- *Nonverbal communication*: actions or body responses lost in telemedicine due to loss of provider-patient communications and include: body language, gestures, facial expressions and the patient will be unable to detect a provider's level of concern (Coleman, 2020).
- *Provider*: a provider is defined as a physician (MD/DO), nurse practitioner (NP), physician assistant (PA) that can direct the care plan of a patient, is responsible for writing orders and managing a patient's medical diagnoses.
- *Medical Assistant (MA)*: medical personnel who gather information, vitals and provide services under their provider. Examples include: vital signs, blood collections, assisting providers with procedure. They are typically certified by in class or online certification.
- *Triage*: a process of assessment and identifying the severity of patients presenting to a medical place for treatment (Reiss et al., 2020).

- *AGREE GRS Tool*: is a tool with seven questions that were developed from the complete AGREE II tool to assess the methodological quality of the guideline and it used by guideline developers, policy makers, health administration, program managers and professional organizations (AGREE II, 2022 and Brouwers et al., 2010).
- *Normalisation*: process of introducing change and interventions with the intention to have to the intervention be accepted with little to no resistance (Murray et al, 2010).
- *Appraiser/Panelist*: designated reviewers of the CPG utilizing the AGREE GRS tool with experience and expert level exposure to telemedicine.
- *Stakeholders*: primary care providers, clinic staff and personnel that will have direction and clear guidance on the use of telehealth.

Relevance to Nursing Practice

The American Association of Nurse Practitioners (AANP) (2020) supports telemedicine utilization in nursing especially during this historic time. The innovative use of telemedicine in healthcare is increasing (CMS, 2020). The broader problem is the emergence of the COVID-19 disease has created an urgency to expand the use of telemedicine to help with routine care, and keep vulnerable patients isolated while still having access to the care they need (Medicare Telemedicine Health Care Provider Fact Sheet, CMS).

The current state of nursing regarding Corona virus or COVID-19 strain of SARS-CoV-2 is it has changed our entire world (Little & Stoffel, 2021). This pandemic was first seen in America at the beginning of 2020 with major principles of epidemiology being applied in March. As of June 9, 2020, there have been 1,827,425 diagnosed cases of COVID-19 [Centers for Disease Control (CDC), 2020]. COVID-19 is spread through close contact from person-to-person (CDC, 2020). A pandemic is an epidemic that has spread globally, infects large numbers of people with little immunity, causes a significant mortality rate and economic disruption (Rochester Regional Health, 2020). In response to this pandemic, telemedicine was facilitated from the president to protect our population improving our practice of healthcare (Texas Administrative Code, 2020).

Telehealth refers to the exchange of health information from one site to another electronically and encompasses telemedicine (Tx Medicaid Telecommunication Services Handbook, p. 5, 9, 2020). Telemedicine is the delivery of healthcare to an individual from a qualified healthcare provider in a different location via information technology (Tx Medicaid Telecommunication Services Handbook, p. 5, 9, 2020). Information technology can refer to telephonic communication, telephone calls or video conference calls via such platforms as zoom (Tx Medicaid Telecommunication Services Handbook, p. 5, 9, 2020). In this delivery model the practitioner cannot touch the patient for a physical assessment but may order radiographic tests, laboratory tests and prescribe medications (American Medical Association, 2020). This resource has been widely utilized by neurology and even nursing for call backs after emergency room visits but not

has broadly in family practice. This project seeks to fill the gap in practice by providing a clinical practice guideline (CPG) for telemedicine.

Currently there is no formal strategies, standard practices, or an established CPG on telemedicine in the primary care setting. Most clinics set guidelines according to their workflow with little to EBP to back it up. At the current primary care clinic where the project was conceived, there is no CPG and is dependent upon the providers on duty to determine telemedicine versus inhouse clinic appointment. In some cases, the office front desk staff or the medical assistants (MAs) are determining who comes to the office or is assigned a telemedicine appointment with a provider.

This DNP project provides an opportunity to advance nursing practice with the development of this CPG on approaches to utilizing telemedicine/telehealth. Using EBP to formulate this guideline, assigning appraisers to evaluate the CPG using the AGREE GRS tool; will support two domains of the American Association of Colleges of Nursing (AACN) DNP Essentials to provide support for Domain 2 (Person-Centered Care) and Domain 5 (Quality and Safety) for patients and nursing as a whole (AACN, 2022).

Local Background and Context

In summary, a response to this rapid initiation of telemedicine has identified the need for a CPG so that many organizations can come together to provide resources for implementing telemedicine in a safe and effective manner. Previous restrictions on the use of telemedicine made it impossible to bill or receive reimbursement for telemedicine

appropriate visits. With the current pandemic setting a new precedent, new guidelines in regards to billing, appropriate care and providing more access to healthcare for individuals became the driving force for change.

Institutional Context

One of the limitations associated with the institutional context would be access to telemedicine; which refers to real time video services such a zoom where telehealth refers to exchange of health information including telephone calls (*Texas Administrative Code*, n.d.-a). Often institutional limitations for telemedicine include technology access for the patient. Telephones are most readily available to most primary care patients where apps and computers may be more challenging to access so telephone calls will be considered a telemedicine visit for the CPG guidelines.

