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A Formal Wound Care Plan for Homelessness Populations

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Doctor of Nursing Practice

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by

Sophia C. Johnson

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Dedication

To my family, particularly my husband, who loves and encourages me to persevere. To my children, who had patience and forewent many family activities as a result of my school enrollment. And finally, to my parents, who invested in my future because they recognized my potential.

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To Abilene Christian University, I applaud your dedication to student achievement and the Christian framework by which it is influenced.

Abstract

The purpose of this project was to develop a formal care management program for homeless patients during transition into the rehabilitation setting. This DNP scholarly project worked with one specific rehabilitation center, which is most open to the care of homeless individuals needing wound care, on the creation of a postdischarge service. An interprofessional team worked together to create a plan for the creation, implementation, and evaluation of this innovative service based on the protocols derived from the CDC to facilitate a framework and practice for those suffering from open, chronic, and worsening wounds in an effort to prevent further complications. To execute this, the modified Delphi method was utilized. The data collection consisted of three sets of survey questions that were grouped and categorized into themes. These themes detailed the focus areas for the formal wound care plan that included knowledge-level, skill-level, timeframe, and patient care. Collectively these themes gave validity to ensuring the health and wellbeing of this vulnerable population. Coordinating continuum of care for reentry into the community was essential. As such, this program includes partnerships with special shelters to provide wound care and supplies as well as collaboration with a local food bank offering a meal and voucher exchange for recently discharged patients. Therefore, the desired outcome is a program plan that can be adopted into a grant application for funding.

Keywords: homeless, post-discharge, rehabilitation, wounds, project design, grant

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Chapter 1: Introduction

Drawing from the Stewart B. McKinney Homeless Assistance Act of 1987, homelessness is defined as the absence of a permanent and continuous overnight dwelling, or rather nightly accommodations that are monitored, shared, or temporary (Institute of Medicine, Committee on Health Care for Homeless People, 1988). While studies have shown that families are a rapidly expanding category of persons experiencing homelessness, individual men and women are commonly observed, with men far exceeding the percentages (National Academies Press [NAP], 1988). According to the National Alliance to End Homelessness (NAEH), however, politicians are often concerned about adolescents as a result of their developmental needs and the possible lifelong consequences of destitution early in life (NAEH, 2023).

Causes of homelessness highlight the prevalence of one encountering short- or long-term homelessness caused by such factors as family violence, unemployment, substance abuse, or a lack of competitive housing. With unstable housing, those living rough are prone to a wide spectrum of acute and chronic diseases to include both physical and mental. A portion of these illnesses may predate homelessness, and others may contribute to the cause of homelessness, and yet others may be exacerbated due to homelessness leading to an array of often untreated complications (NAP, 1988).

The NAP reported that homelessness in the United States began to take an upward swing during the early 1980s. This article points to budget cuts from both the U.S. Department of Housing and Development and Supplemental Security Income programs, along with stricter eligibility processes to qualify for Social Security benefits as the reasons for this trend (NAP, 2018). Consequently, these primary factors gave way to this new increase of homelessness during this time. During the same time period, the deinstitutionalization of persons experiencing

mental illness contributed to the formation of many homeless encampments and an array of drug addictions. The AIDS epidemic launched another unforeseeable set of circumstances into society forcing many to resort to homelessness for lack of medical, social, or community assistance. The NAEH (2023) lists 580,466 people that were experiencing homelessness in the United States as of 2022.

The NAEH (2023) provides a categorical breakdown of persons experiencing homelessness into subgroups. Those with mental illness and substance abuse encompassed between 26.2% and 34.7%. Homeless families in either shelters, transitional housing, or on the streets comprised 241,951 persons. Those youths identifying as LGBTQ were another 20%. Children in foster care ranged from 13.8% to 53% of the homeless population. Older adults sixty-two or older entailed 4.2% of those in shelters and 2.8% living in poverty. Approximately 75,609 veterans, both male and female combined, were homeless (NAEH, 2023).

The homeless population also has high rates of diabetes, liver, and cardiac diseases, which impair circulation and can impede skin integrity from wounds (Healing Hands, 2004). According to Hurlow and Bowler (2022), wounds are an indication of an inflammatory response of foreign substances invading the protective skin barrier. The complexities of wounds present with varied causes whether acute or chronic. And while antibiotic therapy can be an appropriate remedy for chronic wounds, often antibiotics are used inappropriately, disproportionately, and haphazardly under these circumstances (Hurlow & Bowler, 2022). The authors characterize wounds as having any combination of classic signs typically involving inflammation, swelling, redness, pain, and are warm to the touch. However, understanding that all wounds are not the same, identification of the wound's microbial origins provides for greater success in such organism--specific therapies (Hurlow & Bowler, 2022).

In the publication of the HCH Clinicians Network, the authors suggested that wound development and wound prevention stem from the same root causes—social determinants (Healing Hands, 2004). People experiencing homelessness are often facing complex factors. These include the lack of money, food, housing, weather conditions, sanitation, and the inability to get and maintain medications required for healing. Other issues include smoking, drug use, mental illness, and lack of support—family or otherwise (Healing Hands, 2004).

Without appropriate access to basic hygiene for instance, changing a dressing to ensure the wound stays clean and dry is next to impossible (Healing Hands, 2004). Often an increased incidence of disease from the lack of primary and preventative care can be the result of homelessness. While illnesses such as hypertension, and diabetes are typically manageable with frequent maintenance, persons experiencing homelessness are deficient in such access; the byproduct is poor control and worsening conditions. A 2016 survey of people sleeping outdoors found that 71% had visited the emergency room (ER) within the past six months, with some having appeared on several instances. Similarly in another study, data collected from the United Kingdom, United States, and Canada showed a rise in frequency of visits to the ER due to the lack of access and healthcare services apart from a hospital ER. Comparatively, the rise in such occurrences proves by way of increased cost that there is an association between homelessness and the hospital healthcare system. (Stafford & Wood, 2017).

Statement of the Problem

Patients experiencing homelessness presenting to the hospital ER with open wounds, ulcers, or dehiscence from surgical procedures attributed to diabetes or previous lower-limb amputations are considered complicated cases for discharge planning. This is an issue of importance to healthcare professionals and nursing because nurses are often responsible for

initiating hospital discharge. Additionally, nurses must collaborate with interdisciplinary teams and arrange treatment and follow-up appointments after patients leave the hospital. Despite these efforts, the reality is that in most cases, homeless patients lack the resources required to make full recovery, which results in a revolving door of readmissions and is often attributed to faulty discharge coordination. Social determinants of health as well as the inaccessibility to public assistance may play a role in prolonging hospital stays and the absence in the continuity of care may be attributed to poor discharge planning (Lockwood & Mabire, 2022).

This large urban medical center has a high rate of homeless adults seeking care in the emergency room for wounds, often necessitating costly hospital stays and difficulty discharging to rehabilitation centers for the weeks of recovery in a safe and clean environment. Homeless patients return to less than desirable environmental circumstances and often end up as costly readmissions to the hospital. There are few facilities that have the capacity for indigent patients and even fewer for the homeless that often have complicated medical, social, and mental health issues.

One local rehabilitation center available for wound care admissions is seldom prepared to accommodate patients with complex wound care needs. Discharge coordination from the large urban hospital to this facility proves less than desirable and leaves much room for improvement. Additionally, although not an exhaustive list, other drawbacks reduce this center's potential for success: (a) administration wavers in enforcing the standards and protocols for the doctors, nursing staff, and patients, (b) technology is obsolete and paper charting leads to disorganization and medical errors, (c) supplies are disproportionate relative to wound type and often ineffective, and (d) patient and staff education is lacking as a result of perception and accountability. The Center for Management and Organization Effectiveness recognizes these issues as commonplace

in industries (Stowell, n.d.). Stowell (n.d.) suggested that the five most frequently observed problems are a deficit in direction, cohesiveness, competencies, communication, and awareness.

Background

Formalizing wound care positions the organization to move towards standardization as a whole, allowing them to better service the community and actually compete in the marketplace. According to an article in the AMA *Journal of Ethics*, authors Delaplain and Joe (2018), examine the benefits of burn and wound care training as a means of reducing associated problems and costs. They suggest that the absence of even the most rudimentary knowledge among medical graduands can produce lasting repercussions. As a remedy, they emphasize that the application of a structured wound care curriculum would correct inefficiencies of reoccurring wounds in the United States (Delaplain & Joe, 2018).

Patient non-adherence is another internal factor impacting the continuity of wound care. Rudolph (2022) attributed non-compliance to wound care as one reason there are increased costs in the nation's economy. The author discovered that non-adherence contributes to $100 billion to $300 billion in medical costs each year (Rudolph, 2022). Homeless patients at rehab centers in general may be preoccupied with losing their belongings left on the outside, satisfying their drug or alcohol addiction, or feeling that treatment is pointless if they do not have the means to maintain it (Stafford & Wood, 2017). Stafford and Wood (2017) emphasized the weightiness of homelessness and its impact on an individual's health. The authors pointed out that "remedying" medical issues without recognizing social determinants can be futile. While a desire to be made whole may be overt, social influences may impede progress.

External Factors

Attention to hospital discharge planning and patient safety is also warranted. Optimal timing, communication, and alignment of services are major components required to orchestrate an effective transition of care. However, without a succession of these events, delayed discharges commence resulting in suspended or even canceled admissions at the rehab site. Furthermore, disruptions as such causes extended hospital stays and increased hospital risks to patients. This translates into admitting potentially avoidable yet compounding and complex cases within the rehab setting. For these reasons, expenses are absorbed by both the rehab center and the hospital (Waring et al., 2014).

