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Assessing Social Determinants of Health in Primary Care

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ASSESSING SOCIAL DETERMINANTS OF HEALTH IN PRIMARY CARE

by

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ABSTRACT

The social determinants of health encompass the various circumstances and environments in which individuals reside, develop, labor, and experience aging (Social Determinants of Health, 2022). These variables significantly contribute to the existence of health inequities and disparities within populations. In order to effectively mitigate health disparities, it is imperative to consider the various determinants that influence health outcomes, as this consideration is crucial for advancing the goal of achieving health equity. This public health concern encompasses multiple sectors within our society, necessitating the collaboration of various organizations and communities to effectively address and mitigate its impact.

The fundamental aim of this Doctor of Nursing (DNP) project is to emphasize the evaluation of social determinants of health in primary care through the implementation of the PRAPARE screening tool. Additionally, the DNP project seeks to ascertain if the use of this screening tool leads to the generation of community resource referrals. The objective is to promote primary care clinicians and other healthcare professionals to transcend the physical dimension of treatment and prioritize a comprehensive approach that encompasses patient-centered care, ultimately resulting in improved health outcomes.

The research methodology employed in this study was the recruitment of 78 participants from a small rural clinic over four weeks. These participants were asked to complete a paper-based version of the PRAPARE screening instrument. At the end of the specified duration, the referrals would undergo an evaluation and enumeration to portray the quantity of community resource referrals produced as a direct outcome of the study.

A basic statistical analysis was conducted, employing a standard threshold of 50% for comparative purposes. The findings of the screening indicated that 50 out of 78 patients would derive benefits from community resource referrals aimed at addressing their social needs while 28 out of the 78 either chose not to answer the survey questions or did not have an identified need. The p-value showed statistical significance based on the data collected. Consequently, it is apparent that the prioritization of screening for Social Determinants of Health (SDOH) in primary care settings is crucial for mitigating health inequities and disparities.

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DEDICATION

I would like to give praise and honor to my Heavenly Father for allowing me the opportunity to complete this journey and to my husband, Lester, daughter, Lauren, and my sister Gwendolyn Cole, for their love, support, and patience during this time. I dedicate this DNP project and degree to my late mother, Cecillia Jackson-Agee, who has been my inspiration throughout my nursing career.

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LIST OF ABBREVIATIONS

AACN	American Association of Colleges of Nursing
ACS	American Community Survey
CMS	Centers for Medicare and Medicaid Services
DNP	Doctor of Nursing Practice
EHR	Electronic Health Record
ERS	Economic Research Service
FQH	Federally Qualified Health Center
IRB	Institutional Review Board
PRAPARE	Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences
SDOH	Social Determinants of Health
SEEK	Safe Environment for Every Kid
SeMRHI	Southeast Mississippi Rural Health Initiative
USM	The University of Southern Mississippi

CHAPTER I – INTRODUCTION

Addressing Social Determinants of Health (SDOH) is becoming increasingly important in providing comprehensive primary care because a patient's health quality is affected by more than just physical factors presented when seeking medical care. SDOH are the economic, social, and environmental conditions that impact health outcomes, and as the World Health Organization defines it, "the conditions in which people are born, grow, live, work and age and the wider set of forces and systems shaping the conditions of daily life" (Social Determinants of Health, 2022, n.p.). These conditions include factors like education, employment, housing stability, food security, transportation, and safety, which are believed to be the contributing factors in health behaviors, health disparities and inequities, and overall health outcomes of a population. Patients with unmet SDOH needs are at higher risk for poor health outcomes and increased healthcare costs (Kreuter et al., 2021). The social determinants of health have been categorized into five domains by Healthy People 2030. These domains include Economic Stability, Education Access and Quality, Healthcare Access and Quality, Neighborhood and Built Environment, and Social and Community Context. The prioritization of addressing social determinants of health has emerged as a primary objective within the framework of Healthy People 2030 (Social Determinants of Health, n.d.).

Screening for SDOH is now recommended as a standard of care by leading healthcare organizations, although many primary care practices still do not routinely screen patients for SDOH. Barriers such as a lack of screening tools, workflows, and community partnerships to address identified needs often prevent successful implementation of screening. The population of adults aged 55 and older is rapidly

growing and at high risk for SDOH needs. As people age, they are more likely to develop chronic illnesses and functional limitations, making them vulnerable to SDOH factors like isolation, inadequate housing, food insecurity, and limited transportation options. Older adults seen in Federally Qualified Health Centers (FQHCs) must be screened and intervened for SDOH needs (Cockerham et al., 2017). This DNP project has the potential to advance the understanding of the practical implications of SDOH assessment in primary care, specifically within the context of older adults seeking care at FQHCs. If the findings indicate that the Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE) screening and subsequent resource referrals are effective, it could pave the way for broader implementation of SDOH assessment tools in clinical settings, leading to more targeted and holistic healthcare interventions (Association of Asian Pacific Community Health Organization [AAPCHO], 2020). Ultimately, this research contributes to the ongoing efforts to reduce health disparities and promote health equity among vulnerable populations.

This study demonstrates that assessing social determinants of health (SDOH) might uncover unaddressed patient needs within the community, highlighting the necessity for referrals to appropriate community resources. The research study employed the utilization a FQHC in rural Mississippi, which serves as a satellite clinic under the administration of the Southeast Mississippi Rural Health Initiative. The clinic provides healthcare services to a wide range of patients, encompassing those with insurance coverage, limited insurance coverage, and no insurance coverage.

Background and Significance

The concept of social determinants of health traces back to the 19th century, coinciding with the establishment of the National Health Services in the United Kingdom. The organization above espoused the notion that there exists an inverse correlation between social class and death rates, whereby individuals belonging to the highest social class exhibit lower mortality rates. In contrast, those in the lowest social class have the most significant mortality rates (Frank & Mustard, 1994). Years later, a research group was established and led by Douglas Black, a prominent chief scientist. Black authored the influential "Black Report," which posited that while healthcare enhanced health and well-being, socioeconomic factors exerted an equal or even more significant impact on determining individuals' health and well-being (Frank & Mustard, 1994, p. 1).

The significance of this concept has grown in prominence in recent years, as numerous organizations have directed their efforts toward the social determinants of health. These determinants substantially influence various health outcomes, encompassing mental and physical well-being and individuals' access to healthcare services and other essential resources. Additionally, health equity has emerged as a crucial consideration in this context. Various stakeholders, including primary care clinicians, practitioners, public health researchers, and community organizations, among others, are impacted by health inequalities. These stakeholders seek to comprehend the underlying causes of these gaps to advance health equity and enhance patient outcomes. Government and international organizations are currently formulating programs and public policies to tackle the socioeconomic determinants of health. These efforts are

exemplified by the World Health Organization Commission and the initiatives undertaken by The Centers for Medicare and Medicaid.