Another institutional limitation identified is access to healthcare providers remains critical especially to chronically ill population. During this pandemic it is the chronically ill patients that are at the highest risk for exposure to COVID (CDC, 2021). Management of health, chronic illness, and wellness versus the risk of exposure is the critical nursing issue this project seeks to answer.

Locally used terms

For the purpose of this paper, telehealth and telemedicine are used interchangeably and will refer primarily to telephone assessments between a primary care provider and the patient. Another local term is “*triage*”, which was defined previously as

identifying the severity of one's presenting problem and illness and identifying who meets the criteria for in person evaluation versus telemedicine. The operational process for this project includes development of the CPG, evaluation of it by identified experts and providing a CPG to guide providers in conducting telemedicine.

State and Federal Contexts

State and federal entities have given some guidance in reference to billing and evaluation of telehealth appropriate patients. Effective March 6, 2020, until the end of the public health emergency (COVID); health and human services will not be conducting audits to ensure a prior relationship existed for claims (Medicare Telemedicine Health Care Provider Fact Sheet CMS, 2022). For example, previous restrictions on the use of telemedicine have been lifted, such as requiring the patient be an established patient (Medicare Telemedicine Health Care Provider Fact Sheet CMS, 2022). The provider is given the choice to evaluate in this manner without risk of fear from audits.

The American Society for Health Care Risk Management (ASHRM) (2020) recommend that telemedicine be utilized in every disaster planning. Waivers have also been issued during the Coronavirus pandemic to make it easier for practitioners to issue care to both new and established patients (HHS.gov, 2020). Centers for Medicare and Medicaid have also made policy changes to allow for billing both video and audio-only services the same as in person visits (HHS.gov, 2020).

The local, state, and federal agencies that determine how telemedicine can be used drive a huge portion of the local background and context to addressing this identified

DNP project. Due to the recent release of previous restrictions on telemedicine, guidance on how to complete telemedicine is needed to provide safe and effective care rooted in EBP.

Role of the DNP Student

As a primary care provider (PCP) during the initial COVID outbreak, the nursing concern that came up quickly was the waiting room of our primary care office. The day we our breast cancer awareness and screenings, the waiting room was infiltrated with patients complaining of possible COVID concerns. The dilemma became who do we treat and if we see sick patients, are we putting our healthy patients at risk? This particular day we were not equipped to begin COVID testing. However, we were not willing to expose our healthy patients to potentially contagious patients for routine screenings. It was then apparent to this student that a CPG on the utilization of telemedicine would be a very valuable tool if planned appropriately and based in EBP. The family practice went through a transition period where every patient was screened prior to being seen for COVID symptoms. Since this time the primary care has continued to adapt and change processes incorporating telemedicine.

As a doctoral student with experience in telemedicine and family practice, my role will be to search available resources to provide a CPG for initiating telemedicine in a family practice environment. The participants for this project will be myself and the identified appraisers that will use the AGREE GRS tool to evaluate the CPG. I will utilize EBP through peer-reviewed journals, any current articles with proposed CPG for

telemedicine and the feedback from the evaluation of the CPF from the AGREE GRS tool to improve and adjust as needed for the final CPG to be utilized in the primary care setting.

Motivations for this project were the frustration seen by not only patients but the providers, office staff and lack of access to care for ill or healthy patients. I identified a need due to the lack of direction from federal and state agencies on the new changes made on the use of telemedicine that were not provided. As a NP, direction and guidance are needed to provide safe and effective care. Due to the passion, I feel for my patients I am concerned that the patient will supersede cost effectiveness over time if a CPG is not created to keep “loss” at a minimum due to the pandemic and it’s drain on resources.

Potential biases identified include influence by supervising providers, lack of trained staff in identifying appropriate patients and lack of guidance in the literature. A way to address them was to incorporate these three identified biases into the design of the CPG. Providing guidance when the issue comes up. For example, training the MA’s to identify patients and not allowing front office staff to triage patients would be one approach to address the identified bias.

Summary

Telemedicine is moving into uncharted waters. Healthcare will never be the same with this new widespread utilization of technology to facilitate care in previously underserved populations. This project provided a CPG to family practice clinics implementing telehealth into their practice. Telehealth will increase access to patients for

primary care and reduce unnecessary risk of exposure to COVID. Although it is the pandemic that has pushed technology to the forefront of healthcare telemedicine will continue far past the time of the coronavirus. The next section will discuss the sources of evidence, analysis, and synthesis, for completing this project.

Section 3: Collection and Analysis of Evidence

Introduction

Limited guidelines or criteria exist for what is an appropriate telehealth patient in family practice is the problem selected for this DNP project (Shaw et al., 2018).