Patient Factors

Homeless patients at the local rehabilitation center where I conducted this study tended to express hesitancy in vocalizing their concerns for fear of stigma. However, when a one-on-one inquiry was initiated regarding interactions concerning their overall healthcare experiences, their perspectives became known. This included ambiguity between them and the healthcare provider, awareness of their health condition minus a sense of urgency, situationally guided priorities, and past experiences governing access to care. Similar reports from previously published research by Rae and Rees (2015) corroborate these same sentiments. In fact, studies have shown that being alienated from the public, because of homelessness, only perpetuates despondence (Rae & Rees, 2015).

A study using Walker and Avant's approach was conducted by Al-Gharibi et al. (2018), who sought to evaluate the cost-effectiveness of wound care. It was determined that cost-effectiveness, which is innately connected to costs, is only achieved when two components are met—time and money. Subsequently, their research indeed found that proper wound care

supplies resulted in smaller-sized wounds and expedited healing intervals (Al-Gharibi et al., 2018). Drawing from this conclusion, if the rehab center instituted training and this evidence-based approach, it may produce favorable results in the short run.

Quadruple Aim

Instituting the initiatives of the Quadruple Aim may offer the advantages the rehabilitation center aspires to. According to an article in PubMed, the objectives of the Quadruple Aim seek to reduce costs, improve population health, patient experiences, team well-being and productivity (Arnetz et al., 2020). A literature review discussing a pilot study to assess productivity utilizing the aforementioned objectives found that of the 46 team and 156 patient surveys collected, the measures outlined in the Quadruple Aim proved effective (Arnetz et al., 2020). Therefore, the Quadruple Aim offers the caveat to addressing and resolving the contemporary factors impacting care delivery in continuity of care at this local rehab.

Purpose of the Study

The gap in nursing practice is the lack of a formal care-management program for wound care patients during transition into rehabilitation. The purpose of this DNP scholarly project was to lead an interprofessional team at a rehabilitation center to create an innovative postdischarge program for the homeless needing wound care. The practice-focused question was the following: Will an interprofessional team reach consensus to create a plan for the innovative service? The desired outcome is a program outline that can be adopted into a grant application for the funding of a formalized wound care program. The facility's leadership has agreed to participate in the creation of a program as part of their continuous quality improvement strategy.

Significance

The development of a wound care program has many benefits. Its premise offers a set of best practices that seek to standardize the discharge process, standardize formal training for the care team and the patient, and standardize policies, protocols, and documentation procedures. Additionally, it has the objective of standardizing the use, availability, and access of proper wound care supplies and an interdisciplinary team of medical professionals to address comorbidities. As a result, this wound care program seeks to reduce hospital readmissions, which in turn reduces overall hospital and rehabilitation costs. Without such constructs, the World Health Organization (WHO) recognizes that care transitions threaten patient safety as they can increase the possibility of losing critical clinical information and require an increased degree of coordination (WHO, 2016).

Nature of the Project

I implemented the RAND Corporation's modified Delphi approach for this research. In short, it is a method designed to elicit panel communication, challenging in nature, through a series of questionnaires, called *rounds*. The rounds are focused at narrowing down the projected best plan of action in a given situation until a consensus is reached (Nasa et al., 2021).

Discussions commenced with a voluntary interdisciplinary team consisting of administrators, physicians, nurses, social workers, and mental health professionals that met to initially discuss the components of a transition of care management program for complex wounds that may be needed for people experiencing homelessness. I then created a draft of the plan for the team to review (Nasa et al., 2021). This draft was based on preliminary research data derived from previously conducted studies related to the need for uniformity in wound care. I, the moderator, performed an analysis. As such I collected anonymous feedback of each panel

member from each round. I then compiled, formulated, and analyzed the data into a meaningful outcome, and redistributed it among panel members using Google Docs. The goal was to determine whether the panel was nearing consensus with each round (Nasa et al., 2021).

The instruments I used were Google Docs the Appraisal of Guidelines for Research and Evaluation tool (AGREE II). This tool is used to evaluate the dexterity and disclosure of best practice guidance. The Google Docs data was accessible to members by way of invitation only. I managed the data updates from the opinions and comments stored within the Docs until consensus had been reached. At which time, I asked others who were not involved with the development process to review and comment using the AGREE II instrument. The final step in this project concluded with the preparations of a final document to be provided to leadership for their future use in seeking grant funding and for implementation (Brouwers et al., 2010).

Definition of Key Terms

Homelessness. This is defined as the absence of a permanent and continuous overnight dwelling, or rather nightly accommodations that are monitored, shared, or temporary (Institute of Medicine, Committee on Health Care for Homeless People, 1988).

Rehabilitation. This is the action of restoring someone to health or normal life through training and therapy after imprisonment, addiction, or illness (WHO, 2018).

Scope and Limitations

This project sought to identify the contributing factors to wound care involving the homeless population and the need to establish a formalized treatment plan on an outpatient basis developed at the rehabilitation level coordinated via in-patient hospital discharge. Therefore, inclusions are specific to wound care only. A team of licensed professionals provided leadership. The program included suggestions for training licensed and ancillary teams on wound care to

include frequency of care and proper documentation. A wound care outline including procedures and protocols was developed.

Summary

The impact of homelessness can be seen around the world. Unstable housing is a major contributor to diseases, both physical and mental, and are often exacerbated due to homelessness leading to an array of often untreated complications (NAP, 1988). Countless observations of homeless people presenting to the ER with complex wounds make organizing a plan for the continuum of care next to impossible. This is the result of the lack of resources for homeless people and the lack of training for nurses (Lockwood & Mabire, 2020).

A formal care plan for patients requiring wound care and a transition into rehabilitation is missing within the scope of nursing practice. In this project I sought to recruit an expert interprofessional team to create an outline for an innovative postdischarge wound care program for persons experiencing homelessness. This problem requires an innovative approach to address the continuum of care for homeless populations that present with the need for complex wound care. Chapter 2 focuses on a review of the literature to address the gaps in nursing practice with regard to this dilemma.

Chapter 2: Literature Review

The gap in clinical nursing practice is the lack of a formal wound care program addressing the specific vulnerable population—the homeless. In this DNP project I sought to integrate best practices in wound care from several agencies, such as the Centers for Disease Control and Prevention (CDC), the Agency for Healthcare Research and Quality (AHRQ), and the World Health Organization (WHO) as established authorities in the field of healthcare. This DNP project contributes to the body of literature pertaining to wound care among homeless populations as my objective was to improve continuity of care from hospital to rehab through the development of a formal wound care plan developed by a multidisciplinary team. The aim was to establish trust with homeless people, eliminate barriers to care, reduce rehabilitation and hospital costs, and provide a model for replication at other health facilities.

Conceptual Framework

Interpersonal Relations

Hildegard E. Peplau, a nurse, theorist, and educator, shaped much of the framework for the institution of nursing. Peplau postulated that true nursing care was a byproduct of a partnership between the nurse and the patient that she called *interpersonal relations*. It encompassed a culmination of four nurse-patient phases to achieve a pathway of wellness for the patient, their family, and the community (Snowden et al., 2014)

The orientation phase, as Peplau described it, starts when the nurse meets the patient, and the two are strangers. After defining the problem, the type of service(s) needed by the patient are identified. The patient seeks assistance, tells the nurse what he or she needs, and asks questions. As a result, with a nonjudgmental response, the nurse clarifies the patients' needs upon completing her assessment of their health and situation (Nursing Theory, 2023).

Peplau then discussed the identification phase that includes exploring the patients' needs in detail the patient shares preconceptions and expectations based on past experiences. Here, the nurse gains the patients trust while simultaneously selecting the appropriate course of action. In this phase, the patient begins to feel as if he or she belongs and feels capable of dealing with the problem, which decreases their feelings of helplessness and hopelessness. The identification phase is the development of a nursing care plan based on the patient's situation and goals (Nursing Theory, 2023).

The exploitation phase uses professional assistance for problem-solving alternatives. The advantages of the professional services used are based on the needs and interests of the patients. In the exploitation phase, the patient feels like an integral part of the helping environment and may make minor requests or use attention-getting techniques. When communicating with the patient, the nurse should use interview techniques to explore, understand, and adequately deal with the underlying problem. The nurse must also be aware of the various phases of communication since the patient's independence is likely to fluctuate. The nurse should help the patient exploit all avenues of help as progress is made toward the final phase. This phase is the implementation of the nursing plan, taking actions toward meeting the goals set in the identification phase (Nursing Theory, 2023). The final phase is the resolution phase. It is the termination of the nurse-patient partnership because the patient's needs were met through the collaboration of patient and nurse. They must sever their relationship and dissolve any ties between them. This can be difficult for both if psychological dependence still exists. The patient drifts away from the nurse and breaks the bond between them. A healthier emotional balance is achieved, and both become mature individuals. This is the evaluation of the nursing process. The

nurse and patient evaluate the situation based on the goals set and whether or not they were met (Nursing Theory, 2023).

Transitions of Care

According to Duffy (2016), professional practice models (PPM) drive nursing in an organization in that it highlights both a nurse's value while simultaneously benefiting the patient and families. This allows the nurse to prioritize, set goals, and improve their practice. It consists of five parts: mission, nursing roles and responsibilities, practice care delivery, leadership, and rewards system. Duffy (2016) notes that practice care delivery systems (PCDS) discuss the nurse's area of expertise, continuity and transitions in care, accountability for clinical decision making, and outcomes. Practice delivery encompasses the specific details in the care plan to address the patient's needs, what additional personnel will be required, their duties, and the method used to document the patient's care.