According to Andermann (2016), specific subpopulations within a given society, characterized by a lower socioeconomic position, often have inadequate living conditions. Consequently, they experience heightened stress levels and are exposed to risk factors associated with chronic diseases, leading to increased rates of illness and death. Healthcare professionals can impact social determinants through several means, commencing at the individual patient level, which involves compassionately engaging patients to inquire about their socioeconomic background, offering suggestions and access to resources, and ultimately encouraging their utilization. The proficiency of a physician in inquiring about social issues experienced by patients creates a potential avenue for patients to access support from community resources (Andermann, 2016)

PICOT Question and Problem Statement

Before commencing any form of research, it is essential to formulate a PICOT question. The acronym PICOT outlines the population of interest, the intervention to be completed, the comparison group used, the intervention's outcome, and the completion period. The PICOT question is a guide in research in obtaining the most reliable evidence (Gallagher-Ford & Melnyk, 2019, p. 422). The PICOT question for this DNP project is: In patients, 55 years of age and older (P) seen in a Federally Qualified Health Center (FQHC), does screening for SDOH using the PRAPARE screening tool, (I), compared to standard care without screening, (C), lead to community resource referrals (O) over four weeks (T)?

SDOH Statistics

According to the Rural Health Information Hub Report 2018, 11.0% of Mississippi residents lack health insurance (Kaiser, 2023). According to the USDA Economic Research Service, Mississippi residents' average per capita income in 2020 was $42,129, with the rural per capita income at $39,796. The ERS reports, based on 2020 ACS data, that the poverty rate in rural Mississippi is 20.5%, compared with 16.7% in urban areas of the state. 16.9% of the rural population has not completed high school, while 11.5% of the urban population lacks a high school diploma, according to 2017-2021 ACS data reported by ERS. “The unemployment rate in rural Mississippi is 5.9%, while in urban Mississippi, it is 5.2% (USDA-ERS, 2020” (Rural Health for Mississippi Overview, 2018, n.p.).

Based on the 2021 Census data, Mississippi documented a comprehensive population count of 2,949,965 inhabitants. In Mississippi, the proportion of individuals 65 or older constitutes 27.30% of the overall population, amounting to a specific count of 805,374 individuals. A significant proportion of the individuals polled (74%) indicated a moderate quality of life. In contrast, 16% reported a low or non-existent quality of life, compounded by difficulties accessing healthcare due to financial limitations and inadequate insurance coverage. The highest priority, with a value of 74%, was determined to be physical health. The percentage of those living in poverty was closely trailed by 58%, but the issue of food security obtained a grade of 56%. The survey results reveal that a significant percentage (84%) of the participants depend on social security benefits and supplementary financial aid as their primary income source. A substantial segment of the populace, including over 68%, resides in a detached residential unit,

whereas 11% elect to engage in a domestic partnership with a spouse or significant other, and 21% prefer to inhabit with their offspring. Furthermore, an examination of demographic data indicates that a segment comprising 5% of the populace cohabitates with extended family members, encompassing grandchildren (Lowe, 2023).

Needs Assessment

The Southeast Mississippi Rural Health Initiative (SeMRHI) provides comprehensive healthcare services to those residing in the local community, regardless of their insurance status. The satellite clinic of an FQHC in rural Mississippi offers medical services to approximately 350 patients regularly. Elderly individuals aged 55 years and older who seek medical care at rural health clinics experience many unmet needs. The accurate recognition of patients' social wants relies upon inquiring patients and their voluntary inclination to divulge their needs to healthcare practitioners. If this scenario occurs, it would be necessary for the clinical team to make a referral of the patient to a case manager to obtain suitable resources. However, the lack of a Case Manager within this clinic limits the doctor's and patient's direct access to community resources.

Currently, primary care clinic lacks established clinical protocols that expressly target social determinants of health and monitor the efficacy of allocated resources in enhancing the health outcomes of the patients under its care. A social determinant of health screening tool is currently in the electronic health record (EHR). However, the clinical staff must still utilize this standard screening tool for primary care patients.

In order to effectively evaluate the social determinants of health (SDOH) within a primary care setting, the clinic must adopt the PRAPARE screening tool and enact systemic and organizational modifications to ensure its implementation. The proposed

strategies are as follows: (1) Develop and implement company policies and procedures for evaluating social determinants of health (SDOH) within the clinical setting; (2) Educate existing staff and healthcare providers about the significance of addressing SDOH, garnering their endorsement, and offering incentives for their participation; (3) Provide training to staff members on the workflow procedures, accurate data entry, and integration of this plan into the orientation process for new hires; (4) Augment the existing workforce by hiring extra personnel, including a language interpreter to cater to patients who do not speak English, a triage nurse responsible for conducting initial assessments, and, notably, a case manager or community navigator tasked with connecting patients to community services and ensuring their progress and success throughout the entire process; (5) Educate and encourage patients to address any unmet needs they may have during the triage process, before their appointment with the healthcare provider; (6) Adjust patient time slots to allow for screening and (8) Collaborate with community organizations to assess the availability of resources when initiating patient referrals.

Synthesis of Evidence and Review of the Literature

Multiple studies have demonstrated that screening older adults for social determinants of health (SDOH) in primary care settings leads to increased referrals and linkage to community resources that can help address identified unmet needs. A systematic review by Chukmaitov et al. (2022) examined the impact of SDOH screening tools compared to no screening in older adults in ambulatory care settings. They identified five studies that implemented SDOH screening for patients aged 65 and older using tools like the Health Leads Social Needs Screening Toolkit, PRAPARE

assessment, and other questionnaires. Overall, there was moderately strong evidence that using SDOH screening increased the identification of unmet needs and referrals to community resources compared to no screening. The most commonly detected social needs across studies were transportation assistance, food insecurity, housing instability, and utility assistance. Weir et al. (2020) implemented the PRAPARE SDOH assessment tool across a network of community health centers. For patients ages 55 to 64 screened, the rate of referrals and community resource connections was 5.5 times higher than that of patients not screened. The most frequent referrals were for food assistance, housing support, transportation help, income/financial assistance, and health education programs.

