

**Establishing Linguistic Care Guidelines for Home-based Nurses to Improve Linguistic
Competence in Care Delivery Through the Utilization of Interpreter Services**

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Abstract

Problem under investigation: Inadequate utilization of interpreter service in a home-based facility.

Background: Staff or care providers are rendering home-based care to diverse patients of multicultural and linguistic backgrounds and there are instances in which these home-based staff and care providers are faced with communication challenges with patients pertaining to their care due to the language barrier. Evidence shows that healthcare delivery and patient outcomes are affected by language barriers (Squires, 2018). Language barriers may challenge care providers' delivery of linguistically competent care as these impact patient safety activities and the provision of efficient care (Al Shamsi et al., 2020). Al Shamsi et al. (2020) proposed the utilization of interpreter services to solve challenges in language barriers.

Methods: The PDSA Cycle Model was utilized for this quality improvement project. The process begins with planning and testing an improvement idea (Plan), followed by its implementation and data collection (Do). Subsequently, the results are assessed, and decisions are made whether to proceed with the idea or initiate a new improvement cycle (Study and Act). During the project implementation, orientation sessions were performed to orient the participants on the use of the ABC Toolkit.

Intervention: A series of orientations were conducted regarding the use of ABC Toolkit to cover the entire practice site's nurses, nurse practitioners, and other staff. The ABC Toolkit was utilized for every homecare patient encounter. The ABC toolkit increased the utilization of interpreter services as it plays in enhancing linguistic competence and breaking down language barriers in healthcare delivery.

Results: Across the study, 150 patients with limited English proficiency attended, with providers

using interpreter services 34 times, averaging 23% usage. For a 5-week period, 30 times the ABC toolkit has suggested that an interpreter service shall be utilized per patient encounter. Weekly variations were seen: Week 1 had 10% interpreter services utilization (3 out of 29 patients with limited English proficiency), Week 2 had 19% (7 out of 37 patients), Week 3 peaked at 27% (9 out of 33 patients), Week 4 had 24% (7 out of 29 patients), and Week 5 peaked at 36% (8 out of 22 patients).

In addition to this, the result showed that there is a statistically significant difference in the utilization of interpreter services before and after the implementation of the ABC Toolkit suggesting that the implementation of the ABC Toolkit has had a statistically significant impact on the utilization of interpreter services.

Increased interpreter services utilization correlated with higher attendance to patients with limited English proficiency, suggesting better care, especially for patients with language barriers.

Conclusions: The DNP project focused on establishing linguistic care guidelines for Homebase Health Care, LLC personnel, with the aim of enhancing linguistic competence through the efficient utilization of interpreter services. The project successfully achieved its objectives of orienting and training personnel on the assessment, booking, and use of interpreter services, resulting in a noticeable increase in the utilization of these services over a five-week period. The data revealed fluctuations in interpreter service usage, with a notable peak in Week 3, suggesting that providers became more proficient with the ABC toolkit and more engaged in using interpreter services. This project reinforces the significance of interpreter services in providing linguistically competent care, highlighting the need for healthcare institutions to prioritize their utilization, ongoing training, and monitoring to ensure better outcomes for patients with limited English proficiency.

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Linguistic Care Guidelines for Home-based Nurses to Improve Linguistic Competence in Care Delivery through Utilization of Interpreter Services

In providing care, nurses are constantly communicating with the patients about patient diagnoses, care management, medications, and other important health education aspects. Thus, efficient communication is a crucial component in providing safe, quality, and effective care. It is also the fundamental foundation of the nurse-patient relationship.

Patients and their families with difficulty understanding the English language are challenged to grasp the amount of health information regarding medication regimens, required follow-up care, needed diagnostic tests, and other health-related information that is significant in patients' positive health outcomes. According to Tiwary et al. (2019), the lack of language-concordant healthcare services in the United States among a racially and ethnically diverse population is the top contributory factor to healthcare disparities and related outcomes. Poor Communication may result in poor health outcomes and a life-threatening impediment to patients.

The fast-growing population in the United States is composed of immigrants or foreign-born populations with limited English proficiency (LEP) (Batalova & Alperin, 2018). The LEP population is underserved and receives inequality in healthcare delivery resulting in a higher risk of unfavorable health outcomes. Based on the study conducted by Pandey et al. (2021), it was found that the language barrier impedes effective communication resulting in lower patient satisfaction and suboptimal care. A language barrier between patients and healthcare providers leads to a higher number of adverse health outcomes for patients, delayed access to timely care, patients having lower trust in quality care, and interference with adherence to treatment regimens and follow-up care.

Buser et al. (2022) observed that interpreter services are not fully utilized during health

interventions provided to families with limited language proficiency (LLP) even though there are available interventions to increase the utilization of professional interpreters (Karliner, 2017). Shrestha-Ranjit et al. (2020) investigated the effectiveness of interpreting services for refugee women in New Zealand, and it was found that the women in the study's inability to communicate in English hampers them from accessing needed health services. Furthermore, it was observed that the unavailability of in-person interpreter services in the facility led them to a poor discussion of their health problems. Lastly, it was also noted that the study groups are using the patient's family members as interpreters making the patient uncomfortable in disclosing health issues.

Problem Identification

The problem identified at the project site is the lack of guidelines on how to efficiently use interpreter services to improve nurses' linguistic competence. Homebase Health Care, LLC is the selected project site. The facility is in Las Vegas, Nevada that provides home visiting services to patients of various races and ethnicities needing home-based care. Since nurses are rendering home-based care to diverse patients of multicultural and linguistic backgrounds, there are instances that home-based nurses are faced with communication challenges with patients pertaining to their care due to the language barrier. Evidence shows that healthcare delivery and patient outcomes are affected by language barriers (Squires, 2018). Language barriers may challenge nurses' delivery of high-quality healthcare as these impact patient safety activities and the provision of efficient nursing care (Al Shamsi et al., 2020). Al Shamsi et al. (2020) proposed the utilization of interpreter services to solve challenges in language barriers.

Currently, the project site has no established linguistic care guidelines for home-based nurses to address language barrier problems, especially when caring for patients with limited English proficiency. Therefore, the nurses working at Homebase Health Care, LLC cannot fully

render efficient health services to these patients. There are several strategies for addressing this concern that can be used by the facility, and this DNP project proposes to address these gaps.