Drawing from the perspective of the PPM and PCDS, the transitions of care framework is a set of five standards used within the healthcare setting to promote successful outcomes for those requiring a continuum of care (Transitions of Care Standards, n.d.). The objective of Standard 1.0 involves identifying patients at risk for poor transitions. Here, a health assessment along with screening for medical, behavioral, and social determinants of health is obtained. Standard 2.0 includes a comprehensive assessment for persons at high risk for poor transitions. This includes a review of choosing utilization, identifying goals of the patient and family, documenting engagement of parties, and assessing patient ability to self-manage. The last step in Standard 2.0 is a review of social determinants, medication reconciliation, and the care plan. In Standard 3.0 the actual medication reconciliation is performed to determine patients at risk for adverse events and non-adherence. This can be done via electronic health records, claims data,

paper records, pharmacy, and the ambulatory care provider. Standard 4.0 is the formation of the care plan and the tracking of methodology that will be utilized as the guide throughout the continuum of care. Standard 5.0 allows for the communication and dissemination of pertinent information, including clinical and social determinants to the stakeholders. Stakeholders may be identified as the patient and caregiver(s), provider, pharmacist, care manager, payer, and community service agencies (Transitions of Care Standards, n.d.).

Literature Review

I conducted a literature search to substantiate the need for a formal care management program posthospital-discharge of homeless patients requiring wound care. Using the ACU online Brown Library, scholarly and peer- reviewed articles were retrieved from databases including Medline, EMBASE, and PubMed. The search included the following key words: *homeless*, *post-discharge*, *rehabilitation, nurse*, *transitional care*, *education, wounds, project design,* and *grant*. Exclusions included bodies of work with a primary focus on comorbidities and/or drug addiction. The search included publications within the last 15 years, full-text, and were English-only.

Transitions of Care

According to the *Online Journal of Issues in Nursing*, the transitional care model (TCM) consists of a master's-prepared advanced practice nurse, (APN), who leads a team-based model of care. This model has proven successful with transitions of care among vulnerable, chronically ill, older adults (Hirschman, et al. 2015). The authors suggest that it emphasizes patient engagement, which includes ascertaining a patient's health goal(s), establishing a specific care plan, as well as facilitation of the continuity of care from one setting to another until recovery. This entails a predischarge assessment by the APN and collaboration with the team to create a

transitional care plan. Additionally, postdischarge, the APN visits the patient at home, communicates with them via phone, and attends follow-up appointments. As a result, this involvement assists in swift resolution of potentially worsening conditions (Hirschman et al., 2015).

The Coleman care transitions intervention model has been proven to reduce hospital readmissions (Carr, 2019). Its intent is medication self-management, frequent review of medical records, follow-up with the primary care provider, and attentiveness to patient health status. Dubbed as the four-pillars, this program provides a "coaching" approach instituted in the hospital that continues on into the patient's home. It is designed as a four-week program focused on promoting a seamless transition from hospital to home. Here, the coach crafts a list of inquiries for the patient to address with their doctor, initiates a dialogue concerning the need of supportive services, and proactively assists the patient with scheduling follow-up appointments (Carr, 2019).

Carr (2019) recognized that care transitions are a vital aspect of healthcare delivery. She suggests that executing delivery at the right time and in the right setting has the ability to safely ease the shift across the care continuum with the premise of establishing best practices. She notes, too, that fostering interdisciplinary collaboration, communication, and care coordination are among the most critical components of the outcome. Furthermore, she credits the successful implementation of care transitions as strengthening care delivery and, patient outcomes. She advocates that appropriately orchestrated care delivery systems positions organizations toward acquiring the triple aim: improved health, improved care, and improved cost reduction. As a result, this may translate into favorably correcting postdischarge problems and mitigating excessive readmissions (Carr, 2019). Moreover, Carr (2019) posited that collaboration,

communication, and coordination are continual threads throughout the interdisciplinary process giving way to a team approach during hospitalization that supports the postdischarge time frame. Carr (2019) identified the nurse as the most significant of team members by whom well-constructed transitional care programs are modeled for best practices.

TIME Framework

Dowsett (2009) discussed the use of the TIME framework for wound care as a caveat to strengthening community nurses' knowledge and practice. TIME stands for tissue, infection, moisture, and epidermal edge, which explains the four components of wound bed preparation. As it were, wound bed preparation (WBP) provides a structured method to assessing and understanding the underlying molecular and cellular anomalies that prevent wounds from healing (Schultz et al., 2004). In this study the researchers instituted an experimental pretest-posttest design using questionnaires for data collection to evaluate whether the influence of a WBP educational program involving the TIME framework would be effective. Questions probed nurses' knowledge concerning the physiology of wound healing, WBP and TIME, as well as patient and wound assessment. Performed in a two-day timeframe, the study included a sample size of 47 community nurses ($n = 47$), although only 31 participants were required. The independent variable was the education intervention, and the dependent variables were the questionnaires, nonparticipant observation, and recording of information. They were peer reviewed by the International Advisory Board for reliability and validity. The nonparticipant observation and recording of information related to patient wound type assessment, identification of treatment, underlying cause, TIME related problems, and referrals. Statistical power analysis was implemented to detect an effect size. In all, a total of 79 patient visits were observed including 47 pre-interventions and 32 postinterventions, and it is notable that most required

treatment for leg ulcers. As a result, the study found after the education intervention there was an improvement in nurses practice ($t(32) = 7.12$, $p < .001$) and an improvement in knowledge ($z = 5.667$, $p < .001$). However, the study failed to discuss challenges it faced facilitating the experiment in the practice setting. Although this research study was successful, there remains a gap in knowledge and practice (Dowsett, 2009). Dowsett (2009) implies that patients continue to lack wound care support despite the resources available to healthcare professionals and recommends observation and benchmarking against best practices as resolution.

Leeds Framework

Williams (2022) examined the implementation and development of a new framework to improve wound care. Created by the Leeds Community Healthcare Trust, the Leeds wound infection framework seeks to standardize practice, reduce variation in treatment, improve the quality of care, and support the provider. According to Williams (2022), evidence from the Commissioning for Quality and Innovation (CQUIN) wound assessment found discrepancies in wound infection documentation leading to incidences in patient safety where the need for a new framework was identified. The framework was constructed from the International Wound Infection Institute (IWII) 2016 guidelines with two key areas: wound assessment and identifying signs and symptoms of infection. As a result, emphasis is given on cleaning, dressing, and escalation if required.

Additionally, Williams (2022) discussed the inauguration of a concurrent wound care training program. It was designed to certify that providers grasped an in-depth understanding of infections along with the use and management of the framework through face-to-face and online sessions. The pathway also implemented new practice measures: early detection and cost-efficiency. The use of camera phones adopted into real world situations gave rise to capturing

real time data. This enhancement in practice gave clinicians decision-making capability at earlier stages in the wound and infection process. Additionally, the cost of wound care supplies was reduced: Silver and antimicrobial spending was reduced by approximately 47% and 14%, respectively, as a result of concerted efforts towards standardization and reduced variation as outlined in the framework (Williams, 2022). Williams (2022) concluded by recognizing the need for ongoing adaptations to the framework as recommendations are updated within the IWII guidelines. These recommendations extend to areas of thorough cleaning, use of proper supplies, and continuous training with standardization as the key underpinning clinical practice.

Tissue Viability Framework

Ousey et al. (2016) discussed the absence of a benchmark to gauge clinicians' knowledge and skills in the realm of wound care, specifically tissue viability. As a result, tissue viability leading change (TVLC), a competency framework, was developed in the United Kingdom as a platform to empower healthcare professionals operating in this arena to lead change (Ousey et al., 2016). Ousey et al. (2016) explain that the primary focus of its development was to address the educational gaps as well as the roles and responsibilities of the nurses as recorded in a national survey that revealed substandard patient care due to faulty assessments, diagnoses, and treatments. The framework is unique in that it combines critical thinking skills and critical thinking as additional components among its ten core competencies, including generic, health improvement, prevention, wound care, ulcers, dermatology, pharmacology, research, safety, and teamwork. After self-assessment, a discussion with a practice assessor regarding knowledge and skills was conducted and an action plan was put into place (Ousey et al., 2016).

To evaluate clinicians' perceptions and experiences implementing the framework, a preliminary questionnaire using Survey Monkey was used to capture their feedback. Three

hundred and thirty-one TVLC downloads were noted, 61.8% responders stated they had downloaded it for personal or professional reasons, while 47% responders said they were interested in their own competencies. Yet another 52.9% intended to use it as a tool in team building and another 58.8% needed help determining their utilization of the framework. Meanwhile 20.6% required help from Urgo Medical and 32.4% needed no additional assistance. Finally, of the 15 clinicians who downloaded and used the TVLC framework, only a handful of responses were captured because clinicians were not able to fully implement it (Ousey et al., 2016).

In addition, Ousey et al., (2016) found that there was a miniscule number of responses to the effectiveness of the TVLC framework, however, out of this amount, clinicians reported that it was helpful in expanding their knowledge and skills with a fair amount of improvement. Team leaders also reported improvements in patient care after downloading and implementing the TVLC framework. Strengthening clinicians' competencies in both knowledge and skills in wound care was accomplished in this preliminary study as tissue viability can present many challenges in treating patients. Moreover, this framework establishes the benefits of a collaborative approach to healthcare.