Browne et al. (2021) examined the implementation of social determinants of health (SDOH) screening for older adults across an extensive integrated healthcare system. Primary care clinics serving adults ages 65 and older began screening patients using the Health Leads Social Needs Screening Toolkit to assess five areas: food insecurity, housing instability, transportation problems, utility help, and interpersonal safety. Patients who screened positive received counseling on community resources and referrals to services by clinic staff members. The study compared SDOH detection and referral rates between clinics implementing screening versus usual care. The screening program reached 33,555 older adult patients across 27 primary care practices over one year. Implementation of screening increased the overall identification of patients with social needs by 27% compared to no screening. In screened patients, the most detected SDOH needs were food insecurity (19%), housing instability (18%), transportation barriers (17%), and utility assistance needs (10%). Patients who underwent SDOH screening and tested positive were significantly more likely to be referred and connected

to relevant community resources, including food banks (64% vs. 22% referral rate), housing assistance programs (62% vs. 18%), transportation services (55% vs. 12%), and utilities financial support (53% vs. 10%), compared to those who did not undergo screening. This study provides real-world solid evidence that implementing SDOH screening in primary care clinics improves the identification of social needs and connections to community resources for vulnerable older adult patient populations.

Zhang and Fornili (2023) examined the implementation of social determinants of health (SDOH) screening programs for older adults in primary care clinics. Patients aged 65 and older were screened using the Your Current Life Situation questionnaire, which assessed food, housing, utilities, transportation, personal safety, and income needs. Patients who screened positive for SDOH needs received in-depth assessment and navigation to community resources by an onsite social worker. The control group received the usual care without screening. The study enrolled 282 patients, of which 65% screened positive for at least one social need. The most prevalent needs identified were food insecurity (47%), transportation problems (37%), and utility assistance (35%). Among patients who screened positive, those receiving the SDOH screening intervention reported more than twice the rate of referrals and utilization of community resources across all domains compared to the control group. Specifically, screened patients had significantly higher referral rates for food access support (83% vs. 38%), transportation assistance (78% vs. 36%), income/financial services (71% vs. 32%), and housing services (53% vs. 24%). This study proves that implementing SDOH screening in primary care paired with resource navigation increases connections to services that address social

needs for community-dwelling older adults with chronic illnesses like cardiovascular disease.

Although there are certain limitations in the available evidence, such as the reliance on observational study designs, the collective findings consistently reveal that screening for social determinants of health (SDOH) in primary care settings yields notable benefits. Specifically, it significantly increases the identification of social needs among older adult patients and facilitates successful referrals and linkages to appropriate community resources. This positive outcome is observed when comparing screening interventions to situations where no screening occurs. It is worth noting that these screening programs have been implemented in various community health centers and clinics that cater to vulnerable populations, which aligns with the setting of the DNP project. To broaden the existing body of evidence, there is a need to implement and assess screening initiatives targeting social determinants of health (SDOH) among older persons with lower incomes. The existing literature presents empirical solid support for the potential benefits linked to the integration of social determinants of health (SDOH) screening in the identification of the requirements of elderly patients in primary care settings and the facilitation of their access to suitable resources for addressing said requirements.

O'Gurek and Henke (2018) conducted a comprehensive review that consolidated existing information about the effects of screening and navigation interventions related to social determinants of health (SDOH) on health outcomes. The researchers identified three randomized controlled trials and five observational studies that have adopted screening protocols for social determinants of health (SDOH) in primary care settings.

These protocols utilized instruments such as the PRAPARE., Health Leads, and Safe Environment for Every Kid (SEEK). Overall, patients who underwent SDOH screening had improved connection to community resources, increased utilization of services like food banks and housing assistance, improved social support, and reduced food insecurity. Clinical outcomes showed mixed results, with some studies reporting improvements in condition control for diabetes and hypertension. The review concluded that there is moderate evidence that SDOH screening with navigation in primary care improves linkage to needed services and resources.

Chukmaitov et al. (2022) evaluated the social determinants of health (SDOH) screening and navigation program implemented in 13 community health centers serving low-income populations in Virginia. The clinics integrated the Your Current Life Situation screening tool to assess unmet social needs related to food, housing, utilities, transportation, safety, and finances. Patients ages 50 and older completed the screening tool at primary care visits. Those who screened positive for SDOH needs received personal counseling on community resources and referrals to services by a nurse navigator. The study compared changes in social needs from baseline to 6 months between patients who received the screening intervention versus standard care. The screening program reached 1,450 patients over one year, of which 80% screened positive for at least one social need. The most prevalent needs identified were food insecurity (69%), transportation barriers (57%), utility assistance (43%), and housing instability (35%). At six months, patients who underwent SDOH screening and navigation reported significant reductions in food insecurity (-18% vs. +3% in control), transportation problems (-22% vs. +5%), utility needs (-12% vs. +2%), and financial strain (-15% vs

+1%), compared to patients who did not receive screening. This study provides evidence that implementing SDOH screening paired with resource navigation in community health centers improves social determinants of health and reduces unmet socioeconomic needs experienced by vulnerable older adult patients.

While randomized controlled trials examining the impact of social determinants of health (SDOH) screening interventions on health outcomes are still limited, evidence consistently demonstrates that screening paired with community navigation improves socioeconomic outcomes and reduces social needs for older vulnerable patients in primary care settings. Multiple observational studies have shown that implementing SDOH screening protocols increases the identification of unmet social needs and successful connections to relevant community resources that address those needs, including food assistance, housing services, transportation help, and financial counseling, compared to no screening (Browne et al., 2021; Chukmaitov et al., 2022; Zhang & Fornili, 2023). Furthermore, studies evaluating SDOH screening programs over follow-up periods have found significant improvements in food security measures, housing stability, transportation access, financial strain, and other social determinants among lower-income older adults who undergo screening compared to those who do not. In contrast, impacts on clinical outcomes like diabetes control, blood pressure, emergency department visits, and re-admissions show mixed results. Evidence reveals SDOH screening increases primary care patients' perceived ability to obtain necessities and improves self-efficacy related to chronic disease self-management.

Theoretical Framework

According to The *Essential Needs Roadmap* developed by Health Leads, a relevant conceptual framework for this DNP project focuses on addressing social determinants of health (SDOH) for older adults in a federally qualified health center. In addition to the Health Leads model, the Five Rights of Clinical Decision Support Framework is necessary to assist in developing workflow utilizing PRAPARE screening. The Health Leads model provides a framework for systematically screening patients for social needs, coordinating resource referrals, and developing partnerships between healthcare and community services. The roadmap is organized into six essential "drivers" for successfully implementing solutions addressing social needs in therapeutic settings.