Telemedicine enables video or phone appointments between a patient and their health care practitioner from the convenience of their own home. The purpose of this project is to develop a CPG (Appendix B) for family practice settings implementing telemedicine with guidelines based on available guidance and position statements from trusted sources. Trusted sources include the American Medical Association (AMA), Texas Medical Association (TMA), World Health Organization (WHO) and other credible resources. The tool will be evaluated by a team of experts using the AGREE GRS tool (Appendix A). From that evaluation the CPG (Appendix B) will be then completed from their feedback. A detailed plan for this proposed DNP project will be discussed in section 3.

Practice-Focused Question

The local and state identified problem of no clear guidance on telemedicine identified a gap in practice and a need for the development of a CPG for the DNP project to address the identified practice-focused question. The practice focused question for this project is “Will the development of a CPG on telehealth delivery in a family practice clinic setting help guide providers in delivery of effective EBP telehealth care using the AGREE GRS tool”.

The purpose of this project was to utilize current EBP and guidelines for telemedicine available based on governing bodies (ex. AMA, AHRQ, etc.), nursing organizations (ANA, ANFP) and peer-reviewed literature to develop a CPG for family practice and the utilization of telemedicine. This aligns with 2 identified DNP Essentials (Essential 2 and 5), the need for clear guidance in the management of primary care patients, protection of healthy versus sick patients and care that adapts to recent changes in telemedicine for individuals.

The changes met the operational definition of the DNP project by selecting appropriate articles and guidance provided based on current EBP, CPGs developed during the pandemic for telemedicine and identification of who and how the CPG should be used. It is important to make sure patients are identified appropriately and then have access to telemedicine.

Sources of Evidence

Sources of evidence were selected from reputable and clinical sites that use EBP to develop their guidelines. Sources of evidence for this DNP project include, Walden Library, CINAHL, PubMed, Medline, medical and nursing organizations, and peer-reviewed literature identified with key search terms from the DNP project proposal.

The AMA (2020) released a tool kit with definitions, workflows, coding and billing recommendations, funding opportunities, as well as things to consider when choosing a platform for telemedicine delivery. The AMA (2020) also released some general guidelines for telehealth that excluded patients needing a physical exam or

experiencing symptoms outside of telehealth protocols suggesting such patients as those with fever, shortness of breath, confusion, or agitation. In addition, common telehealth examples were provided including pink eye, allergies, eczema, acne, medication management, review of labs, x-rays, and consultation reports (AMA, 2020). The AMA (2020) listed first time appointments as not appropriate for telehealth. The Texas Medical Association (TMA) also released telemedicine 101(Appendix C) for practices listing appropriate patient to provide guidance for physicians and providers (TMA, 2019).

From the evidence above, it aligns with the purpose of developing a CPG on telemedicine in primary care as noted in section one. By reviewing the current literature to develop the CPG on telemedicine for a family practice setting it meets the requirements of a DNP project. These resources from the literature search guide the DNP project development by making sure that the suggested path to manage telemedicine is founded in reliable, current, and appropriate evidence.

By using the AGREE GRS tool (Appendix A), this allows the experts to evaluate the CPG, provide feedback and recommended changes so that the CPG has been properly developed and confirmed for use. Results of the AGREE GRS tool are the primary source for the CPG evaluation. Once done, the analysis of these findings was completed, and changes were applied as applicable.

Participants

Participants/Appraisers were four experts in the field of primary care, that can triage severity of illness and identify telemedicine appropriate patients.

- *Participant 1:* A dual board-certified family nurse practitioner (FNP) and acute care nurse practitioner (ACNP) with over 11 years of experience managing primary care, acute and emergency room patients was selected. Participant 1 terminal degree is a DNP. Participant is also experienced in use of AGREE GRS tools and application of CPG in the practice environment. This participant has been using telemedicine in the long term and acute care environment since COVID 19 in 2019.
- *Participant 2:* This participant has been a nurse practitioner (NP) for over 10 years, has worked in primary care for over 10 years. Has experience in developing CPGs in the clinic setting. Participant is a board certified FNP with direct ESI triage experience. Their terminal degree is a Doctor of Nursing practice (DNP).
- *Participant 3:* Final participant is a nurse practitioner (NP) with over 5 years' experience in family medicine and primary care, board certified as an FNP. Their terminal degree is a Masters of Science in Nursing (MSN).
- *Participant 4:* A board certified family medicine physician (MD) who has practiced over 22 years in primary care. Directly involved in telemedicine and COVID-19 epidemic modifications needed to care for patients.

Procedures

The CPG, AGREE GRS tool and instructions were emailed after informed consent of participation was provided. The AGREE GRS manual will also be provided to

the appraisers for reference via email in a link. The AGREE GRS tool has been considered reliable and has been validated and is considered the primary evaluation tool to be used to evaluate CPGs (Brouwers et al., 2010). No modifications were made to the tool and the AGREE GRS tool can be reviewed in Appendix A.