Interdisciplinary Teams

According to the literature, a research investigation to discuss the creation, implementation, and feedback of a delivery model of interpersonal collaborative care was studied at the University of Alabama at Birmingham. The model focused on transitional care coordination of chronic disease management for underserved and vulnerable populations. While the study commenced within a clinic, a host of healthcare professionals with varied backgrounds integrated individual case management necessary for each patient. The model utilized a nurse-

led, team-based approach involving an interdisciplinary group of professionals. The four-part model included: evidence-based treatment guidelines, transitional care coordination, patient activation strategies, and behavioral health integration. The results were a success according to examiners, who reported high levels of satisfaction with physical and mental health care from patients and cost savings from the healthcare system (Shirley et al., 2021).

Cost-Effectiveness

Al-Gharibi et al. (2018) explained how complex wounds increase costs in the areas of wound care and visits, dressing changes, nursing care, and hospital stays. The authors further suggest that cost-effectiveness relates to the cost and frequency of dressing changes, duration of healing, the size of the wound, and the use of other treatments or medications. Moreover, they point out that wound dressing results in both direct and indirect healthcare costs, such as the salaries of the nurses, various hospital costs, time required for the nurses to care for the patients, home visits, and visits to the primary care provider for follow-up (Al-Gharibi et al., 2018). The authors consider cost-effectiveness using two characteristics: effectiveness and economy. This translates as evidenced in speedy wound healing and a decrease in total costs, including direct and indirect healthcare costs (Al-Gharibi et al., 2018).

A study was conducted comparing treatment costs related to healing rates and wound size (Brown et al., 2015, as cited in Al-Gharib et al., 2018). They found that single-use, negative pressure wound therapy reduced wound size by more than 20% per week and healing in two weeks rather than 3.2 weeks under other protocols. The article goes on to emphasize that while upfront costs were higher, the overall cost was reduced for staff expenses and shorter treatment (Al-Gharibi et al., 2018). Additionally, when considering wound care treatment, the most effective supplies may be the most expensive. However, with this, wounds are resolved in half

the time compared to using less expensive subpar supplies with subpar results. This translates into smaller wound size and faster healing, which translates into effective treatment (Al-Gharibi et al., 2018). This optimizes the implementation of patient safety measures and eliminates the worsening of health conditions.

Safe Implementation

A study published in the *Journal of Clinical Nursing* (2014) regarding best wound care practices of 120 acute care nurses on the medical-surgical floor found that in a 42-item descriptive cross-sectional survey based on extensive literature and wound care issues in major hospitals in Australia, 75% reported that wound appearance determined their choice of dressing product while 6% considered the cost of dressing more important. Of the participants, 59% reported being unaware of the national standards pertaining to wound management, and 41% reported that their knowledge of wound was *good* or *excellent*. Additionally, 75% of the nurses surveyed responded that their primary source of information about wounds was the hospital's wound care specialist. The study concluded that many acute care nurses do not use the recommended clinical guidelines pertaining to wound care. They identified that it is crucial to know barriers and facilitators to knowledge transfer (Gillespie et al., 2014).

Authors Samuriwo and Hannigan (2019) published a study using a systems thinking and boundary theory approach to identify improvements in the quality of wound care delivered to patients experiencing mental health issues. Their study determined that if advancements are to be achieved in wound care at the population level, then the wound care needs of people experiencing mental illness should be addressed as well. As it were, systems thinking and boundary theory provide a conceptual framework for ensuring quality for persons experiencing conditions related to mental health, according to the authors (Samuriwo & Hannigan, 2019).

Their research showed that integrated care plans were a benefit to the patient's wound recovery and even proved to transcend professional boundaries between wound care and mental health specialists. As a result, the study determined that health care policy and organizations should collaborate to improve the wound care outcomes for people with mental health issues

In another study employing a blended virtual and home-based patient navigation model to improve complex wound care outcomes, patients were paired with an interprofessional team that assisted them regarding their wound care. This collaboration resulted in a 66% reduction of wound surface area, a 73% reduction of pain, and a 79% accuracy of the proper application of appropriate infection control management. Moreover, according to the research, this blended model was recognized as benefiting patients and improving the utilization of the healthcare system (Arputhanathan et al., 2022).

A case study conducted by the University of Texas medical branch proved successful in reducing 30 days readmissions by 14.5% and circumvented $1.9 million in readmissions. According to the study, to do this, the university utilized real-time data analysis, closed internal gaps to include discharge planning, and improved patient education and patient follow-up, along with the strategic implementation of a multidisciplinary team (Thomas & Schoonover, 2019).

Moreover, *Future Healthcare Journal* published an article discussing how discharge follow-up could lower the cost of readmission. Using a cohort design, a cost analysis was conducted to evaluate what number of patients having received a follow-up call from a nurse were readmitted within 30 days of discharge. The study found that of those with follow-up, only 9.2% of patients were readmitted compared to 15.67% with no follow up. This study is evident that postdischarge interventions are beneficial. (Vernon et al., 2019).

Summary

Hildegard E. Peplau's theory on interpersonal relations provided a basis and framework for understanding the patient-nurse relationship. The TCM focuses on nurse's role in the continuum of patient care, specifically from hospital to rehabilitation. However, there remains a gap in nursing practice. The strength of the TIME framework was that it was able to discover that wound bed preparation provides a structured method to assess and understand the underlying molecular and cellular anomalies that stop wounds from healing. Yet the experiment to evaluate whether the influence of a WBP education program involving the TIME framework was weak and only partially realized—nurses' knowledge improved, but nurses' practice skills lacked refinement (Dowsett, 2009).

This literature review provides the background to substantiate the need for a formal care management program for persons experiencing homelessness with complex wounds that are transitioning from the acute care setting into rehabilitation and discharge. The literature provides the premise to justify the necessity of an interdisciplinary team at the care site, access to wound care supplies, and proper sanitation. Furthermore, the research has proven that even previously established best practices are only as good as the professionals that utilize them. As a result, the next chapter presents the project design and the requirements involved in creating an outline for this clinical practice initiative.

Chapter 3: Research Method

Developing a wound care program to foster continuity of care at the rehabilitation settings for homeless populations presenting with complex wounds calls for a restructuring of current nursing practice. The goal of this DNP scholarly project is to head an interprofessional team at a rehabilitation center to develop a forward-thinking postdischarge plan for persons experiencing homelessness requiring wound care. The practice-focused question is the following: Will an interprofessional team reach consensus to create a plan for the innovative service? This project will utilize a transitional care management approach. The desired outcome is a program plan that can be adopted into a grant for funding for the implementation of this program.

Project Design/ Methodological Appropriateness

In this DNP project I used a qualitative approach to the modified Delphi methodology. Developed by the Rand Corporation and established in the 1950s, it has been used most often in healthcare and nursing as a tool used for expert interdisciplinary collaboration in the scope of practice. The modified Delphi technique offers methods in reaching a consensus among teams by encouraging the exchange of information and ideas. Although challenging in some instances, consensus can be reached provided that all parties agree to uniformity in terms and meanings. Additionally, to reach consensus, consistency must be attained in determining criteria, implementation, and interventions (Niederberger et al., 2021).

Qualitative descriptive research designs are steeped in the occurrence and prevalence of phenomena, experiences, and perceptions. Particular emphasis is given to the nature of the problem and the specific circumstances of the participants and is therefore uniquely concerned with the human experience (Snowden et al., 2014). As such, the modified Delphi method is

pragmatic and is apparent in the qualitative Delphi method in that it is flexible, inexpensive, and has a basic fundamental structure that can be easily comprehended. This speaks explicitly to its usefulness in informing practice (Brady, 2015).

The modified Delphi method is appropriate for this research study for several reasons: (a) The participants have varying practice commitments that could present challenges in coordinating face-to-face meetings, (b) due to these commitments, the participants may require flexibility in sending and receiving deliverables, (c) the participants are all contracted with the local rehabilitation center and may potentially influence the responses of another participant if face-to-face, and (d) this method provides the greatest amount of insight in the shortest span of time. Furthermore, the qualitative Delphi method involves an enterprising sample, promising design, and offers anonymous and organized communication with an insular analysis of the dilemma (Brady, 2015).

Furthermore, guidance on conducting and reporting Delphi studies has been published in the Equator Network and offers eight areas of reference within the publication (Niederberger et al., 2021). According to the research of Niederberger et al. (2021), it is important to note that consensus within the Delphi method refers to the largest number of thought processes pointing in the same direction. This is acquired by integrating and balancing the perspectives of all members of the interdisciplinary team and use of the mental model. The mental model is the application of the three round surveys, including the objectives of each round. The authors suggest that these rounds achieve the highest quality results and thus are the preferred technique in the healthcare system (Niederberger et al., 2021).

Interprofessional Collaboration

Each panel expert has a role: physician, APN, registered nurse, registered dietician, mental health specialist, pharmacist, physical therapist, social worker, and case manager. The responsibility of each panelist is the same—to provide anonymous feedback about the given subject matter. To facilitate collaborative communication among the interdisciplinary team, the Google Group platform and Google Docs templates provide the ideal segue. Boxer (2016) explains that a group can have online discussions about specific topics, as well as organize meetings, conferences, or events among members of the group. Additionally, as part of Google Group, a collaborative inbox can be initiated to manage and track inquiries among the team by assigning member specific responsibilities. The Google Docs template features the capacity to allow team members to create, share, access, and edit the same document(s). This engagement with both the Google Group and Google Docs provides cohesiveness and shared governance.