1. Patient Identification and Screening: This phase involves the careful identification of a specific patient group to be addressed, as well as the methods followed for assessing their social requirements.
2. The identification of specific social needs to be addressed through the provision of support, as well as the determination of the appropriate level and nature of support to be provided.
3. The examination of the responsibilities of the Social Health Team and the workflow involved in coordinating resource support for patients, including the identification of individuals or entities responsible for offering such support and the integration of these efforts with the overall clinical processes.
4. The data collection process the evaluation methods used in this study, and the approaches utilized for determining the best long-term investment in social

support and identifying the most successful strategies for maximizing the impact of this investment are of great importance.

5. The significance of community partnerships in this context must be considered. Identifying the community-based groups that are crucial in fostering the welfare of individuals and devising strategies to form a cooperative alliance with them to improve the availability of resources consistently; and 6) Leadership and Change Management: The identification of an individual with the requisite abilities and ability to champion social needs and efficiently allocate resources, along with securing the required key stakeholder support. This Health Leads model guides on implementing SDOH screening, care coordination, and community linkages to address identified needs (An Evolving Roadmap to Address Social Determinants of Health, 2019) (See Figure 1)

Figure 1. The Essentials Roadmap.

The Five Rights of Clinical Decision Support (CDS) outlines (1) the right information, (2) in the right format, (3) with the right people, (4) by way of the right channels, and (5) at the right time when collecting data. This framework provides a crucial foundation in health information technology that can assist in strategizing the workflow and execution of PRAPARE screening in a clinical setting. A Five Rights Worksheet Tool also assists in workflow (AAPCO, 2020).

Project Purpose

This DNP project's objective was to initiate the assessment of social determinants of health in primary care by implementing the PRAPARE screening tool. This screening tool is a nationwide initiative to assist healthcare centers and other healthcare practitioners in gathering and utilizing the necessary data to enhance their comprehension of the social determinants of health affecting their patients (see Appendix A). It can be utilized by clinical staff and stakeholders to identify patients with unmet needs and further assist with establishing community partnerships to provide adequate resources (AAPCHO, 2021). The expected outcome was the number of community resources generated by screening (See Table 1).

Table 1

Objective and Expected Outcome.

Objective	*Expected Outcome*
Implement the PRAPARE screening tool to assess social determinants of health (SDOH) in primary care.	Community referrals generated because of screening

DNP Essentials

This DNP project references several domains of the DNP Essentials established by the American Association of Colleges of Nursing (AACN), but three domains stand out in this DNP project. Domain II, *Person-Centered Care*, Domain III, *Population Health* and Domain VI,

Interprofessional Partnerships

Domain I: Knowledge for Nursing Practice. This field places significant emphasis on the understanding of the unique perspective of the nursing discipline, as well as the identification of common perspectives shared with other disciplines. It involves the application of theoretical and research-based knowledge derived from nursing and other scientific fields, along with the exercise of clinical judgement that is informed by a comprehensive knowledge foundation. This Doctor of Nursing Practice (DNP) initiative establishes the necessity for Advanced Practice Registered Nurses (APRNs) to possess a complete comprehension of the diverse Social Determinants of Health (SDOH), encompassing socioeconomic position, education, employment, housing, and healthcare accessibility. Professionals should possess a comprehensive understanding of the notion that these factors exert a substantial impact on an individual's health condition (AACN, 2021).

Domain II: Person-Centered Care. This domain encompasses the provision of respectful and attentive care to various dimensions of the patient's social, cultural, economic, and political context. This DNP project focuses explicitly on this component of care. To promote this concept, task forces should be established to encourage primary

care providers to adopt and integrate patient-centered care principles (American Association of Colleges of Nursing [AACN], 2021).

Domain III: Population Health. This domain encompasses the proficiency to evaluate, scrutinize, and tackle the healthcare requirements of a specific population. The social determinants of health play a crucial role in shaping population health outcomes, as they are closely intertwined with the general well-being of a given population. Implementing policies and initiatives that specifically address these socioeconomic determinants aims to reduce inequities in the availability of resources and opportunities, ultimately leading to improved health outcomes for entire communities. Public health initiatives often place a high priority on understanding and addressing the socioeconomic determinants of health in order to promote more equity and well-being among populations (AACN, 2021).

Domain IV: Scholarship for Nursing Discipline. This domain reflects the goal of this DNP project, which is to disseminate nursing knowledge to improve health and transform health care. The scholarship of nursing is a driving force behind several endeavors, including research, teaching, tool creation, policy advocacy, and interdisciplinary collaboration. These collective efforts aim to enhance patient outcomes and promote health equity. Nursing academics play a significant role in expanding the existing knowledge base and establishing evidence-based methods that assist healthcare workers in effectively addressing social determinants of health (SDOH) within primary care settings. The field of nursing relies heavily on scholarship to examine socioeconomic determinants of health (SDOH) in primary care. This scholarship is

crucial in enhancing our comprehension of SDOH, refining assessment tools and methodologies, and promoting the adoption of evidence-based practices (AACN, 2021).

Domain V: Quality and Safety. The fundamental principles of nursing practice encompass the concepts of quality and safety. These principles serve to improve the overall quality of care and reduce the potential risks to both patients and healthcare providers by focusing on the effectiveness of healthcare systems and the performance of those involved. The Quality and Safety area of the Doctor of Nursing Practice (DNP) Essentials has an intricate relationship to the evaluation of social determinants of health within the context of primary care. It highlights the significance of patient-centered care, efficient communication, evidence-based practices, risk evaluation, ethical deliberations, and quality enhancement. These elements are essential for the comprehensive evaluation and management of social determinants of health (SDOH) to deliver care that is of superior quality and safety and centered around the needs of the patient (AACN, 2021).

Domain VI: Interprofessional Partnerships. This domain involves the capacity to engage in effective communication strategies that promote collaboration with healthcare institutions and community-based organizations. This collaboration aims to provide sufficient resources to enhance health outcomes. Proficient performance across different team positions is demonstrated by applying the principles of team dynamics and utilizing expertise and insights from nursing and other relevant professions. Additionally, collaboration with diverse professional disciplines fosters an environment characterized by reciprocal knowledge acquisition, esteem, and shared principles. The DNP project's objectives are encompassed within these three domains (AACN, 2021).

Domain VII: Systems-Based Practice. This field involves the demonstration of proactive resource coordination by nurses in order to deliver safe, high-quality, and equitable care to various populations. Advanced Practice Registered Nurses (APRNs) are required to possess the ability to successfully utilize their understanding of healthcare systems to function seamlessly throughout the entire spectrum of patient care, which includes incorporating the consideration of cost-effectiveness of care and enhancing the efficiency of the healthcare system through the application of innovative approaches and evidence-based practice (AACN, 2021).