Protections

The appraisers selected were chosen for the experience, education, and level of comfort in managing telemedicine patients. All participants selected will remain anonymous and name, date of birth, and location of employment will be considered protected health information (PIH) and not utilized. No phone numbers, social security numbers or numbers related to PHI will also be utilized. Emails went to everyone and with a second email address provided for them to send their results. The chair received the results and coded each response with a letter to protect the information provided. Demographics collected included: age, profession, length of service in their profession and education level. The Walden IRB was approached at the conclusion of the proposal stage with Form A utilizing the DNP CPG Manual as the guide. IRB approval was received #06-27-22-0258235, then the project went forward to the final stages.

Analysis and Synthesis

To analyze and synthesize the results of the AGREE GRS Tool (Appendix A) the results were analyzed using the AGREE GRS manual. A word document table was used to place all scores from the AGREE GRS tool by participant to evaluate the results of the panelists. The demographics were analyzed using descriptive statistics.

The integrity of the evidence was collected by my chair, de-identified per the guidelines of this project and the raw data was provided in a spreadsheet to analyze. The analysis of the raw data from the appraisers will be stored and destroyed 2 years after the completion of this project. Final analyzation of the data was done as mentioned by descriptive analysis of data and the domain formula from the appraiser responses in the AGREE GRS tool.

Summary

In section 3, a detailed plan of the process for the development of the CPG on telemedicine for primary care using EBP was detailed. A CPG was created for family practice settings implementing telemedicine with guidelines based on available guidance and position statements in alignment with the DNP project. After receiving IRB approval, the CPG was completed and evaluated by a team of experts using the AGREE GRS tool (Appendix A). After the evaluation of the CPG, it was analyzed using the descriptive and proportional statistics and additional feedback from the AGREE GRS tool.

Section 4: Findings and Recommendations

Introduction

The practice question for this DNP project was, “Will the development of a CPG on telehealth delivery in a family practice clinic setting help guide providers in delivery of effective EBP telehealth care using the AGREE GRS tool”. The purpose of this project was to provide guidance for telemedicine in family practice, where there was minimal available in the field of telemedicine for the family practice setting. The pandemic pushed the need for this guidance.

Sources of evidence that were utilized to develop the CPG included the World Health Organization (WHO), American Academy of Medicine and Centers for Medicaid and Medicare, Centers for Disease and Control (CDC), and the Emergency Severity Index (ESI). An extensive literature search was conducted utilizing research evidence-based literature, textbooks, and articles available through databases. The CPG was developed and distributed to experts in the field of family medicine utilizing telemedicine. Feedback was collected utilizing Agree GRS tool (Appendix A). Minimal adjustments were suggested and implemented into the guideline. This section will discuss those findings and implications, recommendations, doctoral team involvement, and the strengths and limitations of this project.

Findings and Implications

The CPG was distributed to the field experts with an AGREE GRS tool via email with instructions, consent, and the materials. The scores were compiled below and in Table 1.

Table 1 *Agree GRS Expert Panel Results*

AGREE II GRS Questions	Appraiser A	Appraiser B	Appraiser C	Appraiser D	Total
1 Process of Development	7	7	6	7	96%
2 Presentation Style	7	7	7	6	96%
3 Completeness of Reporting	7	7	7	7	100%
4 Clinical Validity	7	7	7	7	100%
Overall Assessment 1 Quality of the guideline	7	7	6	6	92%
Overall Assessment 2 Recommend for use in Practice	7	7	7	7	100%
Overall Assessment 3 I would make use of this quality in my professional decisions	7	7	7	7	100%
Total	49 / 100%	49 / 100%	47 / 96%	47 / 96%	192 / 98%

Results

The overall total domain score was 98% which is considered a high-quality result (Brouwer et al., 2017). Based on these findings, this tool is considered a reliable tool to use as a guideline that can be adapted for individual practice sites. The AGREE GRS Tool (Appendix A) showed that questions 1, 2, and overall assessment question 1 had areas available for improvement. However, questions 3, 4 and 6 were approved with no recommendations with scores of 100%.

Reviewer “C” gave a 6 out of 7 for question 1 with no feedback or recommended changes. Reviewer “C” also gave a 6 out of 7 for question 1 in the overall assessment with no feedback or recommended changes. Reviewer “D” gave a 6 out of 7 for question 2 and overall assessment question 1. Reviewer “D” also did not give feedback on those two questions.

Positive feedback from the CPG and AGREE II GRS Tool was noted. The general consensus was guideline was clear and easily used, it gives autonomy to the provider to select patients they feel comfortable with, it also gives clear direction to the medical assistance in front of staff and selection of possible appropriate telemedicine patients. Another comment that was noted stated, “surprised on limited available literature where a telehealth clinical practice guideline was used in research for the subject matter due to the Covid epidemic. Good work!”. Finally, another reviewer stated that the guideline was easy to follow with the table of contents. The color categories were helpful for patient selection and easy to follow and with their personal experience with telemedicine, recommendations were clinically sound and appropriate for an adult family practice setting. They appreciated that the document that was adaptable working guideline that could be edited and altered if needed for the clinical setting.