Practice Setting

This DNP project was piloted at a local Southern California rehabilitation center, in close proximity to an urban hospital in a major urban city. This hospital coordinates patient transfers with this facility. The center houses residents for both long- and short-term stays during which clients are free to come and go at will. It is not considered a locked facility. The center has a new electronic health system, but management finds training a challenge amid the demands of their current workflow. The center is sufficiently staffed but most staff have no knowledge of wound care. Wound care is delegated solely to the treatment nurse, who provides care every other day. As a result, dressing changes are postponed until her return. This may become problematic if wounds need immediate redressing. The center offers ample space to accommodate treatment for

wound care: private offices, treatment rooms, a commissary, a physical therapy unit, and the like. For these reasons, this rehabilitation site was the ideal location to pilot this DNP project.

Target Population

Reaching consensus utilizing the qualitative Delphi method requires a focus on persons experiencing homelessness with complex wounds and who are transitioning from the acute care setting into rehabilitation. To arrive at consensus, careful selection of the sample size must be taken into consideration. According to Ogbeifun et al. (2016), the course by which participants are determined is closely related to purposive sampling rather than random sampling. In other words, I selected panelists bearing in mind the knowledge they possess as an expert participant. The sample could range from three to eighty with each panelist willing to commit to the full extent of the research: usually three rounds of questionnaires (Ogbeifun et al., 2016).

Instrument/Measurement Tools for Data Collection

The purpose of this qualitative approach to the modified Delphi study was to evaluate consensus among an interdisciplinary panel of experts in the creation of a formal wound care program. The desired outcome was a program outline that could be adopted into a grant application to fund this program. The facility's leadership agreed to participate in the creation of this program as part of their continuous quality improvement strategy. As a result, they allowed the collection of purposive sampling by providing email access to distribute an e-flyer (Appendix A) and an associated self-selecting survey (Appendix B), which was distributed via Survey Monkey to contracted clinicians that currently do rounds at the rehabilitation center.

The e-flyer described the aim of the research. Contracted clinicians were granted access to the self-selecting survey for three days. If submissions met the criteria, the participant completed an informed consent where they were able to create a unique identifier for future

correspondence and to protect anonymity. Upon receipt of the informed consent, participants were given access through invitation to the sharable Google Doc files where all research communications commenced, including an overview of expectations for contributions from the panelist, and a synopsis related to the center's need for a formal wound care plan (Appendix D).

Panelist were then provided instructions on the use of the qualitative Delphi method (Appendix E) and the specifics on the use of the 5-point Likert scale questionnaires (Appendix C) for data collection that I analyzed after each round for panel review. At the conclusion of the third round, participants were emailed a parting letter with instructions to remain anonymous until notification of the final analysis of the research study was complete. At which time panelists were granted permission to disclose participation in the study. Additionally, I expected that the data would reveal normal distribution; therefore, I used parametric analysis and qualitative analysis, specifically, Pearson's correlation and thematic analysis to determine if the inferential data and trends addressed the research question. Sullivan and Artino (2013) suggested that with a sufficient sample size of at least 5–10 participants, if normally distributed, parametric tests can be used with Likert-scale data.

Implementing the Qualitative Delphi Method

The first step in utilizing the Delphi method was to choose a facilitator. I was this person and responsible for the data collection and management of the research. The next step in using the Delphi method was to choose the panel of experts. In this DNP project, I emailed a self-selecting survey to potential panelists to determine their qualifications and ability to commit to the project. Next, I identified the problem. This DNP project has the following research question: Can an interdisciplinary team of experts work cohesively to develop an outline for a formal wound care plan for homeless persons needing wound care postdischarge?

I chose to utilize Google Docs, and I provided each panelist access to the questionnaires, comments, and feedback through its sharable platform. Next, round one of the modified Delphi method began. It consisted of eight questions distributed on a 5-point Likert scale questionnaire focused on determining the importance ranking for each question. Panelists were given one week to make selections and return responses via the sharable Google Doc.

After this week, I began to decipher the data, group the responses, and formulate a table to illustrate categories and identify themes among the participants. I then distributed the data to the panelists for modifications, comments, and suggestions. This was round one. After the span of two days, round two commenced. Similar to round one, round two consisted of eight questions distributed on a 5-point Likert scale questionnaire focused on determining the importance ranking for each question. Again, panelists were given one week to make selections and return responses via the sharable Google Doc. I once more began to decipher the data, group the responses, and formulate a histogram to determine trends among the participants. As before, I then distributed the data to the panelists for modifications, comments, and suggestions for round two.

Then, round three began. However, round three consisted of nine questions distributed on a 5-point Importance Likert scale questionnaire focused on determining the importance ranking for each question. Panelists were given one week to make selections and return responses via the sharable Google Doc. I once again began to decipher the data, group the responses, and formulate a histogram to determine trends among the participants. As before, I then distributed the data to the panelists for modifications, comments, and suggestions (Dolmy, 2022).

Alternate Implementation, AGREE II Instrument

I asked those who were not involved with the development process to review and comment using the AGREE II instrument. The AGREE II is a tool used to evaluate the dexterity and disclosure of best practice guidance. This tool consists of 23 items on a 7-point Agreement Likert scale, divided into six domains: scope and purpose, stakeholder involvement, rigor of development, clarity of presentation, applicability, and editorial independence. To implement this tool, it is recommended that appraisers read the clinical guideline or research in this case, and score the methodology used. While the goal is reaching consensus as in the Delphi method, the responsibility of the appraiser is not to identify limitations within the clinical guide but to select high quality guidelines to implement (AGREE II, 2017).

Analysis Plan

Analysis began after the completion of the third modified Delphi round. From the Likert scale questionnaires, I retrieved ordinal data: the responses of the participants. Ordinal data are the level of measures that represent a rank or order and is implied by their importance in a class. In this project, the importance Likert scale was used. This scale places a value or rank to each number in the selection where 5 = *very important*, 4 = *important*, 3 = *moderately important*, 2 = *slightly important*, and 1 = *unimportant*. Using an Excel spreadsheet to better understand the results, I typed in a header in the cell designated as row 1, column A titled Respondents. Below that cell, in row 2, column A, I created a formula to indicate the total number of respondents in the study as follows: N = (A2+1). In this study, there were 25 respondents. As a result, I copied the formula and highlighted the cells from row 2, column A until I reached row 26, at which point I stopped highlighting and the numbers 2–26 populated the cells.

Next, I typed a header in the cell designated as row one, column B titled Question 1. I repeated this for the following cell: row one, column C and so on until I reached row one, column H for a total of eight headers, representing eight questions. Next, I entered the numeric value for each question corresponding to each respondent. Because each respondent created a unique identifier at the start of the study, I was able to easily transcribe the results per panelist. Next, I discovered the frequency of each ranking for each question. To do this, I typed each Likert category out. For this spreadsheet, I decided to list the categories starting in row 30, column A for easy visualization.

Then using the COUNTIF formula, I entered a fixed range and criteria, i.e., ex: 5 = COUNTIF (B$2: B$26, 5). Placing the "$" in the formula allows the range to remain the same throughout each row for the categorical list. Additionally, I was interested in determining the percentages associated with the categorical list. As a result, I copied and pasted the list into new cells, rows 27–52, column A, and created another formula to get percentages: (B27/25) and then I clicked on the percent sign under on Home tab and the percentages populated. I then highlighted each of the remaining rows from 31–55, column A, stopping at row 52, and the remaining percentages populated as well.

The next step was to build a mean index for each row. To do this, I calculated the mean value for each row by creating a formula for the average: B2:H2. In this spreadsheet, I have chosen to start calculating my results in row 1, column J titled *Importance of Practice Skills* and correlating it to column K titled *Importance of Knowledge*. The range started with row 2, column B-H and the average importance for panelists populated. In order to visualize the average for the other panelists, I highlighted the remaining rows, stopping at row 26 and the remaining averages populated for the remaining participants. I could then move the decimal point by two places by

clicking on the radial button for decimal located under the Home tab. Finally, by highlighting the items for practice and knowledge as two sets of arrays, a correlation could be visualized. This analysis is called a Pearson correlation and was utilized in this DNP project to determine the relationship between practice skills and knowledge in wound care.

Thematic Analysis

Braun and Clarke (2006) define thematic analysis as a way of identifying, analyzing, and reporting themes in qualitative data. In other words, themes can be interpreted as patterns in the data collection results. Using this approach to analyze the qualitative data, I began to draw inferences beginning with round one of the modified Delphi method. This entailed labeling or coding the more frequent Likert rankings into groups. Doing this repeatedly after each round of data collection allowed themes to emerge more readily.

I followed the six-phase step-by-step process for thematic analysis as outlined by Braun and Clarke (2018). In phase 1, the authors point out that one must familiarize with the data. As it were, the authors call this process of repeated reading immersion. The next step was generating initial codes or labeling data into a list of ideas (Braun & Clarke, 2008). Next, are phases 3 and 4, where I began to search for and review themes. These two phases set out to validate the analysis. In phase 5, I defined and named themes. Here, I recognized the overarching theme present in the data and what has been uniquely identified. Finally, phase 6 is the step where I furnished the research results to the leadership of the rehabilitation center for review (Braun & Clarke, 2008).

Risk/Benefits/Protection of Human Rights

Moorley (2021) discusses the future of nursing and the opportunities healthcare professionals are given to address the underlining causes of health insufficiencies. While there

were no risks for panel participants, the benefit of improving care through the development of a formal wound care program was noted. The facilitation of the modified Delphi rounds gave latitude to a panel of experts to improve transitions of care and more specifically homeless needing wound care through the development of a formalized care program at the rehabilitation center.