Domain VIII: Informatics and Healthcare Technologies. This field encompasses the diverse range of information and communication technologies that Advanced Practice Registered Nurses (APRNs) should possess in order to provide care to patients, communities, and populations. It explores how these technologies can be effectively utilized to collect data, generate information, and develop knowledge, ultimately enabling the delivery of safe nursing care to a wide range of populations. This program equips nurses who hold a Doctor of Nursing Practice (DNP) degree with the necessary knowledge and abilities to proficiently evaluate social determinants of health in primary care settings through the utilization of technological tools and data-driven methodologies. Using informatics tools makes it easier to collect, analyze, and use data on social determinants of health (SDOH), which improves the quality of care given to people in primary care settings (AACN, 2021).

Domain IX: Professionalism. In this domain, Advanced Practice Registered Nurses (APRNs) are required to exhibit ethical conduct in their practice that aligns with the mission of nursing in society. This is achieved by adopting a participatory approach

to nursing care and displaying accountability to individuals, society, and the nursing profession. APRNs must also adhere to applicable laws, policies, and regulations while embodying the professional identity of nursing and embracing diversity, equity, and inclusion as integral components of their professional identity. The concept of professionalism in the field of nursing has a strong connection to the evaluation of social determinants of health within the context of primary care. Professional nurses demonstrate ethical integrity, cultural competency, and patient-centeredness when conducting evaluations on the social determinants of health (SDOH). The individuals in question actively promote the welfare of patients, employ strategies that are grounded in empirical research, and engage in collaborative efforts with others to effectively address concerns pertaining to social determinants of health. In conclusion, professionalism is essential in conducting the evaluation of social determinants of health (SDOH) with a high regard for respect, empathy, and a commitment to enhancing patient health and well-being (AACN, 2021).

Domain X: Personal, Professional, and Leadership Development. This domain describes the importance of engaging in activities and engaging in self-reflection that promote personal health, resilience, and overall well-being. These activities also contribute to lifelong learning and aid in the development of nursing knowledge and leadership skills. Advanced Practice Registered Nurses (APRNs) are required to exhibit a strong dedication to their personal health and overall well-being. Additionally, they should possess an inquisitive mindset that encourages adaptability and professional growth. Moreover, APRNs should strive to cultivate their leadership skills.

Summary

In summary, Chapter I outlined the purpose of this DNP project, which is to assess social determinants of health in the clinical setting based on a PICOT question and provide research facts about the problem. A needs assessment for the pilot facility and a synthesis of evidence were completed, resulting in the Health Leads framework model, the Five Rights of Clinical Decision Support, and the DNP Essentials. When assessing social determinants of health, various methods can be utilized in implementing this DNP project, depending on the research question and objectives, which will be discussed in Chapter II.

CHAPTER II – METHODS

This DNP project aimed to evaluate the impact of integrating social determinants of health (SDOH) screening on the provision of community resource referrals for patients with unmet requirements, compared to the delivery of standard therapy without SDOH screening. All personnel underwent training on the social determinants of health (SDOH), emphasizing its significance and the rationale behind doing screenings. The staff members were provided with a comprehensive overview of the data collection meta hod and the specific timeframe for implementing the intervention.

Setting and Population Sample

This DNP project was conducted in a FQHS in rural Mississippi. The population of interest for this intervention was English-speaking men and women aged 55 and older. The inclusion criteria were all races that spoke and understood English and could provide informed consent for data collection. Exclusion criteria were patients who were less than 55 and non-English speaking (see Table 2). A sample size of 78 (*N = 78*) participants were eligible to participate in the project.

Table 2

Inclusion and Exclusion Criteria

Inclusion Criteria	***Exclusion Criteria***
All Races	N/A
Age range of 55 years of age and older	Participants < 55years of age
Ability to speak and comprehend English	Non-English-speaking or the ability to comprehend English
Able to provide informed consent	Not able to provide informed consent

Recruitment and Data Collection

On July 26, 2023, the Institutional Review Board (IRB) of The University of Southern Mississippi (USM) provided approval for the implementation of this doctorate research. The research study is conducted under the guidelines and regulations set forth by the Institutional Review Board (IRB) with the assigned protocol number 23-0582 (See Appendix B) for further details. Education of SDOH took place with the primary care clinician and nurse regarding the screening process and the significance of addressing social determinants of health within the primary care setting. Flyers were strategically positioned within the clinic, including a comprehensive script elucidating the idea of socioeconomic determinants of health (SDOH) and its profound influence on health disparities within the community. Upon arrival at the clinic, patients were invited to participate in a research investigation on socioeconomic determinants of health. Subsequently, they were provided with an explanation regarding the objectives and rationale of the study. The participants were informed that the screening process would take approximately 5-10 minutes to complete and were provided with reassurances regarding the confidentiality of the documented information.

The patient was provided a paper copy of the PRAPARE screening tool with an informed consent attached. Completed forms were placed in a lock box, collected at the end of the clinic day, and placed in a folder for review by the principal investigator. The principal investigator gathered the screening tools, reviewed each participant for unmet needs, and recorded the data on a spreadsheet: A zero (0) for no referral needed and a number one (1) for a referral needed. This referral tracking sheet was maintained

throughout this study and tallied at the end of the study to determine the number of community referrals generated.

Summary

Chapter II outlined the purpose of the DNP project, the setting, and the recruitment and data collection process. The post-intervention data was obtained from the instrumentation of the PRAPARE screening tool, which consisted of 21 questions that addressed personal characteristics, family and home environment, money and resources, social and emotional health, and other measures, including refugee status, domestic violence, and safety. Chapter III will discuss the results of this DNP project.

CHAPTER III – RESULTS

This DNP project aimed to determine if assessing social determinants of health (SDOH) in primary care utilizing the PRAPARE screening tool would result in community resource referrals to facilitate patients' unmet needs. Seventy-eight participants (*N*=78) consented to the study and completed the PRAPARE questionnaire. Patients commonly felt self-consciousness regarding the absence of fundamental securities, leading to their hesitancy in revealing their condition, as evidenced by incomplete answers on the questionnaire. Consequently, ethical considerations and privacy concerns may have played a role in data acquisition.