Limitations

Unanticipated limitations and outcomes that impacted the findings was the selection of the AGREE II tool versus the AGREE GRS tool. The AGREE II tool has 23 questions and is very lengthy. The AGREE GRS is a quicker eval tool that is more user

friendly in a busy practice. Another unanticipated limitation was the lack of available research-based articles on a CPG involving telemedicine in a family practice setting. Even with the recent epidemic, there wasn't enough data collected due to rapidly changing guidelines and monitoring of telemedicine that involved reimbursement. Due to this the CPG is raw and has potential to have limitations, areas for growth and flexibility that needs to be considered for different practice settings.

In terms of individuals, communities, institutions, and systems the limitations would be: implementing this tool in different practice settings, the use of the CPG with office staff or non-medical staff assisting with scheduling or screenings, and getting buy in from multiple practices to to trial the CPG and provide timely feedback to make it more adaptable and useable in various settings. Systems was a large limitation due to the main goal of the project was to develop the CPG. After completion fo the project it will need to be trialed in different family practice settings to look at communities, institutions and systems issues.

Positive social change implications for the DNP project align with Walden University's mission of social change. Increased access to family medicine and ease of scheduling telemedicine visits with CPG guidance provided more opportunities to care for a larger audience during an epidemic crisis (COVID). By opening the conversation and starting collaboration with various family practice settings, the potential to fine tune the CPG is there and will help with the limitation identified.

Recommendations

The recommendation is that this CPG be utilized as a starting point for family practice clinics implementing telemedicine. The use of this CPG can potentially increase access to family practice clinics by simplifying the addition of telemedicine. In addition, a guideline can simplify processes, reducing wasted time and improving throughput. It is recommended that this tool be used as a framework to implement telemedicine in family practice settings and adapt it as necessary.

Contribution of the Doctoral Project Team

The doctoral team assisted in assessing the quality of the project. The doctoral team assessed the validity of the DNP project to develop a CPG for telemedicine in the family practice setting. Through their evaluation of the project the doctoral team assessed the ease of use of the tool for telemedicine and provided feedback, as well as, implications for practice.

Strengths and Limitations of the Project

The strength of the project is that it is the first of its kind in this setting and has an overall score of 98%. This CPG may serve as a guide to develop future CPGs for telemedicine in other disciplines. Recommendations for future projects addressing similar topics and similar methods include the need for additional studies on its success and usefulness. Another recommendation is focused on collaboration. There is limited information and limited CPGs in the family practice setting in regard to telemedicine and this project can be used to start collaboration between other practices and specializations

to further develop and identify areas for improvement. Hopefully decreasing the gap in practice, research and recommendations for telemedicine and the clinical setting. The wide use and acceptability of the triage tool Emergency Severity Index (ESI) was essential in guiding the creation of this CPG family practice guideline for family practices that utilize telemedicine. The limitations are that it may need to be changed or adapted depending on the setting. Most family practices do acute care clinics and may be familiar with the ESI. But again, depending on the practice setting and that some populations have unique needs, more detail may need to be added depending on the setting.

Summary

In summary, there are many opportunities for this CPG to improve areas of patient care utilizing available resources for telemedicine appropriate patients. Due to the lack of formal guidance on telemedicine in a family practice setting, it provides a beginning for conversation, utilization, and collaboration with interdisciplinary health teams to improve the CPG to provide access to healthcare in a larger scale in multiple areas needed and the potential to improve patient outcomes and allocation of appropriate resources during a pandemic, epidemic, and management of acute and chronic medical complaints. Section 5 will discuss the dissemination of the project and an analysis of self from the beginning to completion of this project.

Section 5: Dissemination Plan

The plan to disseminate this work includes: the family practice it has been tested in to further educate the support staff involved with scheduling patients and collecting initial information for telemedicine screenings. Nursing will need further training as they may be initiating the telemedicine visit instead of front office staff. The institution will continue to use it as a guideline for scheduling patients both as they call in and for follow-up appointments and at the end of their previous visit.

Audiences and venues that would be appropriate for dissemination of this project for more broader exposure in the profession in nursing would include local, state, and national conferences. Publication of this project will be placed in ProQuest after CAO approval through Walden University is received and will be available in a large database of DNP projects. After further evaluation of the CPG's effectiveness in the clinical setting and further information is collected with patient outcomes and throughput it should be researched and published with nursing journals as the target audience.

Analysis of Self

At the completion of this project, I did an analysis of myself in the role of practitioner, scholar and project manager to complete a connection between the project experience, present state and long-term professional goals I have set for myself.

As a practitioner, I have worked in emergency medicine, family practice, in-home urgent care and telemedicine over the last 20 years, practical experience from all fields that lead to the recognition of a need for a CPG for telemedicine patients in family

practice settings. My years of triage experience as a provider, nurse manager and bedside nurse in the emergency medicine department helped with an understanding of the ESI tool and the use it would have in telemedicine, screening for appropriate patients and value in the development of a CPG in family practice.

As a scholar, my core courses in my doctoral program along with the DNP project manual and assignments helped identify and utilize current evidence-based practice literature, research, recommendations, and organizational white papers (Example: CDC, WHO, etc.) to help form the clinical practice guideline for this DNP project. During many stages of the coursework, clinical, and writing process I developed as a scholar to a doctoral level to be able to make much-needed change in my clinical and practice settings.