This Doctor of Nursing Practice (DNP) project aims to establish a guideline for nurses working at Homebase Health Care, LLC to improve linguistic competence in care delivery through the effective utilization of interpreter services. This hopes to resolve challenges in language barriers to render the most efficient, safe, and quality patient care.

Project Question

In staff and care providers working at Homebase Health Care, LLC, will the establishment of linguistic care guidelines to utilize interpreter services compared to the patient's family members' language interpretation improve the effective utilization of interpreter services by staff and care providers within 4 weeks of implementation?

Search Methods

A systematic search was performed through online databases such as MEDLINE, CINAHL, and PUBMED to obtain peer-reviewed and full-text articles. The following keywords/phrases were used as search terms: "medical interpreter services" or "language interpreter services" or "language barriers" or "English language proficiency in healthcare" or "language concordant care" or "linguistic competence".

Using the above-mentioned search terms a huge volume of relevant and irrelevant articles were generated. A total of 7,091 results were gathered using MEDLINE database. After narrowing down the search criteria to peer-reviewed, full-text, peer-reviewed, English-language articles, and published between 2018 and 2022, a total of 449 results were obtained. With the CINAHL Plus with a full-text database, a total of 4,785 results were gathered. The search criteria were narrowed down to full-text, peer-reviewed, English-language articles, and published

between 2018 and 2022, a total of 27 results were generated. In addition to MEDLINE and CINAHL Plus with full-text database, the PUBMED database was also utilized which generated a total of 46,392 article results. After narrowing down the search criteria to peer-reviewed, full-text, peer-reviewed, English-language articles, and published between 2018 and 2022, a total of 1,841 results were obtained.

For an article to be selected inclusion criteria were applied. Only articles that contain data on linguistic nursing care, the use of interpreter services for patient care, and language interpretation of patients' families pertaining to patient care were selected. Included articles shall also be in the English language, were peer-reviewed, and were published from 2018 up to the present. Articles that contain data on linguistic care and the use of interpreter services not related to patient care were excluded and those articles published more than 5 years from the current year were also excluded.

Of the total obtained results from the 3 online databases and after narrowing down the search criteria, the generated articles were filtered for duplicate results. Only 10 articles were selected that fit the literature review.

Review of Study Methods

The study methodologies utilized were qualitative descriptive study, pre-and post-intervention study, exploratory qualitative design, qualitative exploratory design, realist methodology, and mixed methods study. and cross-sectional study. The methodologies used by the authors in their study are significant to this DNP project since the results are peer-reviewed for validity and reliability. The study methods used also yielded similar results regarding the effects of language barriers on patient care outcomes and patients' level of satisfaction pertaining to their received healthcare services.

Review Synthesis

The themes developed on this DNP project was based on the in-depth analysis and evaluation of previous studies that were related to linguistic competence issues faced by nurses and other care providers among patients of diverse linguistic backgrounds. The main themes that surfaced include the effects of language barriers and the importance of linguistic guidelines for the utilization of interpreter services. These themes are the main points of reference when establishing linguistic care guidelines for home-based staff and other care providers to improve linguistic competence in care delivery through the utilization of interpreter services.

Review of Literature

Effects of Language Barriers

Nowadays, healthcare services and systems are being challenged by an increasing number of migrant populations. These foreign-born individuals who have limited English proficiency are the ones who are most likely to experience inequalities in healthcare due to the language barrier. Barriers in communication delays patient from accessing healthcare services and impede establishing rapport between the health provider and the patient leading to patient's dissatisfaction (Soh, et al. 2022) with their patient care experience (Pandey, et al., 2021) and suboptimal care (White et al., 2018).

When there is a need for healthcare services, patients rely on their families or caregivers as interpreters (Buser, et al., 2022; Lundin et al., 2018). Language barriers make other patients give less trust and confidence in healthcare professionals. They also question the ability of professional interpreters thus they prefer and rely more on their known family members or trusted people to interpret for them (Rayment-Jones, et al. 2021).

According to Gerchow et al. (2021), nurses' understanding of the effects of language

barriers will help them search for relevant strategies to overcome language barriers with the goal of reducing the risk for health disparities in relation to language barriers. The authors also emphasized that there should be a continuous exploration of the impacts of language barriers on healthcare as patient demographics are continually evolving.

Importance of Linguistic Guidelines for the Utilization of Interpreter Services

Since communication is one of the vital tools in providing efficient patient care, many healthcare institutions are creating strategies on how to effectively cater to patients of various cultural and linguistic backgrounds. Rajbhandari et al. (2021) created a quality improvement program to improve access and use of interpreter services as well as to enhance workflow on the utilization of interpreter services. The program has successfully improved the use of interpreter services through collaboration with other healthcare professionals and with the support of hospital leadership. On the other hand, in the study conducted by Patriksson et al. (2019), it was observed that although there are already existing guidelines for the use of interpreters, many health professionals stated that they are not aware of the guidelines and are not fully utilizing it.

In the study conducted by Lundin et al. (2018), it was observed that the existence of guidelines, policies, and the knowledge of national laws govern the utilization of interpreting services. The decision whether to use or not to use interpreter services varies among healthcare providers and hospital areas. There are hospital areas such as psychiatric care, wherein healthcare providers are aware of the existence of formal policy on the utilization of interpreter services and that the use of patients' family members as interpreters is not allowed. Contrary to this, in ambulance and somatic emergency care areas, the health care providers utilize informal guidelines and use family members as interpreters despite knowing that there is a formal policy in place.

To ensure the provision of accessible, safe, and quality care for individuals who are not

proficient in the English language, the New South Wales (NSW) Ministry of Health established a standard procedure for working with interpreters. The NSW Ministry of Health mandated all NSW health organizations to comply with the established standard procedure. The policy helps health care providers and services in deciding when and how to work with health care interpreters.

In response to the NSW Ministry of Health mandate, the Health Western Sydney Local Health District created the “ABC” tool under their Health Care Interpreter Services (HCIS). ABC refers to A for Asses, B for Book, and C for Confirm which helps the health care provider in assessing if the patient needs an interpreter service.