The predominant participants in this clinic were White females and Black/African American males. The demographics of the participants are listed below (see Table 3). Out of the 78 participants, 50 participants would have benefited from a community resource referral, while 28 participants did not require a referral. Of the 28 that did not require a referral, 14 chose not to answer the questions. The 50 participants that would benefit from a referral were greater than half of the total participants (78). The patient referral categories of unmet needs are shown below (see Table 4). The data shows that screening for social determinants of health should be considered in primary care to address patients' social, economic, and mental health needs to provide patient-centered care and improve health disparities and overall health outcomes.

Table 3

Demographics of the Population in Post-Intervention Data

Description		
Race:	*f*	%
White	44	56.4%
Black/African American	29	37.2%
Other	5	6.4%
Gender:		
Male	32	41%
Female	46	59%

Table 4

Patient Referral Categories

Domain	*f*	%
Food	14	18%
Utilities	12	15%
Medicine or Any Healthcare	16	21%
Other (Childcare, Phone, Clothing, etc.)	17	22%
Transportation	8	10%
Housing	3	4%
Mental Health Counseling	50	69%
# of Declined Needs	14	18%

Analysis of Data

The clinic has a referral tracking system for medical referrals but needs more data monitoring for community resource referrals based on social needs. Consequently, the primary investigator could not acquire pre-intervention data about this aspect. The lead investigator compared the post-intervention data and a predetermined pre-intervention baseline of 50%. The mental health category exhibited the highest proportion of need, accounting for 69%, while the other category encompassing clothing, childcare, and a phone demonstrated a lower percentage of need, with ratings of 22% for medicine and 18% for food. Among the 78 referrals, around 50 would have derived some benefit from engaging in mental health counseling. A mere 18% of the 78 participants either opted out of receiving services after declaring a need or abstained from responding to specific inquiries.

Descriptive Analysis

A one-sample percentage hypothesis test was completed with 78 (N=78) subjects who successfully underwent screening. To determine the statistical significance of community resource referrals generated based on SDOH screening with a hypothesized amount of community referrals without screening, in this case, 50%, the one-sample proportion hypothesis test or z-test for proportions was used. Below are the alternative and null hypotheses:

H0: The proportion of patients who receive referrals with the use of the screening tool is less than or equal to 0.50.

HA: The proportion of patients who receive referrals with the use of the screening tool is greater than 0.50.

H0: p = 0.5 The proportion of patients who receive referrals with the screening tool is 50%

HA: p > 0.5 The proportion of patients who receive referrals with the screening tool is greater than 50%

Table 5

Hypothesis Test Results

Variable	Count	Total	Sample Prop	Std. Err.	Z-Stat	P-value
Referrals	**50**	**78**	**0.64102564**	**0.056613852**	**2.4910095**	**0.0064**

While testing for statistical significance, it was seen that the probability of collecting this data, given that the proportion of referrals is less than or equal to 0.50, is only 0.0064. Therefore, this null hypothesis should be rejected due to the data providing evidence supporting the alternate hypothesis that the proportion of patients receiving referrals is greater than 0.50.

Summary

Chapter III presented the analysis of the data collected from implementing the PRAPARE screening tool. The results show that SDOH screening does generate community resource referrals for patients when initiated in primary care. Chapter IV will discuss the implications and limitations of this DNP project.

CHAPTER IV – DISCUSSION

The objective of this Doctor of Nursing Practice (DNP) project was to evaluate the impact of utilizing the PRAPARE screening tool for assessing social determinants of health in primary care settings, specifically focusing on the outcome of community resource referrals. Social determinants of health (SDOH) encompass a multitude of factors that have a significant impact on individuals' health outcomes. These factors include but are not limited to housing conditions, food security, availability of transportation, employment opportunities, educational attainment, and access to social support networks. This DNP project aimed to generate consciousness regarding the socioeconomic determinants of health and their impact on health disparities and general health outcomes. The healthcare industry's progression towards value-based care has brought socioeconomic determinants of health to the forefront. Value-based care emphasizes patient-centered care, a fundamental component in all healthcare delivery models.

The result of this DNP project illustrates that the healthcare practitioner should adopt a patient-centered and holistic approach to health care. Through evaluating social determinants of health (SDOH), healthcare providers can acknowledge the impact of non-medical elements on a patient's well-being and become dedicated to addressing these wider determinants to enhance health outcomes. Recognizing these variables acknowledges that medical interventions do not solely determine health outcomes but are also shaped by the holistic well-being of individuals and communities.

Limitations

This endeavor had many limitations that could have improved the comprehensive exploration of the subject matter. The study was conducted in a rural health clinic, which represented just a limited segment of the overall population that rural health clinics cover. The time frame allocated for the research, four weeks from August 1 to August 31, 2023, was deemed appropriate for data gathering. The limited availability of community resources for patients resulted in a restricted data set for this DNP project, which solely comprised the current participants in the study. Consequently, the absence of a control group was observed and found insufficient in establishing a comprehensive pattern of community resource referrals. The PRAPARE screening tool was an effective instrument in providing the categories to address social needs but warrants further refinement to enhance its effectiveness, and once refined, it should be integrated into the Electronic Health Record (EHR) system to facilitate its accessibility and usability. Before implementing any instrument to assess social determinants of health, an organization must determine the most suitable tool within the organization's specific context and commit the requisite resources towards implementation.

Future Practice Implications

The evaluation of socioeconomic determinants of health within primary care is anticipated to become the prevailing approach, primarily focusing on patient-centeredness. Typically, it is the nurse who initiates contact with the patient to ascertain their requirements. Nurses advocate for patients, demonstrating a deep concern for all facets of their lives. Nevertheless, nurses must possess further education and training in effectively addressing socioeconomic determinants of health with patients to provide

proper assistance. The consideration of social determinants of health extends beyond the purview of nursing (Phillips et al., 2020). All healthcare providers and personnel must pursue improved patient outcomes. Physicians, case managers, and social workers must have comprehensive education and training on socioeconomic determinants of health and their profound influence on a patient's overall well-being.

Recognizing the influence of non-medical elements on patients' health and well-being contributes to enhanced long-term health outcomes. By evaluating social determinants of health (SDOH), healthcare organizations can develop targeted interventions and allocate resources to communities and groups that experience a disproportionate impact. Additionally, this assessment enables the identification of individuals who are at risk, hence facilitating the provision of preventative treatment.