The project manager role was probably a different experience for me than many other students. I had been a nurse manager in the emergency room and worked in leadership and executive roles prior to pursuing my doctorate. Those experiences in real life settings helped mold the clinical practice guideline as well as leaning on previous failures and success with the ESI tool and how to apply it gave me an advantage. I did learn through the project manager role that there is a lot of revision that is required at each stage and collaborating with other scholars as well as managers with experience assist in the development process of a clinical practice guideline.

In summary the connection between the project experience, present state and long-term professional goals evolved through this DNP project. Each stage to include prospectus, proposal, and final development; I learned that each stage prepped me for the

next and built upon lessons learned in each stage required to complete the DNP project. My long-term professional goals of becoming an academic have been changed and a focus more in leadership and management is now what I hoped to pursue with my DNP.

The completion of the project, the challenges experienced, solutions identified from those challenges and insights gained during my scholarly journey will have great insight into future projects I take on as a doctoral prepared nurse. Initially the thought of this project was met with resistance and impossibility due to the lack of available guidance and doubt of the completion of this project. However, after deciding to continue the development of the CPG, it gave me an advantage on how to build upon nothing and make it into something with the understanding that it still needs work and will take time and collaboration to complete a universal CPG on telemedicine in the family practice setting. This will apply to future issues that come up with no precedent to guide my practice and clinical setting. The CPG in its current state however will be very usable in my practice setting, and I will share it with other similar clinical settings for family practice to get their feedback as well as data for future research on this subject and other projects and possible specialization areas.

Summary

A CPG for telemedicine patients in a family practice setting was developed and approved by the panelists/appraisers from this DNP project. This CPG can be useful as a tool for identifying and scheduling telemedicine appointments based on patient complaints in family practice utilizing ESI and the CPG. This easy-to-use CPG makes

decisions for patient appointments easy and standardized with guidance that is rooted in EBP and best practices. Further evaluation of this tool should be done in various settings for continued assessment of its clinical reliance and evolvment. This project will address social change with better access for patients to get seen in the family practice during high volume times, seasons and epidemics that limit access to healthcare.

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Appendix A: Agree GRS Tool (2022)

AGREE GLOBAL RATING SCALE

PROCESS OF DEVELOPMENT

1. Rate the overall quality of the guideline development methods.

Consider:

- Were the appropriate stakeholders involved in the development of the guideline?
- Was the evidentiary base developed systematically?
- Were recommendations consistent with the literature?

Lowest Quality			Highest Quality			
①	②	③	④	⑤	⑥	⑦

Comments

PRESENTATION STYLE

2. Rate the overall quality of the guideline presentation.

Consider:

- Was the guideline well organized?
- Were the recommendations easy to find?

Lowest Quality			Highest Quality			
①	②	③	④	⑤	⑥	⑦

Comments

Appendix A: Agree GRS Tool (continued)

COMPLETENESS OF REPORTING**3. Rate the completeness of reporting.**

Consider:

- Was the guideline development process transparent and reproducible?
- How complete was the information to inform decision-making?

Lowest Quality				Highest Quality		
①	②	③	④	⑤	⑥	⑦

Comments

CLINICAL VALIDITY**4. Rate the overall quality of the guideline recommendations.**

Consider:

- Are the recommendations clinically sound?
- Are the recommendations appropriate for the intended patients?

Lowest Quality				Highest Quality		
①	②	③	④	⑤	⑥	⑦

Comments

Appendix A: Agree GRS Tool (continued)

OVERALL ASSESSMENT

1. Rate the overall quality of this guideline.

Lowest Quality				Highest Quality		
1	2	3	4	5	6	7

2. I would recommend this guideline for use in practice.

Strongly Disagree				Strongly Agree		
1	2	3	4	5	6	7

3. I would make use of a guideline of this quality in my professional decisions.

Strongly Disagree				Strongly Agree		
1	2	3	4	5	6	7

Comments

Appendix B: Clinical Practice Guideline for Telemedicine

Clinical Practice Guidelines

TABLE OF CONTENTS:

- I. CLINICAL PRACTICE GUIDELINE
- II. PATIENT SELECTION
- III. PROCESS AND DEVELOPMENT/ STAKEHOLDERS
- IV. ABSTRACT

I. CLINICAL PRACTICE GUIDELINE

Clinical Practice Guideline Screening Tool for Telemedicine

COLOR	SEVERITY	EXAMPLES
GREEN	4-5	Wellness exams Screening exams Lab or Imaging Results Follow up exams Medication refills Chronic Disease Management
YELLOW	3	Extremity injuries Ear Pain Abdominal Pain with NO N/V/D
RED	1-2	Cardiac Issues (CP, SOB, chest pressure) AMS, Neuro changes Diagnosis of Alzheimer's or Dementia Trauma Unstable Vital Signs Pap smears, prostate exams, breast exams Immunizations or Injections Complaints requiring procedures Abdominal Pain with N/V/D