In December 2020, the International Organization for Standardization (ISO) published the 1st edition of ISO 21998:2020 standard or the Interpreting Services-Healthcare Interpreting-Requirements and Recommendations. The standard specifies requirements and recommendations for healthcare interpreting services in spoken and signed communication. The standard is generalizable to all situations during health-related treatments, requiring healthcare interpreting and is intended for service providers and healthcare interpreters. It also provides requirements and provides recommendations on core processes, training, and education including technical and ethical as well as other aspects of healthcare interpreting services.

Establishing linguistic care guidelines to improve linguistic competence in care delivery through the utilization of interpreter services is a valuable quality improvement initiative for the facility in this DNP project.

National Guidelines

In building a healthy community and in improving individual health and safety, healthcare providers shall acknowledge and perform relevant solutions to address the unique needs of individuals of diverse languages, cultures, races, and ethnicity (Health Resource and Services

Administration, 2020). Culture and language are vital factors that influence an individual's behavior and attitudes toward seeking healthcare services (American Speech Language Hearing Association, 2023).

The Office of Minority Health under the U.S. Department of Health and Human Services created "The Guide to Providing Effective Communication and Language Assistance Services" to help healthcare organizations how effectively communicate with patients of various cultural backgrounds. The guide is designed for healthcare providers, administrators, and healthcare executives for the effective provision of language assistance services to linguistically diverse patients (U.S. Department of Health and Human Services, Office of Minority Health, 2015). To further advance and sustain the cultural and linguistic competence of community health centers, the National Center for Cultural Competence (NCCC) established the Cultural and Linguistic Competence Policy Assessment- CLCPA (Georgetown University National Center for Cultural Competence,2023).

Project Rationale

The DNP project is aimed at establishing linguistic care guidelines for staff and care providers working at Homebase Health Care, LLC to improve their linguistic competence by utilizing interpreter services. The project targets to break down language barriers between staff and care providers and patients with limited English proficiency wherein staff and care providers efficiently utilize interpreter services for linguistically competent care. This quality improvement project is aimed at devising an evidenced-based guideline to enhance staff and care providers' linguistic competence through utilization of interpreter services that will enable them to render safe, quality, and efficient care to patients of diverse ethnicities with limited English proficiency.

Project Objectives

Within 4 weeks of project implementation, the objectives are:

1. To train staff and care providers working at Homebase Health Care, LLC how to assess, book, and confirm interpreter services. *Assess* refers to the step wherein the staff and care providers assess the patient's ability to fully comprehend and communicate healthcare needs during the patient-care interaction. *Book* refers to the step wherein the patient agrees to get an interpreter and the staff and care providers coordinate with the interpreter services. *Confirm* refers to the step wherein the staff and care providers confirm the booking and the patient's booking details are recorded and the confirmed schedule of interpreter services is provided.
2. To train staff and care providers working at Homebase Health Care, LLC how to efficiently utilize interpreter services.
3. To increase the utilization of interpreter services when caring for patients with limited English proficiency.

Implementation Framework

The PDSA Cycle Model was utilized for this DNP project as it is the widely utilized model in quality improvement initiatives (Knudsen et al., 2019). PDSA Cycle or the Plan-Do-Study-Act cycle is a 4-systematic series of 4 steps that evolved from the effort of American statistician Edward W. Deming (Chen et al., 2021). The PDSA cycle is also known as the Deming Cycle used for improvement strategies in healthcare organizations allowing the organization to implement change in process or system, solve problems, and continuously improve organization's processes (Agency for Healthcare Research and Quality, 2023). The cycle starts with creating a plan to test an improvement idea (*Plan*), followed by the small-scale implementation of the plan

and collection of data (*Do*) (Chen et al., 2021). The next step is observing and learning from the result of implementation of the improvement plan (*Study*) in which a decision will be made whether to carry out the improvement idea or changes or modification is needed by instigating a new cycle of improvement (*Act*) (Chen et al., 2021).

Application to DNP Project

The PDSA Cycle is a tool that is applicable for the 4-week timeframe of this project as it requires few resources, can be carried out rapidly, and can result in a meaningful change (Chen et al., 2020). The initial step of the DNP project is establishing the linguistic care guidelines for staff and care providers working at Homebase Health Care, LLC to improve the utilization of interpreter services. In this project, the plan is to educate nurses working at Homebase Health Care, LLC on the importance of linguistically competent care, they will be given training on how to assess the need for interpreter services when they are caring for patients with limited English proficiency, and staff and care providers will be given a workshop on how to effectively utilize interpreter services to ensure that patients with LEP are satisfied with the delivered care. The project site will be informed of the schedule of orientation, training, and workshop of the home-based staff and care providers. This is the foremost step wherein the goal of the improvement initiative is identified, and the needed interventions are formulated (Agency for Healthcare Research and Quality, 2020; Chen et al., 2020).

For the Do step, the plan for orientation, training, and workshop on linguistic competence for home-based staff and care providers will be carried-out. During this step, the orientation, training, and workshop implementation will be observed, and any significant data or observations will be recorded (Chen et al., 2020). It is critical to consolidate baseline data before implementing any changes (Chen et al., 2020).

The linguistic competence orientation, training, and workshop for staff and care providers will be evaluated. Any comments and suggestions made by staff and care providers who underwent linguistic competence orientation, training, and workshop will be considered and consolidated for the Study step. The collected data will be analyzed to synthesize meaningful conclusions if the performance of activities necessary to improve the linguistic competence of home-based staff and care providers are successful or needs minor or major modifications, this is part of the Act step (Chen et al., 2020).

Setting

The setting of the DNP project is at Homebase Health Care, LLC in Las Vegas, Nevada. Homebase Health Care, LLC renders home visiting services to patients of various races and ethnicities needing home-based care. On a monthly basis, each home-based staff or care provider is conducting home visits to 60 to 80 patients of various ethnicities with diverse linguistic backgrounds. Around 25% of home-based patients account for Black Americans, followed by Asians, Caucasians, Hispanic and other races. Currently, there is a total of 38 personnel at Homebase Health Care, LLC. Of the 38 personnel, 7 are nurse practitioners and 8 are registered nurses and the rest are holding administrative and support positions in marketing, human resource, information technology, finance, and others.