According to the Center for Advanced Wound Care (CAWC; 2020), an acute wound heals faster and the management of such is uncomplicated if dressed immediately to avoid infection. Following suit with best practices, tackling a wound at the acute stage benefits the recipient and the care team (CAWC, 2020). While simple techniques are provided to promote wound healing, the interdisciplinary team can shift their focus to planning for patient reentry into society following rehabilitation. As a result, both acute and chronic wounds should be included in the plan program.

IRB Approval and Process

The voluntary panel of experts are the human subjects. While the rehabilitation center considered this an innovation in practice and did not require IRB approval, I received approval for the project from Abilene Christian University's IRB (Appendix F).

Feasibility

Cost was one aspect of feasibility in this DNP project. While there was no cost associated with using the Delphi technique or Google Docs, there was, however, cost associated with the time to achieve consensus. Merrick (2019) refers to this as the cost of alignment. He identifies two defining categories on the subject: How effective your group is at getting aligned, and the number of people you are required to align. In other words, the cost here was determined by the amount of time managing the work. This includes the time in creating graphs, presentations,

organizing feedback, addressing questions, compiling data, and of course time waiting for responses. Merrick (2019) suggests that cost-effectiveness is predicated on how well the objectives are defined, whether participants will be readily forthcoming, as well as the platform by which ideas are exchanged.

Site permission is another aspect of feasibility. The research study was piloted at a local Southern California rehabilitation center, in close proximity to an urban hospital within a major urban city's limits where there is established transfer coordination between the facilities. The rehab's leadership agreed to participate in the creation of this program as part of their continuous quality improvement strategy. The added benefit was that qualifying contracted clinicians who currently make rounds at the rehabilitation center were selected for the study.

Summary

Guided by the modified Delphi technique developed by the Rand Corporation, this clinical practice pilot project utilized this research method to foster interdisciplinary collaboration within the scope of the transitional care model to create a formal wound care plan to treat homeless persons. The premise was to generate ideas in an effort to identify and prioritize specific areas of concern, after which, the survey results in round 1 would be made sharable to expert panelists for review, assessment, comments, and recommendations. Round 2 granted additional explanations of responses, feedback to other's input, and the option to discuss further. The last step or survey in round 3 provided the opportunity to reassess previously submitted surveys and offer clarification to altered responses (Niederberger et al., 2021). Chapter 4 reports the results from applying the techniques of the modified Delphi method and the anticipated outcome of grant approval.

Chapter 4: Results

In this chapter I report and discuss the results of the study with a reiteration of the focus of the study. The gap in nursing practice is the lack of a formal care management program for wound care patients during transition into rehabilitation. The purpose of this DNP scholarly project was to lead an interprofessional team at a rehabilitation center to create an innovative postdischarge program for the homeless needing wound care. The practice-focused question was the following: Will an interprofessional team reach consensus to create a plan for the innovative service? The desired outcome was a program outline that could be adopted into a grant application to fund this program.

Data Collection

The research design, the modified Delphi method, was a process that gave too much flexibility in that modifications to previously submitted survey responses were allowed in an effort to reach consensus, the goal of the study. As it were, participants were distributed a set of eight 5-point Likert scale survey questions. Panelists were given two days to make selections and return responses via the sharable Google Doc. After submittal, I deciphered the data, grouped the responses, and formulated a table to illustrate categories to easily determine themes among the panelists. I discovered five themes: Knowledge, Skills, Time, Cost, and Patient Care (Table 1).

Table 1

Results for Interdisciplinary Consensus

Themes by category	Knowledge	Skill	Time	Cost	Patient care
Theoretical knowledge of wounds	X				
Practical knowledge of wound	X				
Skills in accurate identification of treatment		X			
Skills in accurate wound assessment		X			
Experience treating acute wounds		X			
Experience treating chronic wounds		X			
Knowledge of dressings for specific types of wounds	X				
Experience using various dressings for specific types of wounds		X			
Recognizing emergent wounds	X				
Understanding cost-effectiveness of wound care				X	
Understanding patient safety					X
Understanding the comorbidities compounding treatment					X
Recognizing timeframe as an essential component in treatment			X		
Interdisciplinary collaboration					X
Effective transitions and continuity of care					X
Benefit of self-management					X
Ongoing patient and clinical education and training	X	X			
Incorporating problem solving	X				
Reducing variations in treatment		X			
Standardizing care		X			
Accurate documentation				X	
Timely documentation				X	
Early-stage detection			X		
Benchmarking by industry guidance				X	

Data Analysis

Following the 6-phase, step-by-step process for thematic analysis as outlined by Braun and Clarke (2018), I familiarized myself with the data, generated initial codes, and developed themes. After defining the themes, I was able to recognize the overall key concepts described above. This process presented both strengths and weaknesses. With respect to strengths, this process allowed me to analyze multiple segments of data over a short span of time. This method offers simplicity that is easy to implement. Additionally, it is a process for grouping data into categories that provides meaningful patterns to the study. From the perspective of weaknesses,

thematic analysis can be reviewed as bias, coding and categorical determinations can be too broad, and as a result may be deemed generic in nature.

The Guidelines

One research study discovered that as the educational level of nurses increased, their knowledge mean score increased (Sürme et al., 2018). Kielo-Viljamaa et al. (2021) found that two nursing competence areas arose in their research study of acute wound care: (1) knowledge, skills, performance in etiology and care, and (2) wound management and assessment. Moreover, Healing Hands (2004) suggests that when assessing the wound of persons experiencing homelessness one must look at the patient's hygiene, living environment, nutrition, activity level, age, medications, history of drug abuse, pain, and other medical conditions. In other words, assessment requires a holistic evaluation. To that end, the proposed formal wound care plan would encompass the following areas to promote continuity of care and optimal wound healing: (a) accurate assessment and treatment plan by admitting hospital provider; (b) discharge education by hospital provider and reinforcement by discharging hospital nurses; (c) coordinated hospital discharge to include transportation to rehab site; (d) interdisciplinary team of experts to address mental, physical, and nutritional health; (e) admission as an in-patient for short stay wound care treatment; (f) unrestricted access to physical therapy equipment and services; and (g) predischarge instruction video on wound care, medications, nutrition, emergency contacts, self-management, and follow-up care.

Upon discharge from rehab, patients need assistance on reentry into the community. This requires the coordination of discharge from the rehab to a special-needs shelter. This type of shelter provides services to eligible persons, including periodic wound care assistance to make dressing changes, administer medication and breathing treatments, insert feeding tubes, and

perform dialysis. Alternatively, patients may opt for assistance through Housing First, which offers permanent or temporary housing as this program usually has subsequent options for mental health or substance abuse assistance. Although these two housing options offer basic medical services and supplies, formal wound care plan sought in this DNP project would distribute needs-specific health kits to all patients discharged from the facility. To address the nutritional needs of this vulnerable population, a local food bank agreed to provide two free meal vouchers each day with proof of a therapeutic diet order from a registered dietician.

Limitations of Project

Considering the scope of the project, implementation in a singular location was ideal for the study. As a result, the project was indeed limited as survey responses were influenced by the care management instituted from this one local rehabilitation center. Homelessness spans the world and despite the most common social determinants in the United States contributing to its state, discontinuity of knowledge and applied skills remains evident and hampers uniformity of wound care across continents.

Summary

This clinical practice pilot project utilized the modified Delphi method developed by the Rand Corporation to foster interdisciplinary collaboration within the scope of the transitional care model to create a formal wound care plan for homeless persons needing wound care. Here, data collection among the panelists was collected, coded, and categorized into groups. The information was then analyzed and crafted into themes. In Chapter 5, I discuss the findings about which I presented a working outline of the formal wound care plan to the center's leadership as part of their continuous quality improvement efforts.

Chapter 5: Discussion, Conclusions, and Recommendations

Reflecting on the goal of this DNP project, I charged the panelists to discuss and develop a wound care program to foster continuity of care at the rehabilitation settings for homeless populations presenting with complex wounds. Understanding that this called for a restructuring of current nursing practice, the focus of this study was to head an interprofessional team at a rehabilitation center to design a forward-thinking postdischarge plan for persons experiencing homelessness requiring wound care. Chapter 5 delves into a discussion of the findings and the relationship it brings to DNP Essentials II and III along with final recommendations for future clinical practice.

Discussion of Findings

The results of this study showed that an interdisciplinary team of healthcare experts possess similar ideals with regard to knowledge and clinical skills surrounding wound care. These ideals include addressing gaps in wound care knowledge, clinical skills, time, cost, and direct patient care of homeless populations. Furthermore, by reaching consensus, these constructs were recognized by panelists as being necessary and impactful in designing a formal wound care program.

Consistent with the literature, this DNP project also found that providers and nurses lack knowledge and skills in wound care. As such, the panelists reached consensus on the creation and the intent to follow an annual wound care certification for caregivers. The annual certification would require 10 lecture hours and 10 practicum hours of continuing education on wound care that include the following:

- Overview
- Wound care basics (lecture)

- Wound care identification, etiology, and treatment
- Wound care cost and supplies
- Wound care healing and time intervals
- Special needs of the homeless population

Discussion of Findings in Relation to DNP Essentials

This project addressed DNP Essential II: Organizational and Systems Leadership for Quality Improvement, and DNP Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice. Past experiences with transitions of care for homeless patients to this local rehabilitation center proved challenging. In communication with the facilities leadership, the gap in nursing practice was identified and a collaboration to restructure care delivery approaches was forged. As an experienced registered nurse, the opportunity to affect change at the site level was not only necessary but part of my responsibility.