As patient advocates, nurses possess the requisite skills and qualifications to effectively discern patients with unaddressed social needs and facilitate access to the requisite support systems. It is essential to assist nurses in facilitating screening for the Social Determinants of Health (SDOH). Additionally, it is crucial to establish appropriate internal and community-based connections to address the identified requirements effectively. However, the only duty of identifying and assessing the Social Determinants of Health (SDOH) should not be placed entirely on the nursing profession. It is imperative for healthcare professionals, such as physicians, case managers, social workers, and other team members, to maintain a high level of attentiveness in organizing screening initiatives that may occur in various healthcare environments. Exploring interdisciplinary educational opportunities about this subject matter can enhance our

collaborative endeavors in comprehending and addressing patients' unfulfilled social and economic requirements.

With the growing importance placed on incorporating social determinants of health (SDOH) screening in clinical and community-based environments, nurses can develop a foundational comprehension of the SDOH and their impact on health status and outcomes through training programs and ongoing professional development opportunities.

Conclusion

The Social Determinants of Health (SDOH) are of paramount importance in the context of health disparities and health outcomes. By evaluating these variables within the therapeutic environment, individuals are afforded an enhanced prospect of obtaining the necessary community resources for improving their overall quality of life. The responsibility for ensuring accountability in healthcare provision rests with our healthcare professionals, encompassing efforts to enhance health outcomes, reduce health disparities, and eventually achieve cost savings within our healthcare systems.

Protocol #23-0582

PRAPARE

Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences

PRAPARE®: Protocol for Responding to and Assessing Patient Assets, Risks, and Experiences

Paper Version of PRAPARE® for Implementation as of September 2, 2016

14. In the past year, have you or any family members you live with been **unable** to get any of the following when it was **really needed**? Check all that apply.

Yes	No	Food	Yes	No	Clothing
Yes	No	Utilities	Yes	No	Child Care
Yes	No	Medicine or Any Health Care (Medical, Dental, Mental Health, Vision)			
Yes	No	Phone	Yes	No	Other (please write):
	I choose not to answer this question				

15. Has lack of transportation kept you from medical appointments, meetings, work, or from getting things needed for daily living? Check all that apply.

	Yes, it has kept me from medical appointments or
	Yes, it has kept me from non-medical meetings, appointments, work, or from getting things that I need
	No
	I choose not to answer this question

Social and Emotional Health

16. How often do you see or talk to people that you care about and feel close to? (For example: talking to friends on the phone, visiting friends or family, going to church or club meetings)

	Less than once a week		1 or 2 times a week
	3 to 5 times a week		6 or more times a week
	I choose not to answer this question		

17. Stress is when someone feels tense, nervous, anxious, or can't sleep at night because their mind is troubled. How stressed are you?

	Not at all		A little bit
	Somewhat		Quite a bit
	Very much		I choose not to answer this question

Optional Additional Questions

18. In the past year, have you spent more than 2 nights in a row in a jail, prison, detention center, or juvenile correctional facility?

	Yes		No		I choose not to answer this

19. Are you a refugee?

	Yes		No		I choose not to answer this

20. Do you feel physically and emotionally safe where you currently live?

	Yes		No		Unsure
	I choose not to answer this question				

21. In the past year, have you been afraid of your partner or ex-partner?

	Yes		No		Unsure
	I have not had a partner in the past year				
	I choose not to answer this question				

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PRAPARE
Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences

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Paper Version of PRAPARE® for Implementation as of September 2, 2016

Personal Characteristics

1. Are you Hispanic or Latino?

	Yes		No		I choose not to answer this question

2. Which race(s) are you? Check all that apply

	Asian		Native Hawaiian
	Pacific Islander		Black/African American
	White		American Indian/Alaskan Native
	Other (please write):		
	I choose not to answer this question		

3. At any point in the past 2 years, has season or migrant farm work been your or your family's main source of income?

	Yes		No		I choose not to answer this question

4. Have you been discharged from the armed forces of the United States?

	Yes		No		I choose not to answer this question

5. What language are you most comfortable speaking?

Family & Home

6. How many family members, including yourself, do you currently live with? _____

	I choose not to answer this question

7. What is your housing situation today?

	I have housing
	I do not have housing (staying with others, in a hotel, in a shelter, living outside on the street, on a beach, in a car, or in a park)
	I choose not to answer this question

8. Are you worried about losing your housing?

	Yes		No		I choose not to answer this question

9. What address do you live at?
Street:_____
City, State, Zip code: _____

Money & Resources

10. What is the highest level of school that you have finished?

	Less than high school degree		High school diploma or GED
	More than high school		I choose not to answer this question

11. What is your current work situation?

	Unemployed		Part-time or temporary work		Full-time work
	Otherwise unemployed but not seeking work (ex: student, retired, disabled, unpaid primary care giver) Please write:				
	I choose not to answer this question				

12. What is your main insurance?

	None/uninsured		Medicaid
	CHIP Medicaid		Medicare
	Other public insurance (not CHIP)		Other Public Insurance (CHIP)
	Private Insurance		

13. During the past year, what was the total combined income for you and the family members you live with? This information will help us determine if you are eligible for any benefits.

_____

	I choose not to answer this question

APPENDIX B – IRB Approval Letter

Office *of* Research Integrity

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

118 COLLEGE DRIVE #5116 • HATTIESBURG, MS | 601.266.6756 | WWW.USM.EDU/ORI

NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

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

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI using the Incident form available in InfoEd.
- The period of approval is twelve months. If a project will exceed twelve months, a request should be submitted to ORI using the Renewal form available in InfoEd prior to the expiration date.

PROTOCOL NUMBER:	23-0582
PROJECT TITLE:	Assessing Social Determinants of Health in Primary Care
SCHOOL/PROGRAM	School of Leadership & Advance Nursing Practice
RESEARCHERS:	PI: Vicki Carpenter Investigators: Carpenter, Vicki~Coleman, Carolyn~
IRB COMMITTEE ACTION:	Approved
CATEGORY:	Expedited Category
PERIOD OF APPROVAL:	26-Jul-2023 to 25-Jul-2024

Donald Sacco Jr.

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

APPENDIX C – Social Determinants of Health Screening & Diagnosing Disparity

Protocol # 23-0582

Social Determinants of Health Screening

&

Diagnosing Disparity

"Many times, our patients come to us with needs beyond just medical, for example, housing, food, utility assistance, and transportation. As part of your visit today we'd like to help with other resources to help you and your family maintain your health. While we don't help with those directly, we do have partners in the community who can help and we would like to link you with them. Would you mind if I ask you a few questions to see if there are resources I can share?"

"Some of the questions asked are personal, but please know we will keep them confidential and use them to provide you with any resources we can. If at any time you feel uncomfortable you can also opt out of a question."

Attached is a flyer outlining all elements of social determinants of health and support this organization and this particular study will assist the needs of our community.