Population of Interest

The population of interest for this DNP project will include staff and care providers currently employed at Homebase Health Care, LLC. They will form the direct population of interest for this project. The staff and care providers are the focus of training on how to efficiently utilize interpreter services to improve their linguistic competence in care delivery. To be included in the project, staff and care providers should be currently employed at the project site and

provide direct patient care.

Patients receiving care from home-based staff and care providers will compose the indirect population of interest. Adult patients with languages other than English and receiving care from home-based staff and care providers are the indirect population of interest.

Stakeholders

The identified stakeholders relevant to this DNP project are the company owner, the operations manager, and the staff and care providers. One of the most significant stakeholders for the DNP project is the company owner, according to Hans (2019), the business owner holds the main duties to increase income, profits, cash flow, and long-term value, while producing greater outcomes with the same resources, effort, tasks, personnel, and financial investments in the company. The operations managers are significant as they play an essential role in improving the organizational design, developing operational strategy, monitoring performance indicators, and having solid financial acumen (Houston, 2021).

For the DNP project to actually happen, it is crucial to have authorization and permission to carry out the project at the chosen site. The company owner granted permission to conduct the project at Homebase Health Care, LLC.

Interventions

The project's activities will take place during the project site's operating hours. The project lead will offer support to home-based staff and other care providers in utilizing the ABC Toolkit in every patient encounter, using both in-person methods and communication channels like phone or mobile calls, Viber, or emails as required. Below is a weekly schedule of the implementation process.

Week 1

During this week, a series of orientations will be conducted regarding the use of ABC Toolkit to cover the entire practice site's staff and other care providers. Progress will be tracked, and an additional orientation session will be provided if necessary. After the orientation, the toolkits will be distributed.

Weeks 2-4

The ABC Toolkit will be utilized for every homecare patient encounter. Continuous education and guidance will be provided to home-based staff and other care providers to guarantee the success of the program. Home-based staff and other care providers will utilize the toolkit for every home-based patient encounter to determine the need for an interpreter service, and compliance will be monitored weekly through data collection and assessments to identify areas of improvement and provide additional support where needed. If necessary, participants will receive an additional orientation.

Week 5

During Week 5, data will be compiled and analyzed to evaluate the effectiveness of the project. This will involve measuring the frequency at which healthcare providers use the ABC Toolkit when caring for patients with LEP. The process for assessing these frequencies will be explained in the Chart Audit and Data Collection Sheet (Appendix C).

Tools

This DNP project will utilize the ABC Toolkit and the Chart Audit and Data Collection Sheet. Each tool serves a specific purpose, and its functions are explained below.

ABC Toolkit (Appendix B)

This document will help home-based staff and other care providers in assessing if a patient

needs an interpreter in every encounter. ABC means Assess, Book, and Confirm. *Assess* refers to the step wherein the staff and other care providers assess the patient's ability to fully comprehend and communicate healthcare needs during the patient-care interaction. *Book* refers to the step wherein the patient agrees to get an interpreter and the staff and other care providers coordinate with the interpreter services. *Confirm* refers to the step wherein the staff and other care providers confirm the booking and the patient's booking details are recorded and the confirmed schedule of interpreter services is provided. The toolkit is intended for distribution to all home-based staff and other care providers and is crafted by the project lead with validation from the project team through consultation.

Chart Audit and Data Collection Sheet (Appendix C)

This document is designed to evaluate the rate at which home-based staff and other care providers used the ABC Toolkit when encountering or visiting home-based patients. It will also gather data on home-based staff and other care providers, including the number of patients with LEP they attend each week, and the frequency of their use of the ABC Toolkit with patients. This document will be completed on a weekly basis. The project lead developed the tool and received input from experts and the project team to ensure its validity.

Data Collection Procedure

One form will be utilized for the project to facilitate data collection. The form will be used for both home-based staff and other care providers at the project site and for the patients. The home-based staff and other care providers will complete the form by providing a unique code for each patient to ensure patient information confidentiality. The home-based staff and other care providers will also utilize the form to record if the patient speaks or understands the English language and the patient's spoken language.

The form will be accomplished daily wherein the home-based staff and other care providers, or the staff records the total number of patient visits with limited English proficiency they have attended, and the total number of occurrences ABC Toolkit was used in a week. The forms will be collected on a weekly basis to collect the information needed to calculate the outcomes. A statistician will be consulted to ensure the use of appropriate statistical testing for analyzing the collected data.

Ethics/Human Subjects Protection

This project falls under the category of quality improvement rather than research. As a result, an Institutional Review Board committee is not required, as it meets the minimum requirements for a quality improvement project. However, the project adheres to ethical standards, ensuring confidentiality and privacy in accordance with the student's code of conduct. The extraction of information followed the guidelines set by the Health Insurance Portability and Accountability Act (HIPAA) to protect sensitive healthcare data. Data collection procedures were designed to gather only the necessary information for the project, with strict measures in place to prevent unauthorized access. The anonymity of data was maintained to safeguard identities, locations, and addresses.

All participants, including home-based staff and other care providers at the project site, received education regarding the benefits and risks associated with their involvement. Benefits for participants included enhancing their skills in caring for patients with limited English proficiency, reducing inefficiencies in serving this population, and improving the overall healthcare experience for patients. Risks primarily centered around the potential loss of confidentiality and privacy of provided data. However, these concerns were addressed in the project document, and mitigation strategies were implemented as previously described.

The project lead obtained approval from the facility management wherein all employees of the home-based nursing facility will be included as participants. Email contacts of all employees from the organization were requested for project information dissemination. An email was crafted, providing an overview of the project, participation requirements, reasons to participate, and details regarding benefits and risks. Recipients were informed that the education orientation is mandatory with approval from the facility management. These emails were sent a week before the project's start to allow sufficient time for the participants to prepare their schedules. Once the project lead received confirmations, a subsequent email was sent to participants to determine their preferred dates and times. After finalizing the schedule, an email was sent containing information about the first meeting. This meeting served as confirmation of dates of attendance, marking the commencement of project activities. Participants were appropriately compensated, with clear communication provided at the outset of project implementation.