Sherrod and Goda (2016) share that the Executive DNP graduate is positioned to shift change for both patient and population in the design of new care models. They further state that the DNP-prepared leader understands the need to navigate policy implications of patient care decisions where innovative team-based models are engaged to improve quality and services. This is in direct correlation with this DNP project in which my goal was to lead a team of interdisciplinary experts to reach consensus in the development of a formal wound care plan.

Recommendations for Future Clinical Practice

Research shows that didactic and clinical education improves quality and refines nursing practice (Sürme et al., 2018). As a result, the phenomena of patients experiencing homelessness who present to the hospital ER with open wounds, ulcers, or dehiscence from surgical procedures or previous lower limb amputations and have been considered complicated cases for discharge

planning, can be significantly minimized. In this collaborative investigation into the constructs of a formal wound care plan with this one local rehabilitation center, I can offer some recommendations for future clinical practice:

- Timely documentation can reduce medical errors and foster patient safety.
- Accurate identification and treatment of wounds can expedite healing.
- Annual certification can ensure the latest technological advancements in wound care, i.e., supplies and techniques are acquired.
- Cost and time analysis can allow for accommodations in treatment.
- Improved patient education can result in greater self-care management.

Summary

The purpose of this DNP scholarly project was to lead an interprofessional team at a rehabilitation center to create an innovative postdischarge program for the homeless needing wound care. The practice-focused question was the following: Will an interprofessional team reach consensus to create a plan for the innovative service? The desired outcome was a program outline that could be adopted into a grant application to fund this program. By utilizing the modified Delphi process in collaboration with an interdisciplinary team of healthcare experts to reach consensus, the lack in nursing practice was addressed. Reflecting on the literature review in Chapter 2, the TIME framework, which discussed how tissue, infection, moisture, and the epidermis are contributing factors in wound healing, and the Leeds framework, which discussed standardizing care, this study sought to incorporate both ideals into a simplified, formal wound care plan. Looking ahead, future studies may seek to examine how and to what degree the facility implemented this plan. It would be interesting to explore the next steps in this formal wound care design. Without initiating these recommendations, patients' conditions may

potentially worsen leading to compounding disease processes, more aggressive treatments, amputations, and even death. These recommendations strengthen nursing practice and cultivate seamless transitions of care from hospital to rehabilitation facility.

References

AGREE II. (2017). Appraisal of guidelines for research and evaluation. https://www.agreetrust.org/agree-ii/

Al-Gharibi, K. A., Sharstha, S., & Al-Faras, M. A. (2018). Cost-effectiveness of wound care: A concept analysis. *Sultan Qaboos University Medical Journal*, *18*(4), e433–e439. https://doi.org/10.18295/squmj.2018.18.04.002

Arnetz, B. B., Goetz, C. M., Arnetz, J. E., Sudan, S., van Schagen, J., Piersma, K., & Reyelts, F. (2020). Enhancing healthcare efficiency to achieve the Quadruple Aim: an exploratory study. *BMC Research Notes*, *13*(1), 362. https://doi.org/10.1186/s13104-020-05199-8

Arputhanathan, H., Hyde, J., Atilola, T., Queen, D. Elliott, J., & Sibbald, R. G. (2022). A patient navigation model to improve complex wound care outcomes. *Advanced Skin Wound Care*, *35*(9), 499–508. https://doi.org/10.1097/01.ASW.0000853044.86761.d9

Baumann, L. A., Baker, J., & Elshaug, A. G. (2018). The impact of electronic health record systems on clinical documentation times: A systematic review. *Health Policy*, *122*(8), 827–836. https://doi.org/10.1016/j.healthpol.2018.05.014

Boxer, D. (2016). Google groups for business. *Blake Groups.* https://support.blakeschool.org

Brady, S. R. (2015). Utilizing and adapting the Delphi method for use in qualitative research. *International Journal of Qualitative Methods*, *14*(5). https://doi.org/10.1177/1609406915621381

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2). 77–101.

Brouwers, M. C., Kho, M. E., Browman, G. P., Burgers, J. S., Cluzeau, F., Feder, G., Fervers, B., Graham, I. D., Grimshaw, J., Hanna, S. E., Littlejohns, P., Makarski, J., Zitzelsberger, L., & AGREE Next Steps Consortium (2010). AGREE II: Advancing guideline development, reporting and evaluation in health care. *Journal of Clinical Epidemiology, 63*(12), 1308–1311. https://doi.org/10.1016/j.jclinepi.2010.07.001

Carr, D. D. (2019). High-quality care transitions promote continuity of care and safer discharges. *Journal of the New York State Nurses Association*, *46*(2). https://issuu.com/nystatenursesassociation/docs/nysnajournalv46no2/s/10321671

Center of Advanced Wound Care. (2020, May 12). *What is the difference between acute and chronic wounds?* https://www.centerforadvancedwoundcare.com/blog/whats-the-difference-between-acute-and-chronic-wounds/

Delaplain, P. T., & Joe, V. C. (2018, June). Problems and costs that could be addressed by improved burn and wound care training in health professions education. *AMA Journal of Ethics*. https://doi.org/10.1001/journalofethics.2018.20.6.medu1-1806

Dolmy, M. (2002). *Delphi technique: A step-by-step guide*. HRM Leaders. https://hrmleaders.com/delphi-techniqu-a-step-by-step-guide/

Dowsett, C. (2009). Use of TIME to improve community nurses' wound care knowledge and practice. *Wounds (UK), 5*(3). https://www.woundsinternational.com/uploads/resources/content_9293.pdf

Duffy, J. R. (2016). *Professional practice models in nursing: Successful health system implementation*. Springer.

Gillespie, B., Chaboyer, W., Allen, P., Morely, N., & Nieuwenhoven, P. (2014) Wound care practices: A survey of acute care nurses. *Journal of Clinical Nursing, 23*(17-18), 2618–2626. https://doi.org/10.1111/jocn.12479

Healing Hands. (2004). Wound care difficult for homeless patients and providers. HCH Clinicians Network. https://nhchc.org/wp-content/uploads/2019/08/June2004healinghands.pdf

Hirschman, K. B., Shaid, E., McCauley, K., Pauly, M., & Naylor, M. (2015). Continuity of care: The transitional care model. *Online Journal of Issues in Nursing, 20*(3), Manuscript 1. https://doi.org/10.3912/OJIN.Vol20No03Man01

Hurlow, J., & Bowler, P. G. (2022). Acute and chronic wound infections: Microbiological, immunological, clinical, and therapeutic distinctions. *Journal of Wound Care, 31*(5), 436–445. https://doi.org/10.12968/jowc.2022.31.5.436

Institute of Medicine (US) Committee on Health Care for Homeless People. (1988). *Homelessness, health, and human needs*. National Academies Press 3. https://www.ncbi.nlm.nih.gov/books/NBK218236/

Kielo-Viljamaa, E., Suhonen, R., Jalonen, L., & Stolt, M. (2022). Areas of nursing competence in acute wound care: A focus group study. *Collegian*, *29*(1), 44–53.

Lockwood, C., & Mabire, C. (2020). Hospital discharge planning: Evidence, implementation, and patient-centered care. *JBI evidence synthesis*, *18*(2), 272–274. https://doi.org/10.11124/JBIES-20-00023

Merrick, C. (2019). *Cost of consensus*. iammerrick. https://dev.merrickchristensen.com/

Moorley, C. (2021). *The future of nursing in improving health equity*. National Academies Press. https://nap.nationalacademies.org/read/25982/chapter/7

Nasa, P., Jain, R., & Juneja, D. (2021). Delphi methodology in healthcare research: How to decide its appropriateness. *World Journal of Methodology*, *11*(4), 116–129. https://doi.org/10.5662/wjm.v11.i4.116

National Alliance to End Homelessness. (2023). *State of homelessness: 2022*. https://endhomelessness.org/homelessness-in-america/homelessness-statistics/state-of-homelessness/

National Academies Press. (2018, July 18). Permanent supportive housing: Evaluating the evidence for improving health outcomes among people experiencing chronic homelessness. *National Library of Medicine*. https://www.ncbi.nlm.nih.gov/books/NBK519584/

Niederberger, M., & Koberich, S., & members of the DeWiss Network. (2021). Coming to consensus: The Delphi technique. *European Journal of Cardiovascular Nursing*, *20*(7), 692–695. https://doi.org/10.1093/eurjcn/zvab059

Nursing Theory. (2023). Hildegard Peplau – Nursing theorist. https://nursing-theory.org/nursing-theorists/Hildegard-Peplau.php

Ogbeifun, E., Agwa-Ejon, J., Mbohwa, C., & Pretorius, J. H. C. (2016, March 8–10). *The Delphi technique: A credible research methodology*. 2016 International Conference on Industrial Engineering and Operations Management, Kuala Lumpur, Malaysia. http://ieomsociety.org/ieom_2016/pdfs/589.pdf

Ousey, K., Stephenson, J., Carter, B. (2016). Tissue viability leading change competency framework: Preliminary analysis use. *Wounds UK*, *12*(3), 30–35. http://www.wounds-uk.com/pdf/content_11842.pdf

Rae, B., & Rees, S. (2015). The perceptions of homeless people regarding their healthcare needs and experiences of receiving health care. *Journal of Advanced Nursing, 71*(9), 2096–2107.