Green = Correct

Yellow = Challenging

Red = Incorrect/Unacceptable

Primary Care Telemedicine Candidates Examples developed based on ESI:

Correct Telemedicine Candidates (Green)

- Screening Exams
- Lab or diagnostic tests results
- Medication follow up
- Suspected cold or flu patients
- Reviews of home logs such as: blood pressure logs, food diaries or blood sugar logs.
- Follow up visits to make sure patient improving as expected
- Orders for routine preventive screenings such as: mammograms, colonoscopies, sleep study or bone density testing.
- Medication refills
- Chronic Disease management (Morais-Almeida et al., 2020)

Challenging Telemedicine Candidates (Yellow)

- Ear pain- unable to visualize without otoscope
- Abdominal pain – may require manual palpation and listening of bowel sounds
- Sports physical- unable to listen to heart sounds, need patient visualization
- Well medical exams- may need EKG, unable to hear heart sounds or check reflexes, need labs.
- Rashes- visualization required and photos do not always portray accurate assessments opportunity.
- Allergic reactions (no airway compromise)

Unacceptable Primary Care Telemedicine Candidates (RED)

(If the patient requires these things, telemedicine will just delay care & not appropriate)

- Chest pain, palpitations, shortness of breath, new onset lower extremity swelling
- Abdominal Pain with vomiting and/or diarrhea for 24 hours or longer
- Blood pressure > 190 systolic, heart rate > 130, Temp > 101.5 F
- Altered Mental Status, confusion
- Trauma (ex. head injuries, loss of consciousness, airway trauma)
- Dementia or Alzheimer patients
- Pap smears, vaginal exams
- Breast examinations
- Wart or skin tag removal
- Joint injections
- Abscess incision and drainage
- Impacted cerumen in ear canal
- Immunizations
- Injections such as steroids or vitamin B12
- Sutures or suture removal; unless recheck if patient or family have removed

Resources

Physical Exam:

- Vital Signs: home vital sign machines if available: these include temperature taking via a home thermometer, blood pressure and pulse monitoring as well as pulse ox monitors.
- Range of motion (ROM) exercises to assess injuries/complaints to all extremities.
- Use of Facetime or GoogleDuo or telemedicine service that can record calls so they may be reviewed and stored for future providers at follow up.

Visual assessments can be utilized noting:

- a patient's general overall appearance
- mental status exams and questionnaires such as: SLUMS or MMS or PHQ-9 can be administered
- observations of a patient's respirations (including accessory respiratory muscle involvement, effort of breathing, and speech)
- presence of a patient cough (be it dry or productive)
- rashes for patterns and presentation
- Medications in the home (home remedies used)
- oropharynx observation via video and patient-directed lymph nodes to assess for notable lymphadenopathy.

Things to avoid:

- Repeated telemedicine assessments for rashes or illnesses not following the expected disease course.

There are no competing interests or conflicts of interests in developing this guideline. It was developed merely on evidence review, practitioner experience and identified need.

II. PATIENT SELECTION

Adapted from the ESI and experience of telemedicine providers

A telemedicine visit should never delay a patient from being seen in person but facilitate a visit sooner than what could occur in person. The Emergency Severity Index (ESI) triage is the model adopted for identifying and assigning severity to presenting complaints (Gilboy et al., 2005). The ESI was considered in creating a CPG for Family Practice. Criteria selection is based on quality of evidence with very low evidence available for telemedicine selection, however, evidence for the use of an ESI triage model is moderate to high (Gilboy et al., 2005). The GRADE system is used for quality of evidence (Guyatt, et al., 2008). Therefore, selection deducted from ESI systems and clinician experience is considered moderate.

1. Patient must be **stable**.
 - A patient must be alert and oriented or at baseline mental status to be able to schedule telemedicine, otherwise emergency services should be accessed.
 - A patient must be breathing normally without any difficulty breathing otherwise.
 - Emergency services should be accessed if required based on the primary complaint.
 - NO active chest pain patients require immediate provider assessment or should access Emergency services until cardiac emergency has been ruled out.
 - Suspected STROKE or a positive BEFAST screen are not appropriate for family practice and should not have Emergency treatment delayed (Aroor, Singh & Goldstein, 2017).

Telemedicine can be used as a triage assessment to get patients to the correct provider so long as it is done by a qualified medical practitioner functioning within their scope and not delaying Emergency Medical treatment.

Potential **Contraindications** to consider:

- Patient not improving within expected period should be seen in person
- Rashes not improving after first visit should be seen in person
- In home rapid screening tests should be utilized whenever appropriate but may not replace office testing in accuracy and quality – COVID test, strep test, STD kits, flu tests
- Patients not improving after initial antibiotics should be seen in person or have diagnostic testing such as flu, COVID test, chest x-rays or labs
- Abdominal patients may need urine and/or pregnancy testing- these can be done in the office or labs, but telemedicine should not delay these tests.