Data Analysis Plan

The data collected after the interventions will be analyzed using the SPSS statistics software. A specific process tailored for this project will be followed to conduct the statistical analysis of the collected data.

Measuring the Total Number of ABC Toolkits which the Providers Utilized for a Week

In order to assess the total number of ABC Toolkits that the home-based staff and other care providers utilized for a week at the project site when interacting with patients, participants will document the number of patients they attended daily for 5 days. The calculations will be done on a daily basis for each participant and shall be recorded accordingly.

Analysis of Results

Acknowledging the considerable population of patients with constrained English

proficiency at the project location and the absence of established linguistic protocols among healthcare providers, this initiative pursued three primary goals. Initially, it aimed to provide training to staff and other care providers employed at Homebase Health Care, LLC, enabling them to adeptly evaluate, schedule, and validate interpreter services. Subsequently, the focus was on equipping staff and other care providers with effective strategies for optimizing interpreter services within Homebase Health Care, LLC operations. Lastly, the objective encompassed boosting the incorporation of interpreter services while tending to patients who possess limited proficiency in the English language.

The intervention encompassed a sequence of orientations aimed at familiarizing all staff and other care providers across the practice site with the implementation of the ABC Toolkit. This toolkit served as an integral resource employed by healthcare providers during each interaction with homecare patients. Within this context, the toolkit was actively integrated into the routines of home-based staff and other care providers for every encounter involving home-based patients. Its purpose was to facilitate the assessment of interpreter service necessity.

The project spanned a timeframe of 5 weeks, during which its phases were executed. The initial week consisted of the orientation session, followed by subsequent interventions conducted from Week 2 through Week 5. The breakdown of patient encounters per provider per week is detailed in Table 1. Over the course of the 5-week project duration (weeks 1–5), a collective total of 150 patients with limited English proficiency received care from the three providers. On average, each provider attended to 30.00 (SD = 1.50) patients weekly. Nevertheless, the average weekly patient count per provider exhibited variability, ranging from 0.40 (SD = 0.89) to 3.60 (SD = 1.52), as indicated in Table 1.

Table 2 presented the total number of utilized interpreter services during the pre-

implementation phase was 9 services over the five weeks. The total number of utilized interpreter services during the post-implementation phase was 30 services over the same five weeks.

Moreover, based on the analysis of the data and the statistical results presented in Table 3, it can be concluded that there is a statistically significant increase in the utilization of interpreter services after the implementation of the ABC Toolkit. The calculated t-statistic (-3.934) significantly exceeds the critical t-value (2.776) for a two-tailed test at a 0.05 significance level. The result suggested that the implementation of the ABC Toolkit has had a meaningful and positive impact on the utilization of interpreter services.

The ABC Toolkit Handout Rate to Patients

Every participant was obligated to use the ABC toolkit during each interaction with homecare patients possessing limited English proficiency. The toolkit's purpose was to assess the requirement for an interpreter service.

Table 1. Interpreter Services Utilization Rate

Week	Total no. of patients with limited English proficiency attended to	Total no. of times interpreter services was utilized	The proportion of interpreter services utilization
Week 1	29	3	10%
Week 2	37	7	19%
Week 3	33	9	27%
Week 4	29	7	24%
Week 5	22	8	36%
	150	34	23%

Table 2. Interpreter Services Utilization (Pre- and Post-implementation of the ABC toolkit)

Week	Pre-implementation phase of ABC toolkit	Post-implementation phase of ABC toolkit
Week 1	3	6
Week 2	1	7
Week 3	0	7
Week 4	3	7
Week 5	2	3
	9	30

Table 3. Significant difference in the utilization of interpreter services before and after the implementation of the ABC toolkit

t-Test: Paired Two Sample for Means

	<i>PRE- IMPLEMENTATION</i>	<i>POST- IMPLEMENTATION</i>
Mean	1.8	6
Variance	1.7	3
Observations	5	5
Pearson Correlation	-0.22	
df	4	
t Stat	-3.93	
P(T<=t) two-tail	0.02	
t Critical two-tail	2.78	

Discussion and Interpretation of Results

The findings depict interpreter services utilization by staff providers over five weeks, including numbers of patients with limited English proficiency and interpreter services proportions. The project's critical findings revolve around the utilization of interpreter services by staff providers over the course of five weeks, particularly focusing on patients with limited English proficiency. Throughout the study, a total of 150 patients requiring interpreter services were attended to. The providers collectively utilized interpreter services 34 times, resulting in an average utilization rate of 23%.

Weekly, interpreter services utilization varied. In Week 1, with 29 patients, providers used it thrice (10%). In Week 2, 37 patients with limited English proficiency were attended, and interpreter services were utilized seven times (19%). Notably, Week 3 had 33 patients with limited English proficiency, and interpreter services were utilized (27%). In Week 4, seven interpreter services were utilized for 29 patients with limited English proficiency (24%). Week 5 saw 22 patients with limited English proficiency, and eight utilization of interpreter services,

peaking at 36%.

Data shows a rising utilization of interpreter services, notably in Week 3, with differing provider engagement due to patient load and familiarity. Findings underscore adapting interpreter services utilization integration in healthcare through ongoing monitoring.

The variation in patient distribution across different weeks and providers highlights the dynamic nature of patient caseloads. This aligns with prior literature indicating that patient volumes can fluctuate due to factors such as seasonal variations, patient referrals, and community demographics. The fact that certain providers consistently attended no patients in specific weeks could indicate potential gaps in patient allocation or the influence of provider specialization. It is critical to take into account patients' preferences for home-based treatment versus care in conventional brick-and-mortar locations as the use and acceptability of home-based care increases. According to a research on older people's treatment preferences, 54% of those polled preferred receiving acute sickness care in a hospital rather than at home (Chandrashekar et al., 2019).

Furthermore, Chandrashekar et al. (2019) pointed out that clinicians may be discouraged from participating in home-based treatment due to a number of issues. Care for patients at home involves lengthier visits than in a hospital or office setting, which results in a lower panel size (the number of patients for whom a care team is accountable). Only five to seven patients are seen by home-based care professionals on average each day. However, under traditional fee-for-service models that tie payment to patient volume and procedure volume, doctors are penalized for spending more time understanding and addressing the social and economic conditions that affect health, such as resolving medication discrepancies, identifying home safety issues, and connecting patients with social services.