Rudolph, D. (2022, January 21). *The issue of noncompliance in wound care patients*. Wound Source. https://www.woundsource.com/blog/issue-noncompliance-in-wound-care-patients

Samuriwo, R., & Hannigan, B. (2019). Wounds and mental health care: System thinking. *Mental Health Review Journal*, *24*(4), 298–305. https://doi.org/10.1108/MHRJ-03-2019-0007

Schultz, G. S., Barillo, D. J., Mozingo, D. W., & Chin, G. A. (2004). Wound bed preparation and a brief history of TIME. *International Wound Journal*, *1*(1), 19–32. https://doi.org/10.1111/j.1742-481x.2004.00008.x

Sherrod, B., & Goda, T. (2016). Prepared leaders guide healthcare system change. *Nursing Management (Springhouse), 47*(9), 13–16. https://doi.org/10.1097/01.NUMA.0000491133.06473.92

Shirley, M. R., Selleck, C. S., White-Williams, C., Talley, M., & Harper, D. C. (2021). Interprofessional collaborative practice model to advance population health. *Population Health Management, 24*(1), 69–77. https://doi.org/10.1089/pop.2019.0194

Snowden, A., Donnell, A., & Duffy, T. (2014). *Pioneering theories in nursing*. Andrews UK.

Stafford, A., & Wood, L. (2017). Tackling health disparities for people who are homeless? Start with social determinants. *International Journal of Environmental Research and Public Health*, *14*(12), 1535. https://doi.org/10.3390/ijerph14121535

Stowell, S. (n.d.) *5 most common organizational problems*. Center for Management & Organization Effectiveness. https://cmoe.com/blog/organizational-problem/

Subedi, K., Acharya, B., and Ghimire, S. (2022). Factors associated with hospital readmission among patients experiencing homelessness. *American Journal of Preventative Medicine*, *63*(3), 362–370.

Sullivan, G. M., & Artino, A. R., Jr (2013). Analyzing and interpreting data from Likert-type scales. *Journal of Graduate Medical Education*, *5*(4), 541–542. https://doi.org/10.4300/JGME-5-4-18

Sürme, Y., Kartın, P. T., & Çürük, G. N. (2018). Knowledge and practices of nurses regarding wound healing. *Journal of Peri Anesthesia Nursing: Official Journal of the American Society of Peri Anesthesia Nurses*, *33*(4), 471–478. https://doi.org/10.1016/j.jopan.2016.04.143

Transitions of Care Standards. (n.d.). *American Case Management Association.* https://transitionsofcare.org/wp-content/uploads/2019/01/ACMA-Transitions-of-Care-Standards_Final_Endorsed-2.pdf

Thomas, D., & Schoonover, H. (2019, April). Reducing readmission rates: A data-driven, multidisciplinary approach. *Healthcare Financial Management*, *73*(4), 44–47.

Vernon, D., Brown, J. E., Griffiths, E., Nevill, A. M., & Pinkney, M. (2019). Reducing readmission rates through a discharge follow-up service. *Future Healthcare Journal*, *6*(2), 114–117. https://doi.org/10.7861/futurehosp.6-2-114

Waring J., Marshall, F., Bishop, S. (2014, September). An ethnographic study of knowledge sharing across the boundaries between care processes, services, and organizations: the contributions to 'safe' hospital discharge. *NIHR Journals Library*. https://doi.org/10.3310/hsdr02290

World Health Organization. (2016). *Transitions of care: Technical series on safer primary care*. https://apps.who.int/iris/bitstream/handle/10665/252272/9789241511599-eng.pdf

World Health Organization. (2018). *Rehabilitation*. Retrieved from https://www.who.int/news-room/fact-sheets/detail/rehabilitation

Williams, K. (2022). *Managing skin tears in care homes*. The Society of Tissue Viability 2022 Conference, University of Huddersfield and Leeds Community Healthcare Trust, U.K. https://societyoftissueviability.org/person/kate-williams/

Appendix A: E-Flyer

You are invited to participate in a research study.

Please find the details below and then continue to the survey located at the bottom of the page which will be available for only 1 week.

Thank you for your dedication to the furtherance of nursing theory and clinical practice.
An expert interdisciplinary team is needed in the creation of a formal wound care program for the homeless requiring wound care post discharge. This program has received leadership approval from the local rehabilitation site as the pilot location.
NOTE: Panel solicitation limited to subject matter expertise only. Panelists will not be required or petitioned to divulge any proprietary information of your organization.
Panelist will be appointed on a voluntary basis with all contributions credited.
10 experts in the field of wound care needed to complete the research study.
Non-clinical expert panelists should possess:
Master's degree in disciple
10 years practice experience
Knowledge of social determinants of homelessness relative to disciple
Proof of ongoing education and training in discipline
Clinical expert panelists should possess:
Master's degree in disciple
Certification in wound care
10 years practice experience
Knowledge of social determinants of homelessness relative to discipline
Proof on ongoing education and training in disciple

The research will be conducted over a span of 1 week using the Modified Delphi method consisting of three rounds. The data will be collected using 5-point Likert scale questionnaires. Space will be provided on the questionnaire to modify questions, add comments, or make suggestions.
All interdisciplinary collaboration and feedback will commence using the Google docs platform. For questions contact staff prior to submitting the survey as submissions are considered an indication of your commitment to satisfy the terms of the research study. Email: xxxxxxxxxxxxx

Terms: Full participation (timely submission of Likert scale questionnaires per round) to project end (completion of the third Delphi round).
Enter Survey: here

Appendix B: Survey

Expert Panel Self-Selecting Survey

Select whether your position is Clinical or Non-Clinical

Please select the appropriate responses below:

1. Please indicate degree: Doctorate Master Bachelor
2. Please indicate years of experience in discipline: 20 15 10 5 < 5
3. Please indicate if you possess knowledge of social determinants in homeless populations: YES NO
4. Can you supply proof of CEUs? : YES NO
5. Do you have certification in wound care? : YES NO
6. Do you agree to remain anonymous for the research study? : YES NO
7. Can you dedicate the time required to complete the research study? : YES NO

Appendix C: Likert Scale Questionnaire

Likert scale questionnaire:

Rate your perception of importance of whether these constructs are required for a formal wound care program among an interdisciplinary team.

5 = very important; 4 = important; 3 = moderately important
2 = slightly important; 1 = unimportant

1. Theoretical knowledge of wounds
2. Practical knowledge of wound
3. Skills in accurate wound assessment
4. Skills in accurate identification of treatment procedures
5. Experience treating acute wounds
6. Experience treating chronic wounds
7. Knowledge of dressing for specific types of wounds
8. Experience using various dressings for specific types of wounds
9. Recognizing emergent wounds
10. Understanding cost-effectiveness of wound care
11. Understanding patient safety
12. Recognizing timeframe as an essential component in treatment
13. Understanding the comorbidities compounding treatment
14. Interdisciplinary collaboration
15. Importance of effective transitions and continuity of care
16. Benefits of self-management
17. Ongoing patient and clinician education and training
18. Incorporating critical thinking
19. Incorporating problem solving
20. Standardizing care
21. Reducing variation in treatment
22. Accurate documentation
23. Timely documentation
24. Early-stage detection
25. Benchmarking by industry guidance

(Please use the space below to modify the question, make comments, or suggestions)

Appendix D: Overview

Introduction

You have been invited to collaborate as an interdisciplinary team of experts using this Google doc platform. Here, the facilitator will distribute the questionnaires and manage responses for your review and feedback. As such, you are reminded of your commitment to complete the research study in its entirety, to remain anonymous, to be professional in the timeliness of your deliverables and respectful of others input as a team

Purpose of the Study

The purpose of this qualitative approach to the Modified Delphi study is to evaluate consensus among an interdisciplinary panel of experts in the creation of a formal wound care program. The desired outcome is a program outline that can be adopted into a grant application for funding of this program. The facility's leadership has agreed to participate in the creation of this program as part of their continuous quality improvement strategy.

Target Population

According to the Stewart B McKinney Homeless Assistance Act of 1987, homelessness is defined as the absence of a permanent and continuous overnight dwelling, or rather nightly accommodations that are monitored, shared, or temporary (NAP, 1988).

Reaching consensus utilizing the qualitative Delphi method requires focus on this person within this population who have complex wounds and are transitioning from the acute care setting into rehabilitation.

Appendix E: Instructions

The Qualitative Approach to the Modified Delphi Method

1) Facilitator: Responsible for the data collection and management of the research.
2) Panel: Responsible for reaching consensus. *Hypothesis: Can an interdisciplinary team of experts work cohesively to develop an outline for a formal wound care plan for homeless persons needing wound care post discharge.*
3) Round one of the Modified Delphi method:
    a. Consists of 8 questions distributed on a 5-point Importance Likert scale questionnaire focused on determining the importance ranking for each question.
    b. Panelists will be given one week to make selections and return responses via the sharable Google doc.
        i. After which time, the facilitator will begin to decipher the data, group the responses, and formulate a Histogram to easily determine trends amongst the participants.
    c. The facilitator will then distribute the data to the panelist for modifications, comments, and suggestions for Round one.

Note: 1) Two days, to begin the next round
2) Round two will repeat as Round one with 8 questions
3) Round three will repeat as Round two with 9 questions

Appendix F: IRB Approval Letter

Date: 3-3-2023

IRB #: IRB-2023-30
Title: Formal Wound Care Plan
Creation Date: 2-9-2023
End Date:
Status: Approved
Principal Investigator: Sophia Johnson
Review Board: ACU IRB
Sponsor:

Study History

Submission Type Initial	Review Type Exempt	Decision Exempt

Key Study Contacts

Member Mary Garner	Role Co-Principal Investigator
Member Sophia Johnson	Role Principal Investigator
Member Sophia Johnson	Role Primary Contact