Neuro exams are more complicated and require visual access or in person medically licensed provider assistance (Portnoy, Waller, & Elliott, 2020)

III. PROCESS AND DEVELOPMENT

STAKEHOLDER INVOLVEMENT

Development group

The overall objective of this guideline is to provide a tool to initiate telemedicine and customize for individual family practice settings and provider preferences. The guideline development group included family practice providers, doctorate prepared providers with expertise in hospital administration, long term care facilities and emergency medicine. The guidelines were based on Medicare/Medicaid guidelines, recommendations from the American Medical Association, Centers for Disease Control, Texas Administrative Code, and the Emergency Severity Index.

Target Population

The health questions covered by this guideline are what patient complaints are appropriate for telemedicine visits versus in person visits. Patients seeking family practice services between the ages of 15 to 65yrs of age. The concerns of the target population are access to care, unnecessary exposure, and time management. These concerns can be addressed in part by utilizing available resources in the home and increasing access to telemedicine.

Evidence base available for Clinical Practice Guidelines

Tx Medicaid Provider Manual for Telecommunication August 2020

1. Telemedicine Modality:
 - Telephone + medical record and/or diagnostic results such as labs or x-rays
 - Telephone + live visual interaction
2. HIPPA:
 - Verbal consent must be obtained
 - Providers must maintain confidentiality just as is done in person all HIPPA standards apply
 - All information obtained must be stored in a client health record
3. Documentation:
 - Consent
 - Diagnosis and or evaluation
 - Explanation of Treatment Plan
4. Prescriptions:
 - Same as in person-issued for a legitimate medical issue as part of a valid practitioner-patient relationship

IV: SUMMARY

The overall objective of this guideline is to provide a tool to initiate telemedicine and customize for individual family practice settings and provider preferences. The health questions covered by this guideline are what patient complaints are appropriate for telemedicine visits versus in person visits. The population targeted for this guideline is a family practice seeing patients primarily between the ages of 15 yr and 65yrs old.

Target user of the guideline: Nursing and support staff scheduling healthcare services delivered by a physician or physician delegate licensed to prescribe: PA, NP, CNS, CNM licensed in the state services are provided acting within scope of practice.

The background of this project is Telemedicine use surged in family practice in 2020 due to the national pandemic. The use of telemedicine surged in popularity and accessibility with insurance approval. Nursing is actively involved in triaging patients for appropriateness for telemedicine.

The practice question is whether a clinical practice guideline for telemedicine would be useful in family practice. The World Health Organization, American Academy of Medicine and Centers for Medicaid and Medicare, Centers for Disease and Control, the Emergency Severity Index have been utilized to gather resources for forming a clinical practice guideline.

The Agree GRS tool was utilized for assessment of effectiveness of this tool. A review of the literature found extremely limited information on clinical practice guidelines for patient selection in family practice. There were position statements and reimbursement requirements as well as requirements for HIPPA. A clinical practice guideline was created based on these position statements, Medicaid and Medicare requirements and deducted from the Emergency Severity Index (ESI) scale. Feedback was assessed from experts in the field and adjustments made accordingly.

The CPG recommends utilizing telemedicine for non-urgent complaints and chronic disease management. Telemedicine can be an excellent way to increase access to primary care and increase compliance with treatment plans. Lab results, home blood pressure logs, blood sugar logs and medication follow ups are easy telemedicine candidates. Telemedicine can also be a great resource for cold and flu symptoms, allergies, and orders for screening exams. Increasing access to primary care providers can serve as a type of triage in and of itself.

V. References

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Appendix C: Texas Medical Association (TMA) Patient Selection Guidelines

Patient Selection



Purpose

To identify patients with certain complaints for which appropriate care may be provided via telemedicine, while overcoming individual barriers (e.g. time, distance, transportation difficulties).

Policy

The practice will consider patients for telemedicine services when such services are determined appropriate, and the same standard of care expected during a face-to-face visit can be met.

Procedure

- Staff and providers will use their best judgement in identifying and referring patients for telemedicine services.
- Patients may be referred for telemedicine services in the following situations:
 - [Acute noncomplicated complaints]
 - [Medication management]
 - [Lab results review]
 - [Chronic care management]
 - [Pre- and post-op care]
 - [Specialty care referral]
 - [Mental health sessions]
 - [Nutrition services]
 - Other situations as determined by the patient's provider
- Patients may be referred for telemedicine services regardless of insurance coverage.
- Once staff/the provider has determined that telemedicine services are appropriate, staff will:
 - Discuss the service with the patient or the patient's legal guardian and obtain written consent (*See Forms: Telemedicine Informed Consent*)
 - Provide the patient with the Telemedicine New Patient Packet
 - Schedule the telemedicine visit
- If the patient is referred to a distant-site provider, staff order and authorize the service. (*See: Clinical : Ch. 19 – Referrals – Telemedicine*)
- Staff explain patient financial responsibilities prior to rendering service. (*See: Clinical: Ch. 19 – Administration and Billing – Telemedicine*)

Approved by: _____ Effective: _____ Revised: _____

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