The progressive rise in toolkit utilization over the weeks, particularly noticeable in Week 3, echoes findings from similar interventions. This suggests that as providers become more familiar with the toolkit, they are more likely to incorporate it into their practice. The observed variability in engagement could be attributed to providers' differing levels of patient load and comfort with the toolkit. This variation resonates with the existing literature, which emphasizes the importance of provider engagement and training in the successful adoption of new tools. Since nurses make up the majority of practitioners in health care systems, they have a significant opportunity to apply research to practice and affect patient and system outcomes (Lizano-Díez et al., 2022). The creation of practice guidelines does not always ensure their adoption and adherence by healthcare providers. A scoping review of the factors preventing guidelines from being implemented in healthcare settings found obstacles related to internal (knowledge and attitudes), external (organizational constraints, resources, social and clinical norms), and guideline-related (evidence, complexity, accessibility, and applicability) factors (outcomes (Lizano-Díez et al., 2022).

The project's impact on people and systems is evident through the varying patterns of attendance to patients with limited English proficiency and toolkit utilization. Providers who effectively integrated the toolkit demonstrated a potential improvement in their ability to address language barriers and provide more comprehensive care to patients with limited English proficiency. This aligns with the overarching goal of enhancing patient-provider communication and healthcare outcomes. Additionally, the results underscore the need for ongoing monitoring to ensure seamless integration of tools and practices into existing healthcare systems.

Moreover, the result showed that there is a statistically significant difference in the utilization of interpreter services before and after the implementation of the ABC Toolkit. This

result suggests that the implementation of the ABC Toolkit has had a statistically significant impact on the utilization of interpreter services.

The positive correlation between increased interpreter services utilization and higher attendance to patients with limited English proficiency suggests that the intervention had a positive impact on patient care. As interpreter services utilization grew, providers seemed to become more adept at addressing language barriers, potentially enhancing patient satisfaction and understanding of their healthcare journey. This association aligns with existing research highlighting the importance of language services in improving healthcare access and quality for linguistically diverse populations. A quality improvement program was developed by Rajbhandari et al. (2021) to improve workflow while using interpretation services as well as access to the use of those services. With the assistance of hospital leadership and in partnership with other healthcare professionals, the initiative has effectively increased the usage of interpreting services. In the study conducted by Lundin et al. (2018), it was observed that the existence of guidelines, policies, and the knowledge of national laws govern the utilization of interpreting services.

Summary of Findings

The DNP project is aimed at establishing linguistic care guidelines for nurses and other care providers working at Homebase Health Care, LLC to improve their linguistic competence by utilizing interpreter services. The project aimed to break down language barriers between nurses, other healthcare providers, and patients with limited English proficiency wherein providers shall efficiently utilize interpreter services for linguistically competent care. Three project objectives were identified, completed, and implemented, and one (c) was measured: (a) orient all personnel working at Homebase Health Care, LLC how to assess, book, and confirm interpreter services, (b) train all personnel working at Homebase Health Care, LLC how to efficiently utilize interpreter

services, and (c) increase the utilization of interpreter services when caring for patients with limited English proficiency.

The study analyzed providers' use of interpreter services over five weeks, focusing on patient numbers and utilization frequency. Across the study, 150 patients with limited English proficiency attended, with providers using interpreter services 34 times, averaging 23% usage. Weekly variations were seen: Week 1 had 10% interpreter services utilization (3 out of 29 patients with limited English proficiency), Week 2 had 19% (7 out of 37 patients), Week 3 peaked at 27% (9 out of 33 patients), Week 4 had 24% (7 out of 29 patients), and Week 5 peaked at 36% (8 out of 22 patients).

The data suggested increasing interpreter services utilization, particularly in Week 3, indicating improved provider integration with familiarity with the ABC toolkit. This aligns with prior research highlighting provider engagement's role in adopting tools.

Moreover, the generated result suggested that the implementation of the ABC Toolkit has had a statistically significant impact on the utilization of interpreter services.

Increased interpreter services utilization correlated with higher attendance to patients with limited English proficiency, suggesting better care, especially for patients with limited English proficiency. This aligns with research on language services for diverse populations. In summary, the study showed interpreter services utilization progress, influenced by provider engagement and familiarity with the use of the ABC toolkit. Continuous monitoring is crucial for successful interpreter services utilization, integration, and enhancing patient outcomes.

Rapid changes in migration patterns have led to civilizations that are more culturally and linguistically diverse. To reduce healthcare inequities, healthcare sectors must offer qualified interpreting services to patients who face a language barrier. The provision of expert interpreting

services is a global approach to bridging the language gap (Kwan, et al., 2023). Healthcare interpreters have been demonstrated to improve communication between medical staff and patients who have poor English language proficiency (Blay et al., 2018).

The project's robust points stem from its targeted data collection methodology. It adeptly compiles information concerning the utilization of interpreter services, patient counts, and utilization rates over multiple weeks. This meticulous data aggregation yields an intricate understanding of the nuanced patterns and trends intertwined with the utilization of interpreter services. Furthermore, the project illuminates the fluctuating nature of interpreter services usage, casting a spotlight on its dynamic characteristics. This understanding of usage fluctuations unveils the underlying factors that impact provider engagement and opens doors for refining this aspect. The findings don't just stop at observations; they provide actionable insights that underscore the significance of continual monitoring and adaptability. These practical insights offer valuable guidance to enhance the seamless integration of interpreter services within healthcare practices.

However, the project does have its set of limitations. Its time frame is confined to just five weeks, which potentially restricts a comprehensive exploration of long-term trends and challenges associated with the utilization of interpreter services. While the project does acknowledge provider engagement levels, it refrains from delving into the underlying causes behind the observed variability. This lack of insight into the context within which providers operate leaves gaps open for speculative interpretations concerning the factors influencing their engagement. Moreover, the findings might possess a limited ability to be generalized, as they specifically pertain to the providers and patient population under study. Consequently, their applicability to broader healthcare contexts could be constrained. Additionally, the project lacks a comparative aspect, such as a control group. This absence of a comparative element makes it intricate to isolate

the unique impact of the intervention on the utilization of interpreter services, thereby placing limitations on the depth of the assessment.