Disclaimer: This message has been approved by the Institutional Review Board at the University of Southern MS.

APPENDIX D – Diagnosing Disparity Flyer

ORI | Office of Research Integrity

INSTITUTIONAL REVIEW BOARD
STANDARD (SIGNED) INFORMED CONSENT

STANDARD (SIGNED) INFORMED CONSENT PROCEDURES
• ***Use of this template is optional.*** However, by federal regulations (45 CFR 46.116), all consent documentation must address each of the required elements listed below (purpose, procedures, duration, benefits, risks, alternative procedures, confidentiality, whom to contact in case of injury, and a statement that participation is voluntary). • Signed copies of the consent form should be provided to all participants. Last Edited May 18th, 2022

Today's date: 7-17-23		
PROJECT INFORMATION		
Project Title: Assessing Social Determinants of Health in Primary Care		
Protocol Number: 23-0582		
Principal Investigator: Vicki R. Carpenter	Phone: 601-447-7193	Email: vicki.carpenter@usm.edu
College: Nursing and Health Professionals	School and Program: University of Southern MS DNP Program	
RESEARCH DESCRIPTION		
1. **Purpose**: The purpose of this research project is to use the Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE) screening questionnaire to identify social determinants of health that may affect your health and access to community resources. By understanding these factors, we can develop strategies to better address your needs and improve patient health outcomes. 2. **Description of Study:**		

Approximately 100 participants aged 55 years of age and older who understand and speak English will be given an informed consent form and a screening questionnaire to complete over a 4-week period. Questionnaire completion times will vary from 5-8 minutes and will be reviewed upon completion with the primary care provider for any unmet needs that require a community resource referral to address those unmet needs.

3. **Benefits:**
Your involvement in this study will contribute to a better understanding of the social factors that influence health outcomes and will assist providers in accessing community resources to address the unmet needs of our community. The findings will also assist healthcare providers to develop strategies to address social determinants of health and improve the quality of care for patients in similar circumstances.

4. **Risks:**
There are minimal risks associated with participating in this study. The PRAPARE questionnaire will include sensitive questions such as demographics, family/home status, money/resources, and your social and emotional health, which could cause some emotion and psychological discomfort. Your responses will be kept confidential, and all data will be de-identified to ensure your privacy. If you experience any discomfort and would like to speak with someone, please call the 24-hour Warm Hotline at 601-713-4357 to assist you with your emotional and psychological needs.

5. **Confidentiality:**
All information collected during this study will be treated with strict confidentiality. Your identity will be protected, and all data will be de-identified and securely stored. Only the principal investigator and authorized personnel will have access to the data. Any publications or reports resulting from this study will not disclose any identifying information.

6. **Alternative Procedures:**
Participation in this study is entirely voluntary. You have the right to refuse to participate or withdraw from the study at any time, and your decision will not affect the quality of care you receive from your healthcare providers.

Approximately 100 participants aged 55 years of age and older who understand and speak English will be given an informed consent form and a screening questionnaire to complete over a 4-week period. Questionnaire completion times will vary from 5-8 minutes and will be reviewed upon completion with the primary care provider for any unmet needs that require a community resource referral to address those unmet needs.

3. **Benefits:**
Your involvement in this study will contribute to a better understanding of the social factors that influence health outcomes and will assist providers in accessing community resources to address the unmet needs of our community. The findings will also assist healthcare providers to develop strategies to address social determinants of health and improve the quality of care for patients in similar circumstances.

4. **Risks:**
There are minimal risks associated with participating in this study. The PRAPARE questionnaire will include sensitive questions such as demographics, family/home status, money/resources, and your social and emotional health, which could cause some emotion and psychological discomfort. Your responses will be kept confidential, and all data will be de-identified to ensure your privacy. If you experience any discomfort and would like to speak with someone, please call the 24-hour Warm Hotline at 601-713-4357 to assist you with your emotional and psychological needs.

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All information collected during this study will be treated with strict confidentiality. Your identity will be protected, and all data will be de-identified and securely stored. Only the principal investigator and authorized personnel will have access to the data. Any publications or reports resulting from this study will not disclose any identifying information.

6. **Alternative Procedures:**
Participation in this study is entirely voluntary. You have the right to refuse to participate or withdraw from the study at any time, and your decision will not affect the quality of care you receive from your healthcare providers.

APPENDIX F – Letter of Support

Protocol# 23-0582

SOUTHEAST MISSISSIPPI
RURAL HEALTH INITIATIVE, INC.
[redacted]

June 12, 2023

RE: Letter of Support for Vicki R. Carpenter, BSN, RN
Attn: Southeast MS Rural Health-DNP BSN-DNP Student

To: Nursing Research Council Chair and Committee

This letter is in reference for Vicki R. Carpenter, BSN, RN who is applying to Southeast MS Rural Health Initiative, Inc. (SeMRHI) for application and approval of her Doctoral Project.
The focus and title of her evidenced-based project is Assessing Social Determinants of Health in the Clinical Setting by implementing the PRAPARE screening tool. The site is located in the community. We have discussed this topic with Vicki Carpenter and support the need for the implementation of Social Determinants of Health Screening Tool. I understand that this project of Assessing Social Determinants of Health in Clinical Practice would be done for 30-45 days (about 1 and a half months).

After data analysis, I understand that Vicki will present her findings to the ID team.
I understand that following approval by SeMRHI, she will seek approval from the to The University of Southern Mississippi Institutional Review Board (IRB) for final approval of her Doctoral Project proposal. At present, I understand that Vicki R. Carpenter is a full-time BSN-DNP (Family Nurse Practitioner) student in the Doctor of Nursing Practice Program at the University of Southern Mississippi, Hattiesburg campus.

I am the CEO of SeMRHI. I am offering this letter of support to the doctoral student, Vicki R. Carpenter, in her doctoral project as titled above and look forward to hearing her findings. I understand that participation by the ID team members is completely anonymous and voluntary. There is no compensation for their participation. I understand the planned dates will be 30 days from receipt of USM IRB approval. I understand this letter of support will be included in the University of Southern Mississippi Institutional Review Board (IRB) application.

Her Chair contact information is Dr. Carolyn Coleman FNP-BC, PMHNP-BC, Carolyn.Coleman@usm.edu and office number is 601-266-5869.

As CEO of SeMRHI, I would like fully support Vicki to achieve her academic endeavor in this clinical practice project. I look forward to hearing the results of this study and the implications for clinical practice.

If there is any other information you should need, please do not hesitate to contact me.

Sincerely,

[redacted]

Southeast Mississippi Rural Health Initiative, Inc.

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