Limitations

Several constraints were identified within this project that could impact the extent to which the findings can be applied broadly and the thoroughness of the results.

Project Design

A five-week timeframe is quite short for a project aimed at developing and implementing a toolkit to improve interpreter service utilization. Creating effective tools, training home-based staff and care providers and ensuring sustained adoption of these tools typically require more time. A longer project duration would allow for more thorough development, implementation, and evaluation, resulting in a more comprehensive toolkit and increased interpreter service utilization.

In addition to this, conducting the project in a single health facility restricts the generalizability of the findings. Different healthcare facilities can have distinct patient populations, linguistic diversity, and organizational cultures. Therefore, the effectiveness of the ABC Toolkit and its strategies for interpreter service utilization may be specific to this particular facility and may not be easily transferable to other settings. Expanding the project to multiple facilities would offer a more diverse range of perspectives and enhance the applicability of the toolkit.

Moreover, relying on a small sample size, consisting of only 20 staff and care providers, can limit the project's ability to capture a representative range of experiences, perspectives, and challenges related to interpreter service utilization. A larger and more diverse sample size would provide a more comprehensive understanding of the home-based nursing workforce and potentially uncover a broader set of insights regarding the toolkit's effectiveness.

Data Collection

The limited timeframe for data collection with the ABC toolkit might have constrained the project's capacity to obtain a thorough overview of interpreter service utilization. Healthcare providers' linguistic competence can differ, and patients' requirements may be influenced by their cultural and linguistic backgrounds. The relatively short assessment period may not have permitted a deep understanding of the long-term effectiveness of interpreter services.

Data Analysis

There are no limitations noted in the data analysis process.

Conclusion

The quality improvement project aimed to improve linguistic competence at Homebase Health Care, LLC through the appropriate usage of interpreter services, achieving three objectives: (a) orienting personnel on interpreter assessment and booking, (b) training efficient interpreter use, and (c) increasing utilization for patients with limited English proficiency.

The study examined interpreter service usage over five weeks for 150 patients with limited English proficiency. Providers used interpreters 34 times (average 23%). Weekly variations: Week 1 (10%), Week 2 (19%), Week 3 (27%), Week 4 (24%), and Week 5 (36%). Week 3 had the highest usage, signifying improved integration.

Furthermore, the statistical result showed that the absolute value of the t-statistic (-3.93) is greater than the critical t-value (2.78) presenting that there is a statistically significant difference in the utilization of interpreter services before and after the implementation of the ABC Toolkit.

This quality improvement initiative delved into the utilization of interpreter services by staff and care providers at Homebase Health Care, LLC, focusing on patients with limited English proficiency over a five-week period. The key findings highlight the essential role of the ABC

toolkit in increasing the utilization of interpreter services as the latter plays in enhancing linguistic competence and breaking down language barriers in healthcare delivery.

Usefulness of the Work

The project enhances linguistic competence in care, addressing language barriers, and improving patient outcomes.

Sustainability

Continuous monitoring and adaptation are crucial to sustaining the integration of interpreter services.

Implications for Nursing Practice and Policy

The findings underscore the significance of linguistic competence in nursing practice and inform policies promoting equitable healthcare access.

Suggested Next Steps

To capitalize on the project's success, the next steps should involve expanding the cultural competency training program to encompass a broader array of cultural intricacies, enabling a more comprehensive approach to serving the diverse patient population. Additionally, a thorough assessment of the training program's enduring impact on patient satisfaction, care quality, and healthcare outcomes should be conducted. The insights and best practices gleaned from this initiative should be shared with other healthcare facilities to advance cultural competence across the broader healthcare landscape. To ensure sustained improvement, ongoing education and training programs should be implemented to continually monitor and evaluate healthcare providers' cultural competency. Lastly, active collaboration with regulatory authorities and healthcare organizations is essential to advocate for the standardization of cultural competency training for healthcare providers, ultimately fostering equitable care for all patients.

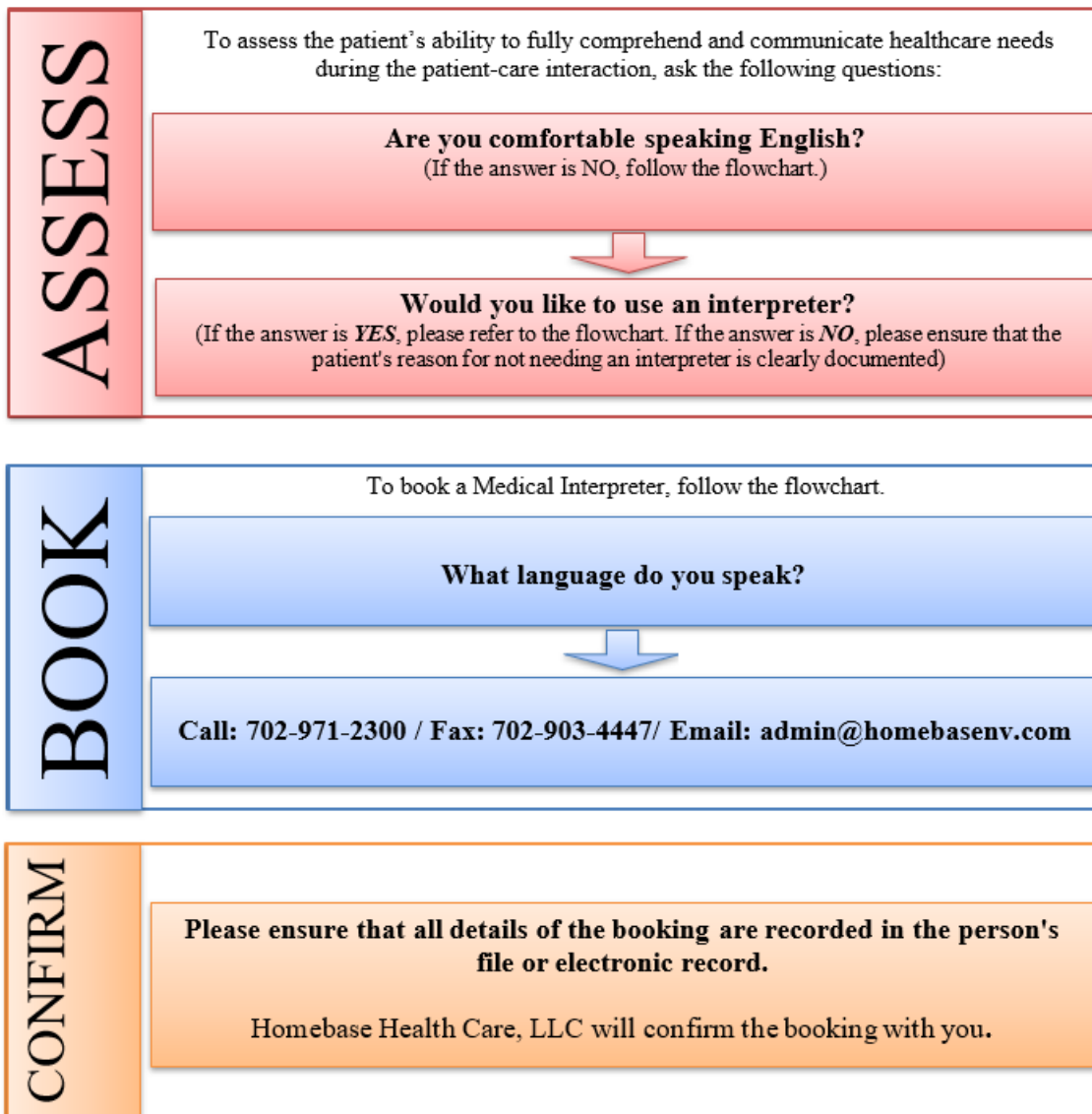
Appendices

Appendix A

(Permission letter to conduct the DNP Project at the Site)

Appendix B

(ABC Toolkit)

DO YOU NEED AN INTERPRETER?

Appendix C

Chart Audit and Data Collection Sheet

Please complete this form honestly. Thank you.

Name of Health Provider: _____

Week Number: [] week 1 [] week 2 [] week 3 [] week 4 [] week 5

Patient Code	Are you comfortable speaking English? Please answer with YES or NO.	Would you like to use an interpreter? Please answer with YES or NO.	Was an interpreter used to complete the patient encounter? Please answer with YES or NO.

Total No. of patients with limited English proficiency attended this week: _____

Total No. of occurrences ABC Toolkit was used this week: _____

Chart Audit and Data Collection Sheet Guidelines

How to measure the rate at which the home-based nurse practitioner or other staff in the project site used the ABC Toolkit when interacting with patients with limited English proficiency.

During the week, each home-based nurse practitioner or other staff in the project site will document the number of patients they attended to with limited English proficiency and the number of times they used the toolkit. For instance, a home-based nurse practitioner may have attended to 4 patients with limited English proficiency and utilized the toolkit twice during the week.

Weekly data will be gathered, and a percentage will be computed based on the information gathered. Using the previous example, the provider's use of the toolkit would be 50%.

Computation = $(\frac{X}{N}) * 100\%$ where N = total number of patients with limited English proficiency attended to:

X= number of times the toolkit was used.

The aggregate percentage results will be summed up and then divided by the total number of home-based nurse practitioners.

Example: Home-based nurse practitioner A has used the toolkit 20% of the time, home-based nurse practitioner B 100% of the time, and home-based nurse practitioner C 60% of the time.

For instance, suppose that a home-based nurse practitioner A has utilized the toolkit 50% of the time, home-based nurse practitioner B has utilized it 100% of the time, and home-based nurse practitioner C has utilized it 70% of the time.

$$\text{Rate} = \frac{(A+B+C)}{3}$$

3

In this case, $\frac{(50+100+70)}{3} = 70\%$

3

Thus, the overall rate of utilization of the toolkit by the home-based nurse practitioner when interacting with patients with limited English proficiency is 70%.

Appendix D

Timeline of the Project Interventions

WEEK	Timeline of the Project Interventions
Week 1	<p>July 5 to 11, 2023</p> <p>July 5 – All personnel were informed of the orientation schedule. They were given an option of the date they prefer to attend the training session. They must confirm their preferred date of attendance.</p> <p>July 6- The initial orientation regarding the use of the ABC Toolkit and the Chart Audit and Data Collection Sheet was conducted.</p> <p>July 7- The 2nd orientation session regarding the use of the ABC Toolkit and the Chart Audit and Data Collection Sheet was conducted.</p> <p>July 10- The last orientation session regarding the use of the ABC Toolkit and the Chart Audit and Data Collection Sheet was conducted.</p> <p>July 11- Starting July 11, all Homebase Health Care, LLC personnel utilized the ABC Toolkit and the Chart Audit and Data Collection Sheet.</p>
Week 2	<p>July 12 to 18, 2023</p> <p>From July 11 to August 11, all Homebase Health Care, LLC personnel utilized the ABC Toolkit and the Chart Audit and Data Collection Sheet.</p> <p>July 14 – Data collected for week 1 was gathered from all personnel for consolidation.</p>
Week 3	<p>July 19 to 25, 2023</p> <p>From July 11 to August 11, all Homebase Health Care, LLC personnel utilized the ABC Toolkit and the Chart Audit and Data Collection Sheet.</p> <p>July 21 – Data collected for week 2 was gathered from all personnel for consolidation.</p>
Week 4	<p>July 26 to August 1, 2023</p> <p>From July 11 to August 11, all Homebase Health Care, LLC personnel utilized the ABC Toolkit and the Chart Audit and Data Collection Sheet.</p> <p>July 28 – Data collected for week 3 was gathered from all personnel for consolidation.</p>
Week 5	<p>August 2 to 8, 2023</p> <p>August 4 – Data collected for week 4 was obtained from all personnel for consolidation.</p> <p>August 11 to 12 – Data collected for weeks 1 to 5 was gathered, consolidated, tabulated, and analyzed.</p>

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